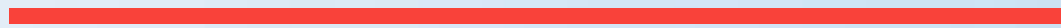


Appendix A

APPENDIX A



Do Minimum Junction Modelling Outputs

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 3b_B2233 Slip road_A29.j9

Path: \\uk.wspgroup.com\central data\Projects\700317xx\70031782 - WSCC - A29 Prelim Design and O\02 WIP\TP Transport planning\01 Model\Junction Modelling\Do Minimum Scenarios

Report generation date: 14/08/2020 16:09:34

«2038 DM, PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2023 DM								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.4	20.22	0.29	C	1.0	24.36	0.51	C
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2038 DM								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.5	25.03	0.33	D	0.8	25.36	0.46	D
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A

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

File summary

File Description

Title	Nyton Road, A29
Location	50.842164°, -0.667523°
Site number	3b
Date	24/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INAA02374
Description	

Units

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

Analysis Options

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

Analysis Set Details

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

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2038 DM	PM	ONE HOUR	16:45	18:15	15	✓

2038 DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3b	B2233 Slip road/ A29	T-Junction	Two-way		1.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A29 Nyton Road South		Major
B	B2233 Slip Road		Minor
C	A29 Nyton Road North		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A29 Nyton Road North	6.80		✓	2.20	71.8	✓	1.25

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - B2233 Slip Road	One lane plus flare	10.00	6.70	3.10	3.00	3.00	✓	1.00	25	82

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
J3b	B-A	569	0.100	0.253	0.159	0.361
J3b	B-C	699	0.103	0.261	-	-
J3b	C-B	616	0.230	0.230	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Nyton Road South		ONE HOUR	✓	782	100.000
B - B2233 Slip Road		ONE HOUR	✓	108	100.000
C - A29 Nyton Road North		ONE HOUR	✓	664	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	0	195	587
	B - B2233 Slip Road	108	0	0
	C - A29 Nyton Road North	664	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	0	1	2
	B - B2233 Slip Road	1	0	0
	C - A29 Nyton Road North	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.46	25.36	0.8	D	99	149
C-AB	0.00	0.00	0.0	A	0	0
C-A					609	914
A-B					179	268
A-C					539	808

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	534	0.000	0	0.0	0.0	0.000	A
B-A	81	20	357	0.228	80	0.0	0.3	12.970	B
C-AB	0	0	956	0.000	0	0.0	0.0	0.000	A
C-A	500	125			500				
A-B	147	37			147				
A-C	442	110			442				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	499	0.000	0	0.0	0.0	0.000	A
B-A	97	24	316	0.307	97	0.3	0.4	16.336	C
C-AB	0	0	903	0.000	0	0.0	0.0	0.000	A
C-A	597	149			597				
AB	175	44			175				
AC	528	132			528				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	447	0.000	0	0.0	0.0	0.000	A
B-A	119	30	261	0.456	117	0.4	0.8	24.888	C
C-AB	0	0	829	0.000	0	0.0	0.0	0.000	A
C-A	731	183			731				
AB	215	54			215				
AC	646	162			646				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	446	0.000	0	0.0	0.0	0.000	A
B-A	119	30	261	0.456	119	0.8	0.8	25.357	D
C-AB	0	0	829	0.000	0	0.0	0.0	0.000	A
C-A	731	183			731				
AB	215	54			215				
AC	646	162			646				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	498	0.000	0	0.0	0.0	0.000	A
B-A	97	24	316	0.307	99	0.8	0.5	16.640	C
C-AB	0	0	903	0.000	0	0.0	0.0	0.000	A
C-A	597	149			597				
AB	175	44			175				
AC	528	132			528				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	533	0.000	0	0.0	0.0	0.000	A
B-A	81	20	357	0.228	82	0.5	0.3	13.137	B
C-AB	0	0	956	0.000	0	0.0	0.0	0.000	A
C-A	500	125			500				
AB	147	37			147				
AC	442	110			442				

Junctions 9
PICADY 9 - Priority Intersection Module
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Filename: 3c_A29_B2233.j9

Path: \\uk.wspgroup.com\central data\Projects\700317xx\70031782 - WSCC - A29 Prelim Design and O\02 WIP\TP Transport planning\01 Model\Junction Modelling\Do Minimum Scenarios

Report generation date: 14/08/2020 16:17:45

»2023 DM, AM

»2023 DM, PM

»2038 DM, AM

»2038 DM, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2023 DM								
Stream B-C	1.1	16.35	0.53	C	2.5	24.81	0.73	C
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	40.8	152.17	1.04	F	1.3	14.48	0.55	B
2038 DM								
Stream B-C	1.4	19.07	0.59	C	3.5	34.07	0.79	D
Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	79.3	325.41	1.12	F	3.1	19.79	0.71	C

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

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

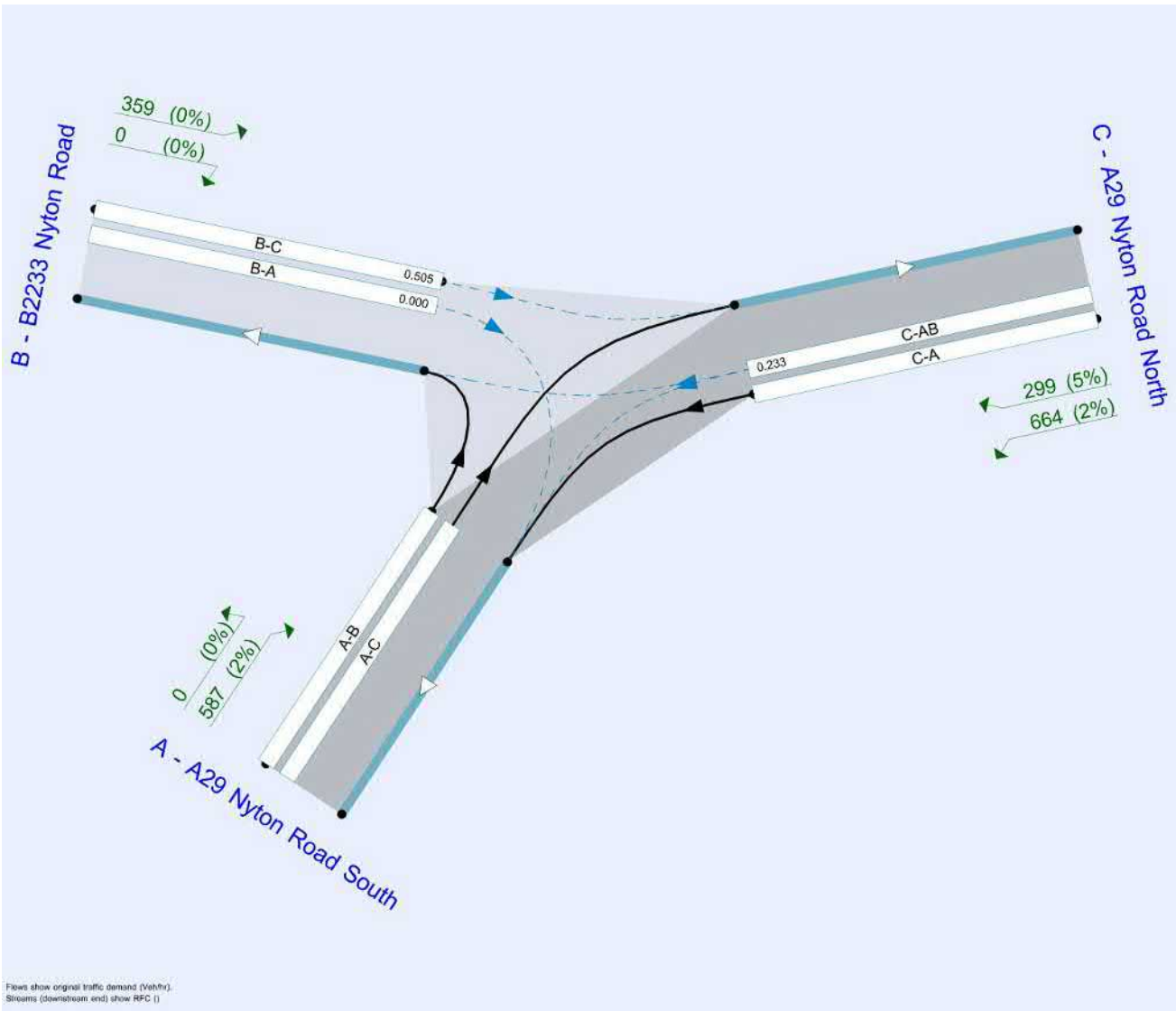
File summary

File Description

Title	Nyton Road, A29
Location	50.842164°, -0.667523°
Site number	3a
Date	24/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INAA02374
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 DM	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023 DM	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038 DM	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038 DM	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2023 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - B2233 Nyton Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3c	B2233 Nyton Road/ A29	T-Junction	Two-way		60.44	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A29 Nyton Road South		Major
B	B2233 Nyton Road		Minor
C	A29 Nyton Road North		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A29 Nyton Road North	6.70		✓	3.00	36.1	✓	4.43

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - B2233 Nyton Road	One lane plus flare	10.00	3.20	2.80	2.70	2.60	✓	1.00	67	36

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
J3c	B-A	621	0.110	0.277	0.174	0.396
J3c	B-C	664	0.099	0.249	-	-
J3c	C-B	647	0.243	0.243	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Nyton Road South		ONE HOUR	✓	642	100.000
B - B2233 Nyton Road		ONE HOUR	✓	221	100.000
C - A29 Nyton Road North		ONE HOUR	✓	936	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	0	0	642	
B - B2233 Nyton Road	0	0	221	
C - A29 Nyton Road North	499	437	0	

Proportions

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	0.00	0.00	1.00	
B - B2233 Nyton Road	0.00	0.00	1.00	
C - A29 Nyton Road North	0.53	0.47	0.00	

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	0	0	4	
B - B2233 Nyton Road	0	0	4	
C - A29 Nyton Road North	3	2	0	

Average PCU Per Veh

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	1.000	1.000	1.036	
B - B2233 Nyton Road	1.000	1.000	1.038	
C - A29 Nyton Road North	1.035	1.015	1.000	

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Nyton Road South	07:45-08:00	483	501
	08:00-08:15	577	598
	08:15-08:30	707	733
	08:30-08:45	707	733
	08:45-09:00	577	598
	09:00-09:15	483	501
B - B2233 Nyton Road	07:45-08:00	166	173
	08:00-08:15	199	206
	08:15-08:30	243	253
	08:30-08:45	243	253
	08:45-09:00	199	206
	09:00-09:15	166	173
C - A29 Nyton Road North	07:45-08:00	705	723
	08:00-08:15	842	863
	08:15-08:30	1031	1057
	08:30-08:45	1031	1057
	08:45-09:00	842	863
	09:00-09:15	705	723

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.53	16.35	1.1	C	203	304
B-A	0.00	0.00	0.0	A	0	0
C-AB	1.04	152.17	40.8	F	639	959
C-A					220	330
AB					0	0
AC					589	884

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	166	42	519	0.321	165	0.0	0.5	10.108	B
B-A	0	0	282	0.000	0	0.0	0.0	0.000	A
C-AB	362	91	569	0.636	355	0.0	1.8	16.375	C
C-A	343	86			343				
AB	0	0			0				
AC	483	121			483				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	199	50	496	0.401	198	0.5	0.7	12.064	B
B-A	0	0	213	0.000	0	0.0	0.0	0.000	A
C-AB	524	131	658	0.796	515	1.8	4.1	24.311	C
C-A	317	79			317				
AB	0	0			0				
AC	577	144			577				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	243	61	463	0.525	242	0.7	1.1	16.124	C
B-A	0	0	120	0.000	0	0.0	0.0	0.000	A
C-AB	1031	258	988	1.044	946	4.1	25.3	63.440	F
C-A	0	0			0				
AB	0	0			0				
AC	707	177			707				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	243	61	463	0.525	243	1.1	1.1	16.347	C
B-A	0	0	97	0.000	0	0.0	0.0	0.000	A
C-AB	1031	258	989	1.042	969	25.3	40.7	133.320	F
C-A	0	0			0				
AB	0	0			0				
AC	707	177			707				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	199	50	496	0.401	200	1.1	0.7	12.258	B
B-A	0	0	170	0.000	0	0.0	0.0	0.000	A
C-AB	524	131	661	0.793	659	40.7	7.0	152.167	F
C-A	317	79			317				
AB	0	0			0				
AC	577	144			577				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	166	42	519	0.321	167	0.7	0.5	10.262	B
B-A	0	0	272	0.000	0	0.0	0.0	0.000	A
C-AB	362	91	570	0.635	382	7.0	2.1	21.210	C
C-A	343	86			343				
AB	0	0			0				
AC	483	121			483				

2023 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - B2233 Nyton Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3c	B2233 Nyton Road/ A29	T-Junction	Two-way		7.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Nyton Road South		ONE HOUR	✓	484	100.000
B - B2233 Nyton Road		ONE HOUR	✓	348	100.000
C - A29 Nyton Road North		ONE HOUR	✓	861	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0	0	484
B - B2233 Nyton Road	0	0	348
C - A29 Nyton Road North	613	248	0

Proportions

From	To		
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0.00	0.00	1.00
B - B2233 Nyton Road	0.00	0.00	1.00
C - A29 Nyton Road North	0.71	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	0	0	2	
B - B2233 Nyton Road	0	0	0	
C - A29 Nyton Road North	2	3	0	

Average PCU Per Veh

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	1.000	1.003	1.020	
B - B2233 Nyton Road	1.000	1.000	1.003	
C - A29 Nyton Road North	1.021	1.031	1.000	

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Nyton Road South	16:45-17:00	364	372
	17:00-17:15	435	444
	17:15-17:30	533	543
	17:30-17:45	533	543
	17:45-18:00	435	444
	18:00-18:15	364	372
B - B2233 Nyton Road	16:45-17:00	262	263
	17:00-17:15	313	314
	17:15-17:30	383	384
	17:30-17:45	383	384
	17:45-18:00	313	314
	18:00-18:15	262	263
C - A29 Nyton Road North	16:45-17:00	648	664
	17:00-17:15	774	792
	17:15-17:30	948	971
	17:30-17:45	948	971
	17:45-18:00	774	792
	18:00-18:15	648	664

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.73	24.81	2.5	C	319	479
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.55	14.48	1.3	B	239	359
C-A					551	826
AB					0	0
AC					444	666

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	262	65	570	0.460	259	0.0	0.8	11.463	B
B-A	0	0	359	0.000	0	0.0	0.0	0.000	A
C-AB	188	47	545	0.346	186	0.0	0.5	9.988	A
C-A	460	115			460				
AB	0	0			0				
AC	364	91			364				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	313	78	552	0.567	311	0.8	1.3	14.857	B
B-A	0	0	308	0.000	0	0.0	0.0	0.000	A
C-AB	229	57	537	0.426	228	0.5	0.7	11.624	B
C-A	545	136			545				
AB	0	0			0				
AC	435	109			435				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	383	96	527	0.727	378	1.3	2.4	23.519	C
B-A	0	0	237	0.000	0	0.0	0.0	0.000	A
C-AB	301	75	550	0.547	299	0.7	1.3	14.253	B
C-A	647	162			647				
AB	0	0			0				
AC	533	133			533				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	383	96	527	0.727	383	2.4	2.5	24.807	C
B-A	0	0	237	0.000	0	0.0	0.0	0.000	A
C-AB	301	75	550	0.547	300	1.3	1.3	14.476	B
C-A	647	162			647				
AB	0	0			0				
AC	533	133			533				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	313	78	552	0.567	318	2.5	1.4	15.681	C
B-A	0	0	307	0.000	0	0.0	0.0	0.000	A
C-AB	229	57	537	0.427	231	1.3	0.8	11.851	B
C-A	545	136			545				
AB	0	0			0				
AC	435	109			435				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	262	65	570	0.460	264	1.4	0.9	11.854	B
B-A	0	0	358	0.000	0	0.0	0.0	0.000	A
C-AB	188	47	545	0.346	189	0.8	0.5	10.160	B
C-A	460	115			460				
AB	0	0			0				
AC	364	91			364				

2038 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - B2233 Nyton Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3c	B2233 Nyton Road/ A29	T-Junction	Two-way		135.11	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2038 DM	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Nyton Road South		ONE HOUR	✓	668	100.000
B - B2233 Nyton Road		ONE HOUR	✓	248	100.000
C - A29 Nyton Road North		ONE HOUR	✓	1098	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0	0	668
B - B2233 Nyton Road	0	0	248
C - A29 Nyton Road North	635	463	0

Proportions

From	To		
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0.00	0.00	1.00
B - B2233 Nyton Road	0.00	0.00	1.00
C - A29 Nyton Road North	0.58	0.42	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	0	0	3	
B - B2233 Nyton Road	0	0	3	
C - A29 Nyton Road North	3	1	0	

Average PCU Per Veh

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	1.000	1.000	1.034	
B - B2233 Nyton Road	1.000	1.000	1.028	
C - A29 Nyton Road North	1.029	1.015	1.000	

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Nyton Road South	07:45-08:00	503	520
	08:00-08:15	601	621
	08:15-08:30	735	761
	08:30-08:45	735	761
	08:45-09:00	601	621
	09:00-09:15	503	520
B - B2233 Nyton Road	07:45-08:00	187	192
	08:00-08:15	223	229
	08:15-08:30	273	281
	08:30-08:45	273	281
	08:45-09:00	223	229
	09:00-09:15	187	192
C - A29 Nyton Road North	07:45-08:00	827	845
	08:00-08:15	987	1010
	08:15-08:30	1209	1236
	08:30-08:45	1209	1236
	08:45-09:00	987	1010
	09:00-09:15	827	845

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.59	19.07	1.4	C	228	341
B-A	0.00	0.00	0.0	A	0	0
C-AB	1.12	325.41	79.3	F	759	1138
C-A					249	373
AB					0	0
AC					613	919

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	187	47	520	0.359	185	0.0	0.6	10.673	B
B-A	0	0	251	0.000	0	0.0	0.0	0.000	A
C-AB	409	102	601	0.680	400	0.0	2.3	17.334	C
C-A	418	104			418				
AB	0	0			0				
AC	503	126			503				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	223	56	495	0.450	222	0.6	0.8	13.123	B
B-A	0	0	176	0.000	0	0.0	0.0	0.000	A
C-AB	658	164	771	0.853	642	2.3	6.3	26.814	D
C-A	329	82			329				
AB	0	0			0				
AC	601	150			601				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	273	68	461	0.592	271	0.8	1.4	18.652	C
B-A	0	0	72	0.000	0	0.0	0.0	0.000	A
C-AB	1209	302	1078	1.121	1055	6.3	44.9	94.370	F
C-A	0	0			0				
AB	0	0			0				
AC	735	184			735				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	273	68	461	0.592	273	1.4	1.4	19.070	C
B-A	0	0	31	0.000	0	0.0	0.0	0.000	A
C-AB	1209	302	1079	1.120	1072	44.9	79.2	228.429	F
C-A	0	0			0				
AB	0	0			0				
AC	735	184			735				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	223	56	495	0.450	225	1.4	0.8	13.447	B
B-A	0	0	93	0.000	0	0.0	0.0	0.000	A
C-AB	658	164	773	0.850	829	79.2	36.3	325.410	F
C-A	329	82			329				
AB	0	0			0				
AC	601	150			601				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	187	47	520	0.359	188	0.8	0.6	10.880	B
B-A	0	0	204	0.000	0	0.0	0.0	0.000	A
C-AB	409	102	602	0.679	543	36.3	2.8	105.032	F
C-A	418	104			418				
AB	0	0			0				
AC	503	126			503				

2038 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - B2233 Nyton Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3c	B2233 Nyton Road/ A29	T-Junction	Two-way		10.08	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2038 DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Nyton Road South		ONE HOUR	✓	587	100.000
B - B2233 Nyton Road		ONE HOUR	✓	359	100.000
C - A29 Nyton Road North		ONE HOUR	✓	963	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0	0	587
B - B2233 Nyton Road	0	0	359
C - A29 Nyton Road North	664	299	0

Proportions

From	To		
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0.00	0.00	1.00
B - B2233 Nyton Road	0.00	0.00	1.00
C - A29 Nyton Road North	0.69	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	0	0	2	
B - B2233 Nyton Road	0	0	0	
C - A29 Nyton Road North	2	5	0	

Average PCU Per Veh

From	To			
	A - A29 Nyton Road South	B - B2233 Nyton Road	C - A29 Nyton Road North	
A - A29 Nyton Road South	1.000	1.004	1.016	
B - B2233 Nyton Road	1.000	1.000	1.004	
C - A29 Nyton Road North	1.018	1.049	1.000	

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Nyton Road South	16:45-17:00	442	449
	17:00-17:15	528	536
	17:15-17:30	646	657
	17:30-17:45	646	657
	17:45-18:00	528	536
	18:00-18:15	442	449
B - B2233 Nyton Road	16:45-17:00	270	271
	17:00-17:15	323	324
	17:15-17:30	395	397
	17:30-17:45	395	397
	17:45-18:00	323	324
	18:00-18:15	270	271
C - A29 Nyton Road North	16:45-17:00	725	745
	17:00-17:15	866	890
	17:15-17:30	1060	1090
	17:30-17:45	1060	1090
	17:45-18:00	866	890
	18:00-18:15	725	745

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.79	34.07	3.5	D	329	494
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.71	19.79	3.1	C	326	488
C-A					558	837
AB					0	0
AC					539	808

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	270	68	549	0.492	267	0.0	0.9	12.567	B
B-A	0	0	314	0.000	0	0.0	0.0	0.000	A
C-AB	232	58	528	0.439	229	0.0	0.8	11.926	B
C-A	493	123			493				
AB	0	0			0				
AC	442	110			442				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	323	81	528	0.612	320	0.9	1.5	17.175	C
B-A	0	0	253	0.000	0	0.0	0.0	0.000	A
C-AB	294	74	539	0.546	292	0.8	1.3	14.545	B
C-A	572	143			572				
AB	0	0			0				
AC	528	132			528				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	395	99	498	0.794	388	1.5	3.3	30.857	D
B-A	0	0	170	0.000	0	0.0	0.0	0.000	A
C-AB	451	113	637	0.708	444	1.3	2.9	18.643	C
C-A	610	152			610				
AB	0	0			0				
AC	646	162			646				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	395	99	498	0.794	394	3.3	3.5	34.073	D
B-A	0	0	168	0.000	0	0.0	0.0	0.000	A
C-AB	451	113	636	0.709	450	2.9	3.1	19.793	C
C-A	610	152			610				
AB	0	0			0				
AC	646	162			646				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	323	81	528	0.612	330	3.5	1.6	18.874	C
B-A	0	0	250	0.000	0	0.0	0.0	0.000	A
C-AB	294	74	537	0.548	301	3.1	1.4	15.615	C
C-A	572	143			572				
AB	0	0			0				
AC	528	132			528				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	270	68	549	0.492	273	1.6	1.0	13.142	B
B-A	0	0	312	0.000	0	0.0	0.0	0.000	A
C-AB	232	58	527	0.440	234	1.4	0.8	12.359	B
C-A	493	123			493				
AB	0	0			0				
AC	442	110			442				

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 4_A29 Fontwell Avenue_B2233 Barnham Road.j9
Path: \\uk.wspgroup.com\central data\Projects\700317xx\70031782 - WSCC - A29 Prelim Design and O\02 WIP\TP Transport planning\01 Model\Junction Modelling\Do Minimum Scenarios
Report generation date: 14/08/2020 16:27:36

- »2023 DM, AM
- »2023 DM, PM
- »2038 DM, AM
- »2038 DM, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2023 DM								
A - A29 Fontwell Avenue	2.1	13.70	0.68	B	28.5	124.36	1.04	F
B - B2233 Barnham Road	4.4	21.22	0.82	C	1.8	11.19	0.64	B
C - Nyton Road	1.4	5.51	0.59	A	1.2	4.95	0.56	A
2038 DM								
A - A29 Fontwell Avenue	12.0	58.31	0.95	F	56.2	220.96	1.12	F
B - B2233 Barnham Road	15.2	66.80	0.97	F	4.8	23.03	0.84	C
C - Nyton Road	1.7	6.11	0.63	A	1.8	6.30	0.64	A

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

File summary

File Description

Title	A29, B2233, Nyton Road
Location	50.842179°, -0.660600°
Site number	4
Date	24/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INAA02374
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 DM	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023 DM	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038 DM	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038 DM	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2023 DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4	A29 Fontwell Avenue/ Barnham Road/ Nyton Road	Standard Roundabout		A, B, C	12.84	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A29 Fontwell Avenue	
B	B2233 Barnham Road	
C	Nyton Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A29 Fontwell Avenue	4.50	4.50	0.0	6.3	25.0	77.0	
B - B2233 Barnham Road	2.70	4.00	15.4	999.0	25.0	18.0	
C - Nyton Road	3.60	6.50	16.3	999.0	25.0	20.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A29 Fontwell Avenue	0.433	996
B - B2233 Barnham Road	0.593	1229
C - Nyton Road	0.706	1787

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

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Fontwell Avenue		ONE HOUR	✓	515	100.000
B - B2233 Barnham Road		ONE HOUR	✓	709	100.000
C - Nyton Road		ONE HOUR	✓	864	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A29 Fontwell Avenue	B - B2233 Barnham Road	C - Nyton Road
From	A - A29 Fontwell Avenue	0	134	381
	B - B2233 Barnham Road	156	0	553
	C - Nyton Road	572	290	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A29 Fontwell Avenue	B - B2233 Barnham Road	C - Nyton Road
From	A - A29 Fontwell Avenue	0	3	2
	B - B2233 Barnham Road	2	0	3
	C - Nyton Road	3	6	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Fontwell Avenue	0.68	13.70	2.1	B	473	709
B - B2233 Barnham Road	0.82	21.22	4.4	C	651	976
C - Nyton Road	0.59	5.51	1.4	A	793	1189

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	388	97	219	875	0.443	385	545	0.0	0.8	7.295	A
B - B2233 Barnham Road	534	133	286	1027	0.520	530	318	0.0	1.1	7.183	A
C - Nyton Road	650	163	117	1642	0.396	648	699	0.0	0.7	3.610	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	463	116	262	856	0.541	461	653	0.8	1.2	9.097	A
B - B2233 Barnham Road	637	159	343	993	0.642	635	380	1.1	1.7	9.970	A
C - Nyton Road	776	194	140	1626	0.477	775	838	0.7	0.9	4.226	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	567	142	320	829	0.684	563	798	1.2	2.1	13.343	B
B - B2233 Barnham Road	781	195	419	948	0.823	771	465	1.7	4.2	19.297	C
C - Nyton Road	951	238	170	1605	0.592	949	1020	0.9	1.4	5.466	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	567	142	321	829	0.684	567	801	2.1	2.1	13.697	B
B - B2233 Barnham Road	781	195	421	947	0.824	780	467	4.2	4.4	21.219	C
C - Nyton Road	951	238	172	1604	0.593	951	1029	1.4	1.4	5.512	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	463	116	263	855	0.541	467	658	2.1	1.2	9.348	A
B - B2233 Barnham Road	637	159	347	991	0.643	648	383	4.4	1.9	10.783	B
C - Nyton Road	776	194	142	1624	0.478	779	852	1.4	0.9	4.268	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	388	97	220	874	0.443	389	549	1.2	0.8	7.447	A
B - B2233 Barnham Road	534	133	289	1025	0.521	537	320	1.9	1.1	7.424	A
C - Nyton Road	650	163	118	1641	0.396	651	708	0.9	0.7	3.642	A

2023 DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4	A29 Fontwell Avenue/ Barnham Road/ Nyton Road	Standard Roundabout		A, B, C	48.19	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Fontwell Avenue		ONE HOUR	✓	722	100.000
B - B2233 Barnham Road		ONE HOUR	✓	528	100.000
C - Nyton Road		ONE HOUR	✓	831	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A29 Fontwell Avenue	B - B2233 Barnham Road	C - Nyton Road
From	A - A29 Fontwell Avenue	0	233	489
	B - B2233 Barnham Road	157	0	371
	C - Nyton Road	388	443	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A29 Fontwell Avenue	B - B2233 Barnham Road	C - Nyton Road
From	A - A29 Fontwell Avenue	0	1	3
	B - B2233 Barnham Road	2	0	2
	C - Nyton Road	2	1	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Fontwell Avenue	1.04	124.36	28.5	F	663	994
B - B2233 Barnham Road	0.64	11.19	1.8	B	485	727
C - Nyton Road	0.56	4.95	1.2	A	763	1144

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	544	136	332	832	0.653	536	408	0.0	1.8	11.891	B
B - B2233 Barnham Road	398	99	363	991	0.401	395	505	0.0	0.7	6.013	A
C - Nyton Road	626	156	117	1682	0.372	623	641	0.0	0.6	3.394	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	649	162	398	804	0.807	641	489	1.8	3.7	21.106	C
B - B2233 Barnham Road	475	119	434	948	0.501	473	605	0.7	1.0	7.558	A
C - Nyton Road	747	187	141	1665	0.449	746	767	0.6	0.8	3.915	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	795	199	487	766	1.037	736	598	3.7	18.4	69.459	F
B - B2233 Barnham Road	581	145	499	910	0.639	578	724	1.0	1.7	10.771	B
C - Nyton Road	915	229	172	1643	0.557	913	905	0.8	1.2	4.921	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	795	199	488	766	1.038	755	600	18.4	28.5	124.364	F
B - B2233 Barnham Road	581	145	511	902	0.644	581	731	1.7	1.8	11.191	B
C - Nyton Road	915	229	173	1642	0.557	915	919	1.2	1.2	4.948	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	649	162	399	804	0.807	742	492	28.5	5.2	72.920	F
B - B2233 Barnham Road	475	119	503	907	0.523	477	639	1.8	1.1	8.423	A
C - Nyton Road	747	187	142	1664	0.449	749	838	1.2	0.8	3.939	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	544	136	334	832	0.654	556	411	5.2	2.0	13.634	B
B - B2233 Barnham Road	398	99	377	983	0.404	399	514	1.1	0.7	6.186	A
C - Nyton Road	626	156	119	1681	0.372	627	657	0.8	0.6	3.416	A

2038 DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4	A29 Fontwell Avenue/ Barnham Road/ Nyton Road	Standard Roundabout		A, B, C	41.07	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2038 DM	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Fontwell Avenue		ONE HOUR	✓	717	100.000
B - B2233 Barnham Road		ONE HOUR	✓	772	100.000
C - Nyton Road		ONE HOUR	✓	916	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A29 Fontwell Avenue	B - B2233 Barnham Road	C - Nyton Road
From	A - A29 Fontwell Avenue	0	210	507
	B - B2233 Barnham Road	178	0	594
	C - Nyton Road	620	294	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A29 Fontwell Avenue	B - B2233 Barnham Road	C - Nyton Road
From	A - A29 Fontwell Avenue	0	3	2
	B - B2233 Barnham Road	2	0	3
	C - Nyton Road	2	5	2

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Fontwell Avenue	0.95	58.31	12.0	F	658	987
B - B2233 Barnham Road	0.97	66.80	15.2	F	708	1063
C - Nyton Road	0.63	6.11	1.7	A	840	1260

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	540	135	222	876	0.616	534	597	0.0	1.6	10.344	B
B - B2233 Barnham Road	581	145	379	975	0.596	575	377	0.0	1.4	8.893	A
C - Nyton Road	689	172	133	1639	0.421	687	821	0.0	0.7	3.770	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	645	161	265	856	0.753	639	715	1.6	2.8	16.211	C
B - B2233 Barnham Road	694	174	454	931	0.746	689	451	1.4	2.8	14.565	B
C - Nyton Road	823	206	159	1620	0.508	822	984	0.7	1.0	4.502	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	789	197	325	830	0.951	762	869	2.8	9.8	41.620	E
B - B2233 Barnham Road	850	212	541	879	0.966	816	546	2.8	11.2	43.074	E
C - Nyton Road	1008	252	188	1600	0.630	1006	1169	1.0	1.7	6.031	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	789	197	326	830	0.952	780	875	9.8	12.0	58.307	F
B - B2233 Barnham Road	850	212	554	872	0.975	834	552	11.2	15.2	66.801	F
C - Nyton Road	1008	252	192	1597	0.631	1008	1195	1.7	1.7	6.111	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	645	161	267	856	0.753	680	730	12.0	3.3	23.706	C
B - B2233 Barnham Road	694	174	482	914	0.759	741	464	15.2	3.4	25.398	D
C - Nyton Road	823	206	171	1612	0.511	826	1052	1.7	1.1	4.595	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	540	135	223	875	0.617	546	603	3.3	1.7	11.159	B
B - B2233 Barnham Road	581	145	388	969	0.600	589	382	3.4	1.5	9.636	A
C - Nyton Road	689	172	136	1637	0.421	691	841	1.1	0.7	3.810	A

2038 DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J4	A29 Fontwell Avenue/ Barnham Road/ Nyton Road	Standard Roundabout		A, B, C	79.75	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2038 DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Fontwell Avenue		ONE HOUR	✓	772	100.000
B - B2233 Barnham Road		ONE HOUR	✓	713	100.000
C - Nyton Road		ONE HOUR	✓	941	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A29 Fontwell Avenue	B - B2233 Barnham Road	C - Nyton Road
From	A - A29 Fontwell Avenue	0	310	462
	B - B2233 Barnham Road	205	0	508
	C - Nyton Road	471	470	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A29 Fontwell Avenue	B - B2233 Barnham Road	C - Nyton Road
From	A - A29 Fontwell Avenue	0	1	3
	B - B2233 Barnham Road	2	0	2
	C - Nyton Road	2	1	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Fontwell Avenue	1.12	220.96	56.2	F	708	1063
B - B2233 Barnham Road	0.84	23.03	4.8	C	654	981
C - Nyton Road	0.64	6.30	1.8	A	863	1295

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	581	145	352	827	0.703	572	506	0.0	2.2	13.708	B
B - B2233 Barnham Road	537	134	342	1002	0.536	532	582	0.0	1.1	7.597	A
C - Nyton Road	708	177	153	1658	0.427	705	722	0.0	0.7	3.768	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	694	174	422	797	0.871	681	606	2.2	5.5	28.323	D
B - B2233 Barnham Road	641	160	408	963	0.666	638	695	1.1	1.9	10.968	B
C - Nyton Road	846	211	183	1637	0.517	845	862	0.7	1.1	4.538	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	850	212	516	757	1.123	744	740	5.5	32.1	106.346	F
B - B2233 Barnham Road	785	196	445	941	0.835	775	815	1.9	4.5	20.561	C
C - Nyton Road	1036	259	223	1609	0.644	1033	997	1.1	1.8	6.225	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	850	212	517	756	1.124	753	744	32.1	56.2	220.961	F
B - B2233 Barnham Road	785	196	451	937	0.838	784	820	4.5	4.8	23.031	C
C - Nyton Road	1036	259	225	1607	0.645	1036	1009	1.8	1.8	6.304	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	694	174	424	796	0.872	782	612	56.2	34.2	210.035	F
B - B2233 Barnham Road	641	160	468	927	0.692	651	738	4.8	2.3	13.471	B
C - Nyton Road	846	211	187	1634	0.518	849	932	1.8	1.1	4.602	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Fontwell Avenue	581	145	355	826	0.704	707	511	34.2	2.6	55.406	F
B - B2233 Barnham Road	537	134	423	953	0.563	541	639	2.3	1.3	8.811	A
C - Nyton Road	708	177	156	1656	0.428	710	809	1.1	0.8	3.809	A

Basic Results Summary
Basic Results Summary

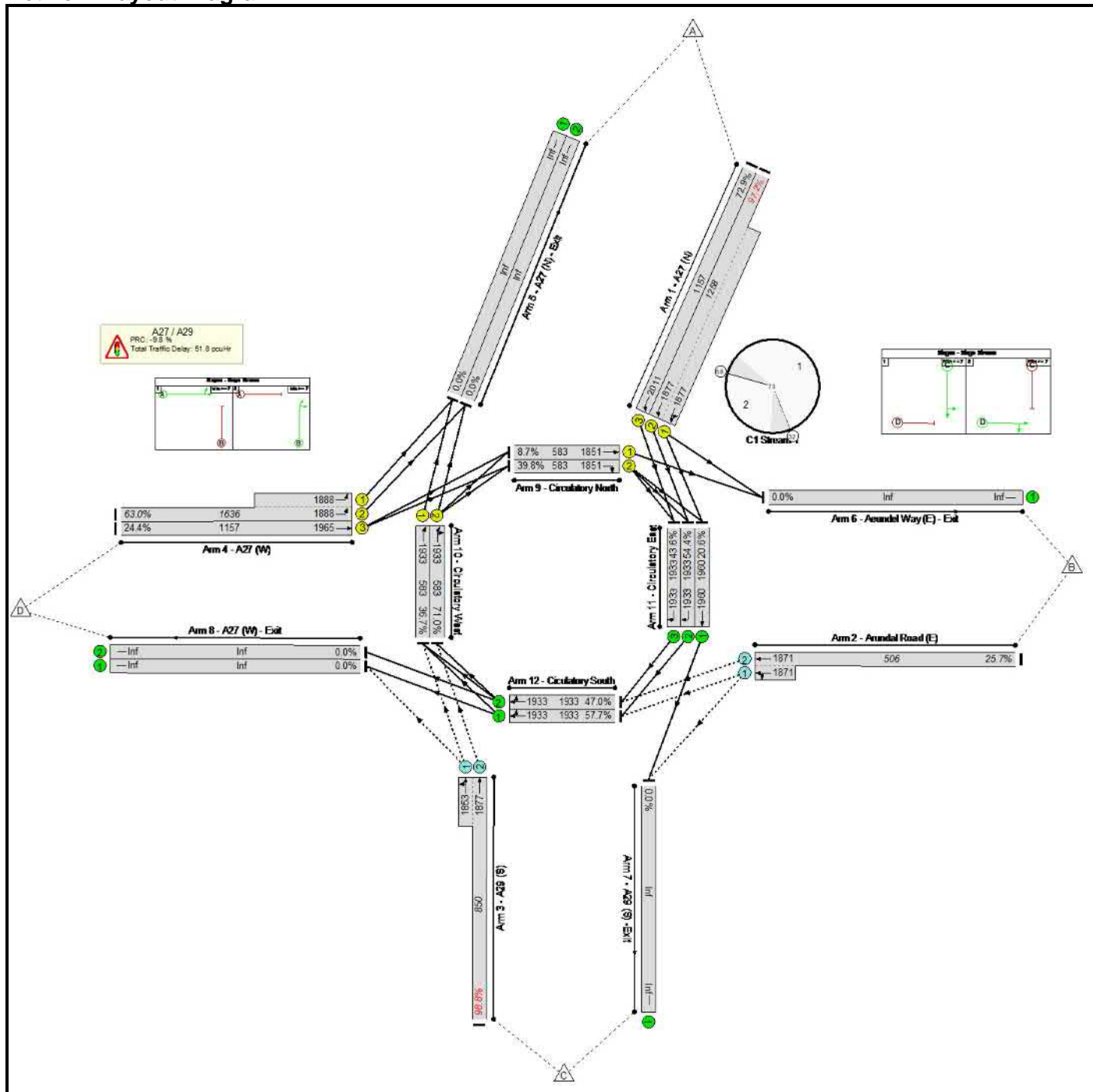
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	5_A27 - A29.lsg3x
Author:	
Company:	
Address:	

Basic Results Summary

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

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	98.8%	1927	0	0	51.8	-	-
A27 / A29	-	-	-		-	-	-	-	-	-	98.8%	1927	0	0	51.8	-	-
1/2+1/1	A27 (N) Left Ahead	U	C		1	41	-	1223	1877:1877	1258	97.2%	-	-	-	15.5	45.7	31.2
1/3	A27 (N) Ahead	U	C		1	41	-	843	2011	1157	72.9%	-	-	-	4.0	17.0	13.7
2/2+2/1	Arundal Road (E) Left Ahead	O	-		-	-	-	130	1871:1871	506	25.7%	260	0	0	0.5	13.5	0.9
3/2+3/1	A29 (S) Left Ahead	O	-		-	-	-	840	1877:1853	850	98.8%	1667	0	0	16.9	72.5	36.9
4/2+4/1	A27 (W) Left	U	A		1	42	-	1030	1888:1888	1636	63.0%	-	-	-	3.3	11.4	6.7
4/3	A27 (W) Ahead	U	A		1	42	-	283	1965	1157	24.4%	-	-	-	0.7	9.3	2.9
9/1	Circulatory North Ahead	U	D		1	22	-	51	1851	583	8.7%	-	-	-	0.3	22.9	0.7
9/2	Circulatory North Right	U	D		1	22	-	232	1851	583	39.8%	-	-	-	1.7	25.9	3.1
10/1	Circulatory West Ahead	U	B		1	21	-	214	1933	583	36.7%	-	-	-	1.9	31.9	3.1
10/2	Circulatory West Ahead Right	U	B		1	21	-	420	1933	583	71.0%	-	-	-	4.7	40.7	7.1
11/1	Circulatory East Ahead	U	-		-	-	-	404	1960	1960	20.6%	-	-	-	0.1	1.2	0.1
11/2	Circulatory East Right	U	-		-	-	-	1051	1933	1933	54.4%	-	-	-	0.6	2.0	0.6
11/3	Circulatory East Right	U	-		-	-	-	843	1933	1933	43.6%	-	-	-	0.4	1.9	12.2
12/1	Circulatory South Ahead Right	U	-		-	-	-	1116	1933	1933	57.7%	-	-	-	0.7	2.2	0.7
12/2	Circulatory South Ahead Right	U	-		-	-	-	908	1933	1933	47.0%	-	-	-	0.4	1.8	0.4

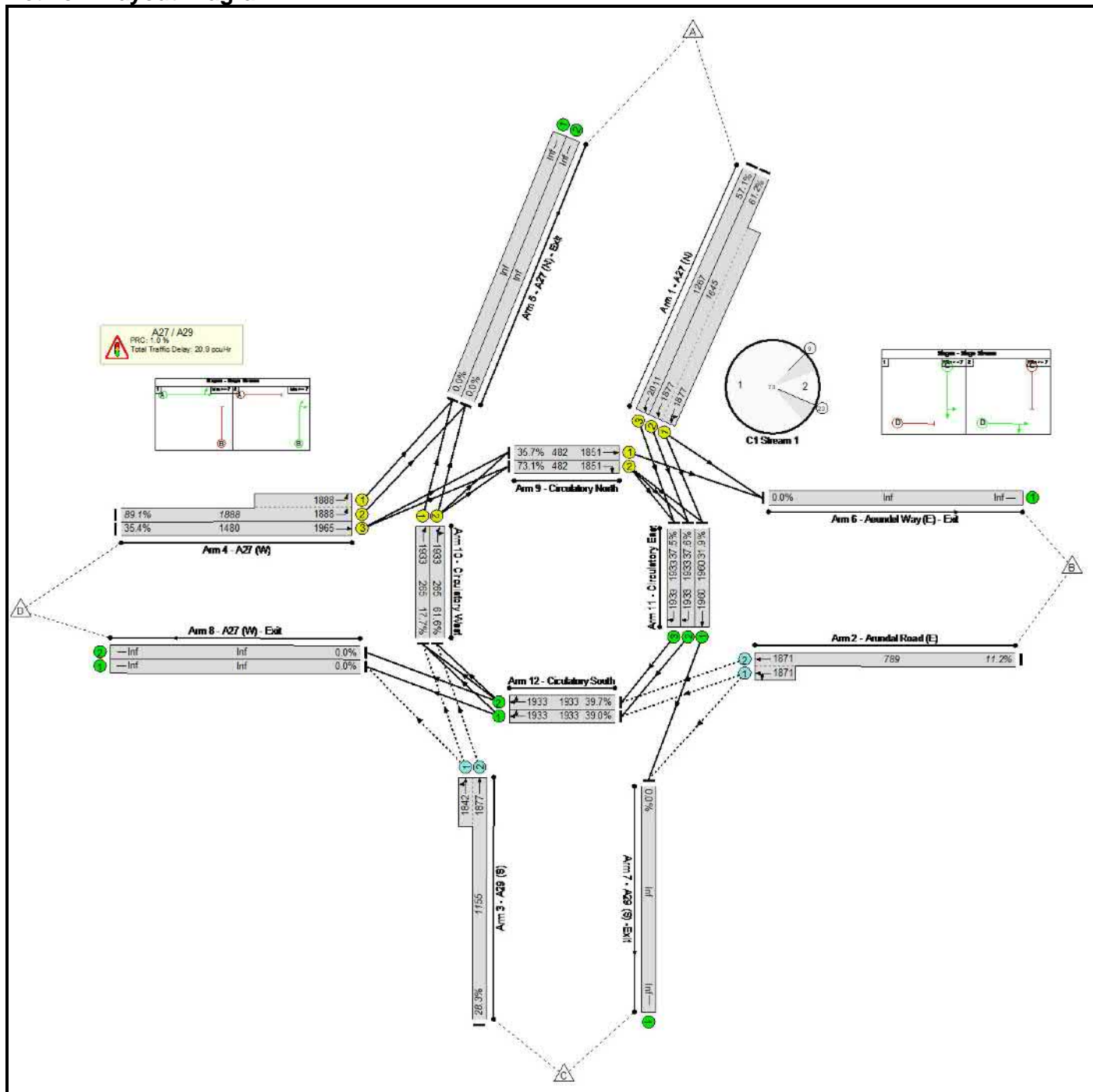
Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%)	26.8	Total Delay for Signalled Lanes (pcuHr)	10.58	Cycle Time (s)	73
C1	Stream: 2	PRC for Signalled Lanes (%)	-8.0	Total Delay for Signalled Lanes (pcuHr)	21.51	Cycle Time (s)	73
		PRC Over All Lanes (%)	-9.8	Total Delay Over All Lanes(pcuHr)	51.80		

Basic Results Summary

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

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	89.1%	830	0	0	20.9	-	-
A27 / A29	-	-	-		-	-	-	-	-	-	89.1%	830	0	0	20.9	-	-
1/2+1/1	A27 (N) Left Ahead	U	C		1	45	-	1007	1877:1877	1645	61.2%	-	-	-	2.9	10.3	9.4
1/3	A27 (N) Ahead	U	C		1	45	-	723	2011	1267	57.1%	-	-	-	2.2	11.1	9.1
2/2+2/1	Arundal Road (E) Left Ahead	O	-		-	-	-	88	1871:1871	789	11.2%	176	0	0	0.1	4.8	0.3
3/2+3/1	A29 (S) Left Ahead	O	-		-	-	-	327	1877:1842	1155	28.3%	654	0	0	0.4	4.9	1.3
4/2+4/1	A27 (W) Left	U	A		1	54	-	1682	1888:1888	1888	89.1%	-	-	-	5.8	12.4	11.5
4/3	A27 (W) Ahead	U	A		1	54	-	524	1965	1480	35.4%	-	-	-	0.7	4.9	3.8
9/1	Circulatory North Ahead	U	D		1	18	-	172	1851	482	35.7%	-	-	-	1.3	26.5	2.4
9/2	Circulatory North Right	U	D		1	18	-	352	1851	482	73.1%	-	-	-	3.5	35.6	5.7
10/1	Circulatory West Ahead	U	B		1	9	-	47	1933	265	17.7%	-	-	-	0.4	33.7	0.9
10/2	Circulatory West Ahead Right	U	B		1	9	-	163	1933	265	61.6%	-	-	-	2.0	44.1	3.9
11/1	Circulatory East Ahead	U	-		-	-	-	626	1960	1960	31.9%	-	-	-	0.2	1.3	0.2
11/2	Circulatory East Right	U	-		-	-	-	726	1933	1933	37.6%	-	-	-	0.3	1.5	0.3
11/3	Circulatory East Right	U	-		-	-	-	724	1933	1933	37.5%	-	-	-	0.3	1.6	7.9
12/1	Circulatory South Ahead Right	U	-		-	-	-	753	1933	1933	39.0%	-	-	-	0.3	1.5	0.3
12/2	Circulatory South Ahead Right	U	-		-	-	-	768	1933	1933	39.7%	-	-	-	0.3	1.5	0.3

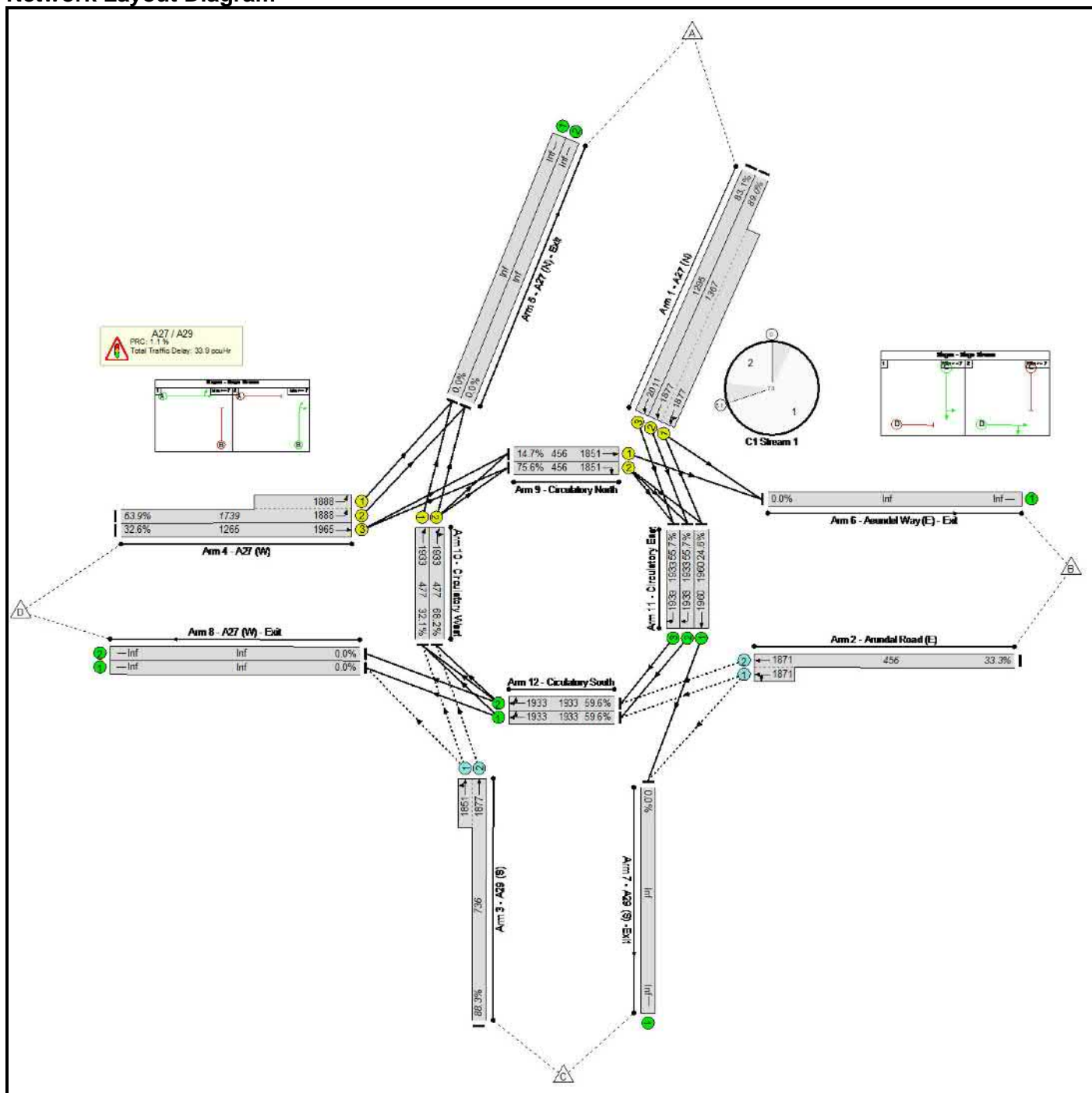
Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%)	1.0	Total Delay for Signalled Lanes (pcuHr)	8.96	Cycle Time (s)	73
C1	Stream: 2	PRC for Signalled Lanes (%)	23.2	Total Delay for Signalled Lanes (pcuHr)	9.86	Cycle Time (s)	73
		PRC Over All Lanes (%)	1.0	Total Delay Over All Lanes(pcuHr)	20.89		

Basic Results Summary

Scenario 3: '2038 DM AM' (FG3: '2038 DM AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	89.0%	1604	0	0	33.9	-	-
A27 / A29	-	-	-		-	-	-	-	-	-	89.0%	1604	0	0	33.9	-	-
1/2+1/1	A27 (N) Left Ahead	U	C		1	46	-	1217	1877:1877	1367	89.0%	-	-	-	7.3	21.6	21.8
1/3	A27 (N) Ahead	U	C		1	46	-	1076	2011	1295	83.1%	-	-	-	5.4	18.0	18.8
2/2+2/1	Arundal Road (E) Left Ahead	O	-		-	-	-	152	1871:1871	456	33.3%	304	0	0	0.6	14.4	1.3
3/2+3/1	A29 (S) Left Ahead	O	-		-	-	-	650	1877:1851	736	88.3%	1300	0	0	7.1	39.1	9.7
4/2+4/1	A27 (W) Left	U	A		1	46	-	1111	1888:1888	1739	63.9%	-	-	-	2.9	9.4	6.4
4/3	A27 (W) Ahead	U	A		1	46	-	412	1965	1265	32.6%	-	-	-	0.9	8.0	3.9
9/1	Circulatory North Ahead	U	D		1	17	-	67	1851	456	14.7%	-	-	-	0.5	28.2	1.3
9/2	Circulatory North Right	U	D		1	17	-	345	1851	456	75.6%	-	-	-	4.3	44.5	8.5
10/1	Circulatory West Ahead	U	B		1	17	-	153	1933	477	32.1%	-	-	-	0.4	9.8	2.0
10/2	Circulatory West Ahead Right	U	B		1	17	-	325	1933	477	68.2%	-	-	-	1.5	16.2	6.0
11/1	Circulatory East Ahead	U	-		-	-	-	482	1960	1960	24.6%	-	-	-	0.2	1.2	0.2
11/2	Circulatory East Right	U	-		-	-	-	1077	1933	1933	55.7%	-	-	-	0.6	2.1	0.6
11/3	Circulatory East Right	U	-		-	-	-	1077	1933	1933	55.7%	-	-	-	0.8	2.5	16.9
12/1	Circulatory South Ahead Right	U	-		-	-	-	1153	1933	1933	59.6%	-	-	-	0.7	2.3	0.7
12/2	Circulatory South Ahead Right	U	-		-	-	-	1153	1933	1933	59.6%	-	-	-	0.7	2.3	0.7

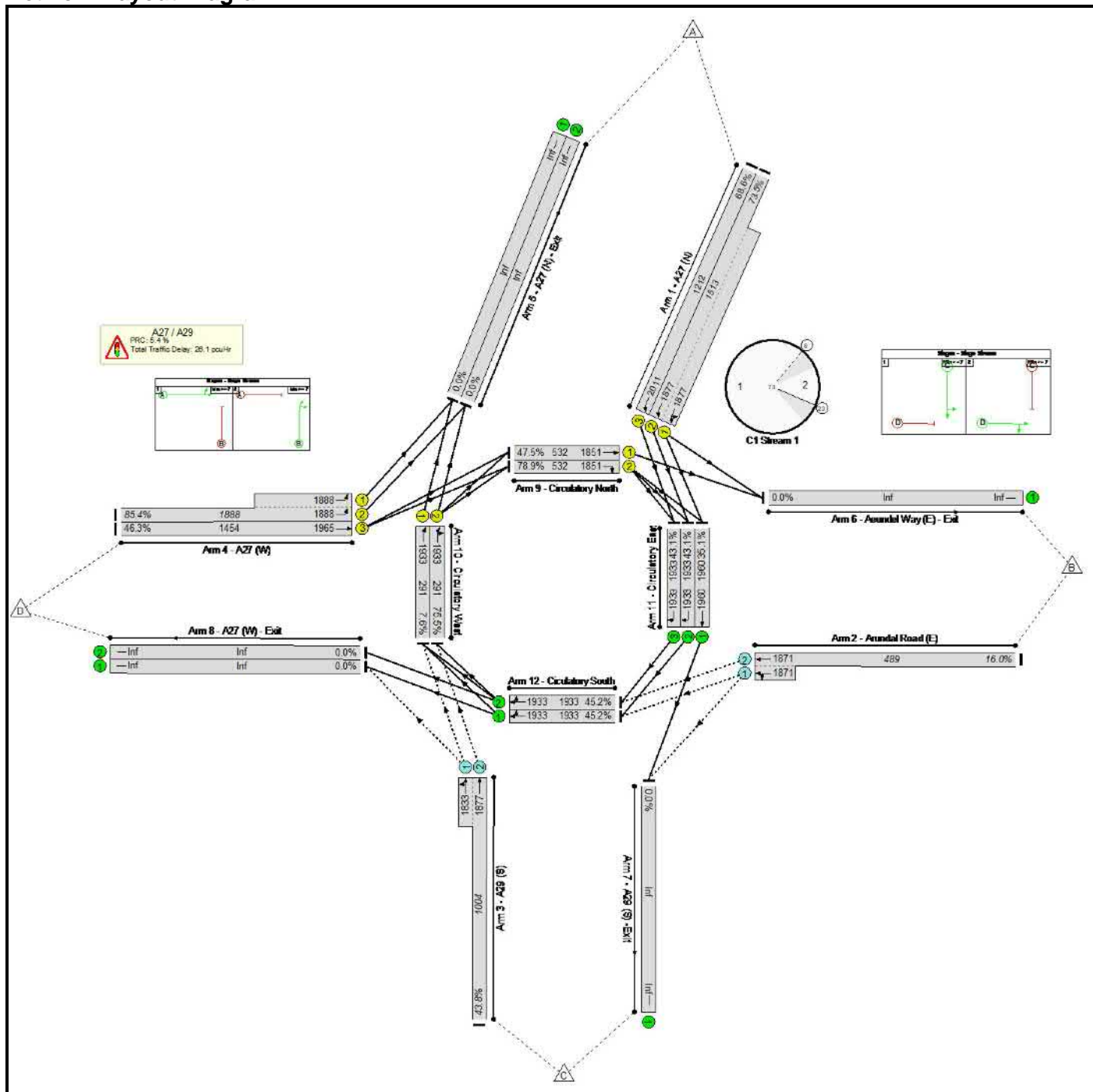
Basic Results Summary

C1	Stream: 1 PRC for Signalled Lanes (%)	32.0	Total Delay for Signalled Lanes (pcuHr)	5.70	Cycle Time (s)	73
C1	Stream: 2 PRC for Signalled Lanes (%)	1.1	Total Delay for Signalled Lanes (pcuHr)	17.47	Cycle Time (s)	73
	PRC Over All Lanes (%)	1.1	Total Delay Over All Lanes(pcuHr)	33.86		

Basic Results Summary

Scenario 4: '2038 DM PM' (FG4: '2038 DM PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	85.4%	1036	0	0	26.1	-	-
A27 / A29	-	-	-		-	-	-	-	-	-	85.4%	1036	0	0	26.1	-	-
1/2+1/1	A27 (N) Left Ahead	U	C		1	43	-	1113	1877:1877	1513	73.5%	-	-	-	4.3	13.9	13.4
1/3	A27 (N) Ahead	U	C		1	43	-	832	2011	1212	68.6%	-	-	-	3.4	14.5	12.4
2/2+2/1	Arundal Road (E) Left Ahead	O	-		-	-	-	78	1871:1871	489	16.0%	156	0	0	0.2	8.4	0.4
3/2+3/1	A29 (S) Left Ahead	O	-		-	-	-	440	1877:1833	1004	43.8%	880	0	0	1.2	9.8	3.1
4/2+4/1	A27 (W) Left	U	A		1	53	-	1612	1888:1888	1888	85.4%	-	-	-	4.8	10.7	10.2
4/3	A27 (W) Ahead	U	A		1	53	-	673	1965	1454	46.3%	-	-	-	1.1	6.1	5.7
9/1	Circulatory North Ahead	U	D		1	20	-	253	1851	532	47.5%	-	-	-	1.8	26.2	3.5
9/2	Circulatory North Right	U	D		1	20	-	420	1851	532	78.9%	-	-	-	4.3	36.4	7.0
10/1	Circulatory West Ahead	U	B		1	10	-	22	1933	291	7.6%	-	-	-	0.2	28.1	0.4
10/2	Circulatory West Ahead Right	U	B		1	10	-	220	1933	291	75.5%	-	-	-	2.9	48.1	5.3
11/1	Circulatory East Ahead	U	-		-	-	-	687	1960	1960	35.1%	-	-	-	0.3	1.4	0.3
11/2	Circulatory East Right	U	-		-	-	-	834	1933	1933	43.1%	-	-	-	0.4	1.6	0.4
11/3	Circulatory East Right	U	-		-	-	-	834	1933	1933	43.1%	-	-	-	0.4	1.9	11.1
12/1	Circulatory South Ahead Right	U	-		-	-	-	873	1933	1933	45.2%	-	-	-	0.4	1.7	0.4
12/2	Circulatory South Ahead Right	U	-		-	-	-	873	1933	1933	45.2%	-	-	-	0.4	1.7	0.4

Basic Results Summary

C1	Stream: 1	PRC for Signalled Lanes (%)	5.4	Total Delay for Signalled Lanes (pcuHr)	9.04	Cycle Time (s)	73
C1	Stream: 2	PRC for Signalled Lanes (%)	14.1	Total Delay for Signalled Lanes (pcuHr)	13.76	Cycle Time (s)	73
		PRC Over All Lanes (%)	5.4	Total Delay Over All Lanes(pcuHr)	26.07		

Do Something Junction Modelling Outputs

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 1_A29 Fontwell Avenue _Northern section.j9

Path: O:\70117477-70060779-WSCC - A29 Phase 1 Planning Application\03 WIP\TP Transport Planning\02 CAD BIM Models\2020.05.01_J1\J1

Report generation date: 01/05/2020 17:25:03

- »2023_Option 1, AM
- »2023_Option 1, PM
- »2023_Option 1+Option 2, AM
- »2023_Option 1+Option 2, PM
- »2038_Option 1, AM
- »2038_Option 1, PM
- »2038_Option 1+Option 2, AM
- »2038_Option 1+Option 2, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2023_Option 1								
A - Fontwell Avenue (N)	0.8	4.37	0.44	A	2.1	7.62	0.68	A
B - A29 Realignment Road	0.4	3.93	0.28	A	0.2	3.70	0.15	A
C - Fontwell Avenue (S)	1.2	6.11	0.56	A	0.5	3.67	0.32	A
2023_Option 1+Option 2								
A - Fontwell Avenue (N)	0.6	3.99	0.39	A	1.4	5.95	0.59	A
B - A29 Realignment Road	0.7	4.20	0.42	A	0.3	3.43	0.24	A
C - Fontwell Avenue (S)	0.6	4.82	0.36	A	0.2	3.12	0.14	A
2038_Option 1								
A - Fontwell Avenue (N)	1.4	5.76	0.58	A	6.9	20.28	0.88	C
B - A29 Realignment Road	0.6	4.78	0.38	A	0.5	5.07	0.34	A
C - Fontwell Avenue (S)	1.6	7.34	0.62	A	0.8	4.90	0.45	A
2038_Option 1+Option 2								
A - Fontwell Avenue (N)	1.2	5.30	0.54	A	4.4	13.40	0.82	B
B - A29 Realignment Road	1.2	5.32	0.54	A	0.6	4.41	0.39	A
C - Fontwell Avenue (S)	0.7	5.92	0.42	A	0.2	3.69	0.20	A

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

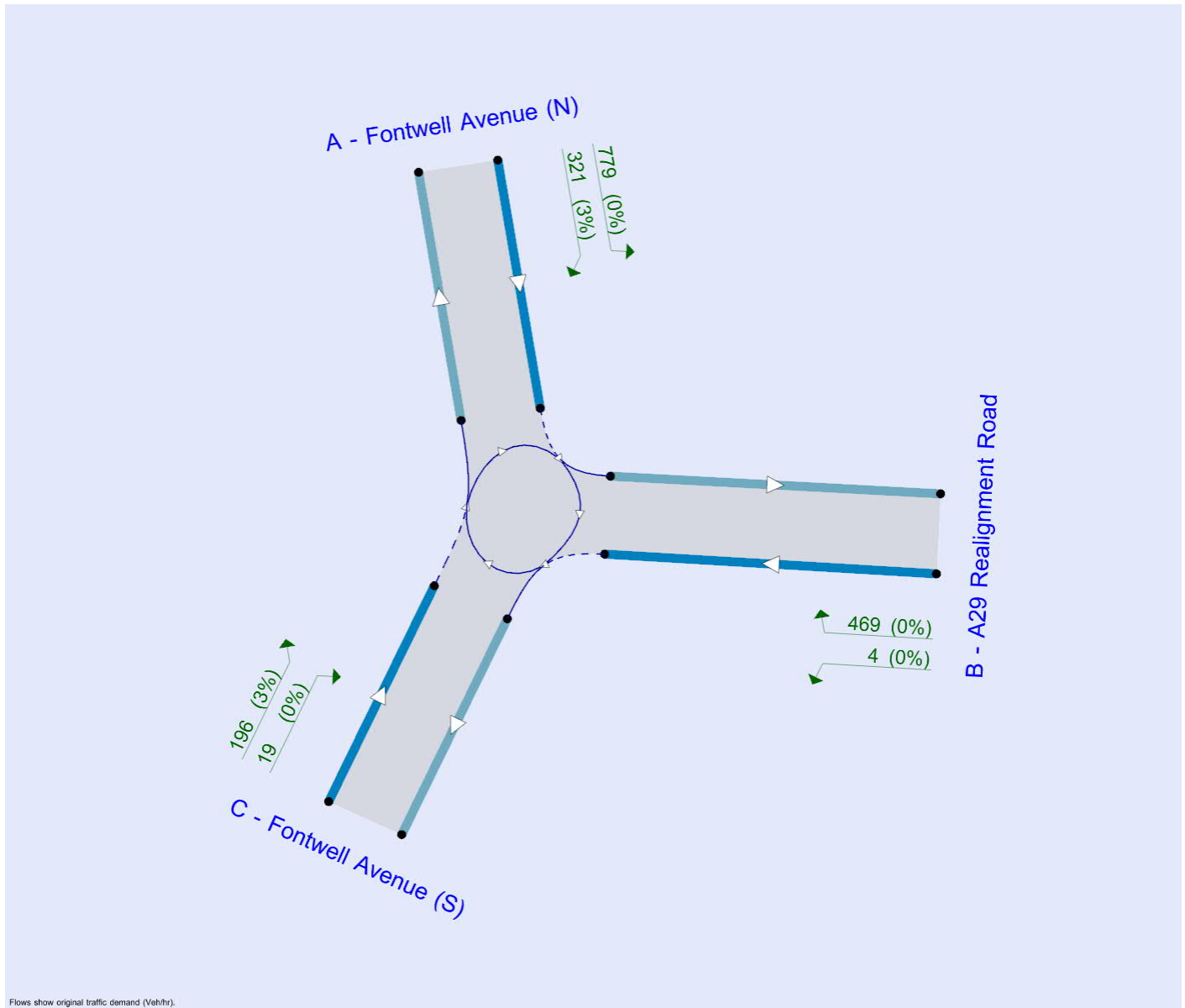
File summary

File Description

Title	JTC 1 - A29 Fontwell Avenue / Northern section of Re-alignment road
Location	50.845207, -0.657517
Site number	1
Date	06/12/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023_Option 1	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023_Option 1	PM	ONE HOUR	16:45	18:15	15	✓
D3	2023_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038_Option 1	AM	ONE HOUR	07:45	09:15	15	✓

D6	2038_Option 1	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓
D8	2038_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2023_Option 1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A29 Fontwell Avenue / Northern section of Re-alignment road	Standard Roundabout		A, B, C	5.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Fontwell Avenue (N)	
B	A29 Realignment Road	
C	Fontwell Avenue (S)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Fontwell Avenue (N)	3.70	7.20	7.2	39.0	40.0	43.0	
B - A29 Realignment Road	3.70	5.30	16.9	40.0	40.0	23.0	
C - Fontwell Avenue (S)	3.80	5.60	13.0	19.9	40.0	23.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Fontwell Avenue (N)	0.596	1503
B - A29 Realignment Road	0.630	1566
C - Fontwell Avenue (S)	0.622	1566

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023_Option 1	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Fontwell Avenue (N)		ONE HOUR	✓	593	100.000
B - A29 Realignment Road		ONE HOUR	✓	325	100.000
C - Fontwell Avenue (S)		ONE HOUR	✓	671	100.000

Origin-Destination Data

Demand (Veh/hr)

	From	To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
	A - Fontwell Avenue (N)	0	181	412
	B - A29 Realignment Road	309	0	16
	C - Fontwell Avenue (S)	669	2	0

Proportions

	From	To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
	A - Fontwell Avenue (N)	0.00	0.31	0.69
	B - A29 Realignment Road	0.95	0.00	0.05
	C - Fontwell Avenue (S)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	From	To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
	A - Fontwell Avenue (N)	0	1	2
	B - A29 Realignment Road	0	0	0
	C - Fontwell Avenue (S)	2	0	0

Average PCU Per Veh

	From	To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
	A - Fontwell Avenue (N)	1.000	1.010	1.020
	B - A29 Realignment Road	1.000	1.000	1.000
	C - Fontwell Avenue (S)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Fontwell Avenue (N)	07:45-08:00	446	454
	08:00-08:15	533	542
	08:15-08:30	653	664
	08:30-08:45	653	664
	08:45-09:00	533	542
	09:00-09:15	446	454
B - A29 Realignment Road	07:45-08:00	245	245
	08:00-08:15	292	292
	08:15-08:30	358	358
	08:30-08:45	358	358
	08:45-09:00	292	292
	09:00-09:15	245	245
C - Fontwell Avenue (S)	07:45-08:00	505	515
	08:00-08:15	603	615
	08:15-08:30	739	754
	08:30-08:45	739	754
	08:45-09:00	603	615
	09:00-09:15	505	515

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Fontwell Avenue (N)	0.44	4.37	0.8	A	544	816
B - A29 Realignment Road	0.28	3.93	0.4	A	298	447
C - Fontwell Avenue (S)	0.56	6.11	1.2	A	616	924

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	446	112	1	1477	0.302	445	733	0.0	0.4	3.481	A
B - A29 Realignment Road	245	61	309	1368	0.179	244	137	0.0	0.2	3.202	A
C - Fontwell Avenue (S)	505	126	232	1394	0.362	503	321	0.0	0.6	4.030	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	533	133	2	1477	0.361	533	878	0.4	0.6	3.810	A
B - A29 Realignment Road	292	73	370	1328	0.220	292	164	0.2	0.3	3.473	A
C - Fontwell Avenue (S)	603	151	278	1366	0.442	602	384	0.6	0.8	4.708	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	653	163	2	1477	0.442	652	1075	0.6	0.8	4.361	A
B - A29 Realignment Road	358	89	453	1275	0.281	357	201	0.3	0.4	3.921	A
C - Fontwell Avenue (S)	739	185	340	1328	0.556	737	471	0.8	1.2	6.070	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	653	163	2	1477	0.442	653	1077	0.8	0.8	4.369	A
B - A29 Realignment Road	358	89	454	1275	0.281	358	201	0.4	0.4	3.926	A
C - Fontwell Avenue (S)	739	185	340	1328	0.556	739	471	1.2	1.2	6.108	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	533	133	2	1477	0.361	534	881	0.8	0.6	3.820	A
B - A29 Realignment Road	292	73	371	1328	0.220	293	165	0.4	0.3	3.478	A
C - Fontwell Avenue (S)	603	151	278	1366	0.442	605	385	1.2	0.8	4.741	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	446	112	2	1477	0.302	447	737	0.6	0.4	3.495	A
B - A29 Realignment Road	245	61	311	1367	0.179	245	138	0.3	0.2	3.212	A

C - Fontwell Avenue (S)	505	126	233	1394	0.36 3	506	323	0.8	0.6	4.06 0	A
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2023_Option 1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A29 Fontwell Avenue / Northern section of Re-alignment road	Standard Roundabout		A, B, C	6.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023_Option 1	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Fontwell Avenue (N)		ONE HOUR	✓	903	100.000
B - A29 Realignment Road		ONE HOUR	✓	159	100.000
C - Fontwell Avenue (S)		ONE HOUR	✓	416	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	312	591
	B - A29 Realignment Road	149	0	10
	C - Fontwell Avenue (S)	389	27	0

Proportions

		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0.00	0.35	0.65
	B - A29 Realignment Road	0.94	0.00	0.06
	C - Fontwell Avenue (S)	0.94	0.06	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	0	2
	B - A29 Realignment Road	0	0	0
	C - Fontwell Avenue (S)	2	0	0

Average PCU Per Veh

		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	1.000	1.000	1.020
	B - A29 Realignment Road	1.000	1.000	1.000
	C - Fontwell Avenue (S)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Fontwell Avenue (N)	16:45-17:00	680	689
	17:00-17:15	812	822
	17:15-17:30	994	1007
	17:30-17:45	994	1007
	17:45-18:00	812	822
	18:00-18:15	680	689
B - A29 Realignment Road	16:45-17:00	120	120
	17:00-17:15	143	143
	17:15-17:30	175	175
	17:30-17:45	175	175
	17:45-18:00	143	143
	18:00-18:15	120	120
C - Fontwell Avenue (S)	16:45-17:00	313	319
	17:00-17:15	374	381
	17:15-17:30	458	467
	17:30-17:45	458	467

	17:45-18:00	374	381
	18:00-18:15	313	319

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Fontwell Avenue (N)	0.68	7.62	2.1	A	829	1243
B - A29 Realignment Road	0.15	3.70	0.2	A	146	219
C - Fontwell Avenue (S)	0.32	3.67	0.5	A	382	573

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	680	170	20	1472	0.462	676	404	0.0	0.9	4.508	A
B - A29 Realignment Road	120	30	443	1282	0.093	119	254	0.0	0.1	3.097	A
C - Fontwell Avenue (S)	313	78	112	1469	0.213	312	450	0.0	0.3	3.108	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	812	203	24	1469	0.552	810	483	0.9	1.2	5.450	A
B - A29 Realignment Road	143	36	530	1225	0.117	143	304	0.1	0.1	3.325	A
C - Fontwell Avenue (S)	374	93	134	1456	0.257	374	539	0.3	0.3	3.327	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	994	249	30	1466	0.678	991	592	1.2	2.1	7.520	A
B - A29 Realignment Road	175	44	649	1149	0.152	175	372	0.1	0.2	3.693	A
C - Fontwell Avenue (S)	458	115	164	1437	0.319	458	660	0.3	0.5	3.671	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	994	249	30	1466	0.678	994	592	2.1	2.1	7.621	A
B - A29 Realignment Road	175	44	651	1148	0.152	175	373	0.2	0.2	3.699	A
C - Fontwell Avenue (S)	458	115	164	1437	0.319	458	662	0.5	0.5	3.675	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	812	203	24	1469	0.552	815	484	2.1	1.3	5.531	A
B - A29 Realignment Road	143	36	533	1223	0.117	143	306	0.2	0.1	3.332	A
C - Fontwell Avenue (S)	374	93	134	1456	0.257	374	542	0.5	0.3	3.333	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	680	170	20	1472	0.462	681	405	1.3	0.9	4.565	A
B - A29 Realignment Road	120	30	446	1280	0.094	120	256	0.1	0.1	3.106	A
C - Fontwell Avenue (S)	313	78	112	1469	0.213	313	453	0.3	0.3	3.115	A

2023_Option 1+Option 2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A29 Fontwell Avenue / Northern section of Re-alignment road	Standard Roundabout		A, B, C	4.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Fontwell Avenue (N)		ONE HOUR	✓	528	100.000
B - A29 Realignment Road		ONE HOUR	✓	552	100.000
C - Fontwell Avenue (S)		ONE HOUR	✓	378	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	404	124
	B - A29 Realignment Road	550	0	2
	C - Fontwell Avenue (S)	377	1	0

Proportions

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0.00	0.77	0.23
	B - A29 Realignment Road	1.00	0.00	0.00
	C - Fontwell Avenue (S)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	1	2
	B - A29 Realignment Road	1	0	0
	C - Fontwell Avenue (S)	2	0	0

Average PCU Per Veh

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	1.000	1.010	1.020
	B - A29 Realignment Road	1.010	1.000	1.000
	C - Fontwell Avenue (S)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Fontwell Avenue (N)	07:45-08:00	398	402
	08:00-08:15	475	481
	08:15-08:30	581	589
	08:30-08:45	581	589
	08:45-09:00	475	481
	09:00-09:15	398	402
B - A29 Realignment Road	07:45-08:00	416	420
	08:00-08:15	496	501
	08:15-08:30	608	614
	08:30-08:45	608	614
	08:45-09:00	496	501
	09:00-09:15	416	420
C - Fontwell Avenue (S)	07:45-08:00	285	290
	08:00-08:15	340	347
	08:15-08:30	416	424
	08:30-08:45	416	424
	08:45-09:00	340	347
	09:00-09:15	285	290

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Fontwell Avenue (N)	0.39	3.99	0.6	A	485	727
B - A29 Realignment Road	0.42	4.20	0.7	A	507	760
C - Fontwell Avenue (S)	0.36	4.82	0.6	A	347	520

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	398	99	0.75	1484	0.268	396	695	0.0	0.4	3.304	A
B - A29 Realignment Road	416	104	93	1491	0.279	414	304	0.0	0.4	3.337	A
C - Fontwell Avenue (S)	285	71	413	1281	0.222	283	95	0.0	0.3	3.605	A

08:00 - 08:15

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit	Start queue	End queue	Delay (s)	Unsignalised level of service
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	(Veh/hr)	Arrivals (Veh)					side (Veh/hr)	e (Veh)	e (Veh)		
A - Fontwell Avenue (N)	475	119	0.90	1484	0.320	474	833	0.4	0.5	3.562	A
B - A29 Realignment Road	496	124	111	1480	0.335	496	364	0.4	0.5	3.656	A
C - Fontwell Avenue (S)	340	85	494	1231	0.276	339	113	0.3	0.4	4.035	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	581	145	1	1484	0.392	581	1019	0.5	0.6	3.983	A
B - A29 Realignment Road	608	152	136	1464	0.415	607	445	0.5	0.7	4.198	A
C - Fontwell Avenue (S)	416	104	605	1163	0.358	415	139	0.4	0.6	4.813	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	581	145	1	1484	0.392	581	1021	0.6	0.6	3.987	A
B - A29 Realignment Road	608	152	137	1464	0.415	608	446	0.7	0.7	4.205	A
C - Fontwell Avenue (S)	416	104	606	1162	0.358	416	139	0.6	0.6	4.823	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	475	119	0.90	1484	0.320	475	835	0.6	0.5	3.572	A
B - A29 Realignment Road	496	124	112	1480	0.335	497	365	0.7	0.5	3.668	A
C - Fontwell Avenue (S)	340	85	495	1230	0.276	340	113	0.6	0.4	4.049	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	398	99	0.75	1484	0.268	398	699	0.5	0.4	3.314	A
B - A29 Realignment Road	416	104	93	1491	0.279	416	305	0.5	0.4	3.351	A
C - Fontwell Avenue (S)	285	71	415	1280	0.222	285	95	0.4	0.3	3.617	A

2023_Option 1+Option 2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A29 Fontwell Avenue / Northern section of Re-alignment road	Standard Roundabout		A, B, C	4.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2023_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Fontwell Avenue (N)		ONE HOUR	✓	792	100.000
B - A29 Realignment Road		ONE HOUR	✓	306	100.000
C - Fontwell Avenue (S)		ONE HOUR	✓	174	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	559	233
	B - A29 Realignment Road	304	0	2
	C - Fontwell Avenue (S)	164	10	0

Proportions

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0.00	0.71	0.29
	B - A29 Realignment Road	0.99	0.00	0.01
	C - Fontwell Avenue (S)	0.94	0.06	0.00

Vehicle Mix

Heavy Vehicle Percentages

From		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	1	2
	B - A29 Realignm ent Road	1	0	0
	C - Fontwell Avenue (S)	1	0	0

Average PCU Per Veh

From		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	1.000	1.010	1.020
	B - A29 Realignm ent Road	1.010	1.000	1.000
	C - Fontwell Avenue (S)	1.010	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Fontwell Avenue (N)	16:45-17:00	596	604
	17:00-17:15	712	721
	17:15-17:30	872	883
	17:30-17:45	872	883
	17:45-18:00	712	721
	18:00-18:15	596	604
B - A29 Realignm ent Road	16:45-17:00	230	233
	17:00-17:15	275	278
	17:15-17:30	337	340
	17:30-17:45	337	340
	17:45-18:00	275	278
	18:00-18:15	230	233
C - Fontwell Avenue (S)	16:45-17:00	131	132
	17:00-17:15	156	158
	17:15-17:30	192	193
	17:30-17:45	192	193
	17:45-18:00	156	158
	18:00-18:15	131	132

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Fontwell Avenue (N)	0.59	5.95	1.4	A	727	1090
B - A29 Realignm ent Road	0.24	3.43	0.3	A	281	421
C - Fontwell Avenue (S)	0.14	3.12	0.2	A	160	239

	(Veh/hr)	Arrivals (Veh)					side (Veh/hr)	e (Veh)	e (Veh)		
A - Fontwell Avenue (N)	712	178	9	1479	0.482	714	421	1.4	0.9	4.721	A
B - A29 Realignment Road	275	69	210	1417	0.194	275	513	0.3	0.2	3.153	A
C - Fontwell Avenue (S)	156	39	274	1381	0.113	157	212	0.2	0.1	2.941	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	596	149	8	1479	0.403	597	353	0.9	0.7	4.085	A
B - A29 Realignment Road	230	58	176	1439	0.160	231	429	0.2	0.2	2.981	A
C - Fontwell Avenue (S)	131	33	229	1409	0.093	131	177	0.1	0.1	2.816	A

2038_Option 1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A29 Fontwell Avenue / Northern section of Re-alignment road	Standard Roundabout		A, B, C	6.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2038_Option 1	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
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A - Fontwell Avenue (N)		ONE HOUR	✓	773	100.000
B - A29 Realignment Road		ONE HOUR	✓	418	100.000
C - Fontwell Avenue (S)		ONE HOUR	✓	715	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	274	499
	B - A29 Realignment Road	384	0	34
	C - Fontwell Avenue (S)	711	4	0

Proportions

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0.00	0.35	0.65
	B - A29 Realignment Road	0.92	0.00	0.08
	C - Fontwell Avenue (S)	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	1	2
	B - A29 Realignment Road	0	0	0
	C - Fontwell Avenue (S)	2	0	0

Average PCU Per Veh

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	1.000	1.010	1.020
	B - A29 Realignment Road	1.000	1.000	1.000
	C - Fontwell Avenue (S)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Fontwell Avenue (N)	07:45-08:00	582	592
	08:00-08:15	695	706
	08:15-08:30	851	865
	08:30-08:45	851	865
	08:45-09:00	695	706
	09:00-09:15	582	592
B - A29 Realignment Road	07:45-08:00	315	315
	08:00-08:15	376	376
	08:15-08:30	460	460
	08:30-08:45	460	460

	08:45-09:00	376	376
	09:00-09:15	315	315
C - Fontwell Avenue (S)	07:45-08:00	538	549
	08:00-08:15	643	656
	08:15-08:30	787	803
	08:30-08:45	787	803
	08:45-09:00	643	656
	09:00-09:15	538	549

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Fontwell Avenue (N)	0.58	5.76	1.4	A	709	1064
B - A29 Realignment Road	0.38	4.78	0.6	A	384	575
C - Fontwell Avenue (S)	0.62	7.34	1.6	A	656	984

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	582	145	3	1477	0.394	579	821	0.0	0.6	4.000	A
B - A29 Realignment Road	315	79	374	1326	0.237	313	208	0.0	0.3	3.551	A
C - Fontwell Avenue (S)	538	135	288	1360	0.396	536	400	0.0	0.6	4.367	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	695	174	4	1477	0.471	694	983	0.6	0.9	4.594	A
B - A29 Realignment Road	376	94	448	1278	0.294	375	250	0.3	0.4	3.985	A
C - Fontwell Avenue (S)	643	161	345	1325	0.485	642	479	0.6	0.9	5.257	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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	(Veh/hr)										
A - Fontwell Avenue (N)	851	213	4	1476	0.577	849	1202	0.9	1.3	5.725	A
B - A29 Realignment Road	460	115	548	1214	0.379	459	305	0.4	0.6	4.767	A
C - Fontwell Avenue (S)	787	197	422	1278	0.616	785	586	0.9	1.6	7.257	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	851	213	4	1476	0.577	851	1206	1.3	1.4	5.759	A
B - A29 Realignment Road	460	115	549	1213	0.379	460	306	0.6	0.6	4.781	A
C - Fontwell Avenue (S)	787	197	423	1278	0.616	787	587	1.6	1.6	7.335	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	695	174	4	1477	0.471	697	988	1.4	0.9	4.628	A
B - A29 Realignment Road	376	94	450	1277	0.294	377	251	0.6	0.4	4.002	A
C - Fontwell Avenue (S)	643	161	346	1325	0.485	645	480	1.6	1.0	5.320	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	582	145	3	1477	0.394	583	826	0.9	0.7	4.032	A
B - A29 Realignment Road	315	79	376	1324	0.238	315	210	0.4	0.3	3.567	A
C - Fontwell Avenue (S)	538	135	289	1359	0.396	539	402	1.0	0.7	4.399	A

2038_Option 1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A29 Fontwell Avenue / Northern section of Re-alignment road	Standard Roundabout		A, B, C	13.73	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2038_Option 1	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Fontwell Avenue (N)		ONE HOUR	✓	1166	100.000
B - A29 Realignment Road		ONE HOUR	✓	338	100.000
C - Fontwell Avenue (S)		ONE HOUR	✓	535	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
A - Fontwell Avenue (N)	0	480	686
B - A29 Realignment Road	319	0	19
C - Fontwell Avenue (S)	488	47	0

Proportions

From	To		
	A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
A - Fontwell Avenue (N)	0.00	0.41	0.59
B - A29 Realignment Road	0.94	0.00	0.06
C - Fontwell Avenue (S)	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)	
A - Fontwell Avenue (N)	0	0	2	
B - A29 Realignment Road	0	0	0	
C - Fontwell Avenue (S)	2	0	0	

Average PCU Per Veh

From	To			
	A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)	
A - Fontwell Avenue (N)	1.000	1.000	1.020	
B - A29 Realignment Road	1.000	1.000	1.000	
C - Fontwell Avenue (S)	1.020	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Fontwell Avenue (N)	16:45-17:00	878	888
	17:00-17:15	1048	1061
	17:15-17:30	1284	1299
	17:30-17:45	1284	1299
	17:45-18:00	1048	1061
	18:00-18:15	878	888
B - A29 Realignment Road	16:45-17:00	254	254
	17:00-17:15	304	304
	17:15-17:30	372	372
	17:30-17:45	372	372
	17:45-18:00	304	304
	18:00-18:15	254	254
C - Fontwell Avenue (S)	16:45-17:00	403	410
	17:00-17:15	481	490
	17:15-17:30	589	600
	17:30-17:45	589	600
	17:45-18:00	481	490
	18:00-18:15	403	410

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Fontwell Avenue (N)	0.88	20.28	6.9	C	1070	1605
B - A29 Realignment Road	0.34	5.07	0.5	A	310	465
C - Fontwell Avenue (S)	0.45	4.90	0.8	A	491	736

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	878	219	35	1465	0.599	872	605	0.0	1.5	6.015	A
B - A29 Realignment Road	254	64	513	1236	0.206	253	394	0.0	0.3	3.659	A
C - Fontwell Avenue (S)	403	101	239	1392	0.289	401	527	0.0	0.4	3.626	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	1048	262	42	1461	0.718	1044	725	1.5	2.5	8.562	A
B - A29 Realignment Road	304	76	614	1171	0.259	303	472	0.3	0.3	4.146	A
C - Fontwell Avenue (S)	481	120	286	1363	0.353	480	631	0.4	0.5	4.075	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	1284	321	52	1455	0.882	1268	887	2.5	6.4	17.872	C
B - A29 Realignment Road	372	93	746	1087	0.342	371	574	0.3	0.5	5.029	A
C - Fontwell Avenue (S)	589	147	351	1324	0.445	588	767	0.5	0.8	4.885	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	1284	321	52	1455	0.882	1282	888	6.4	6.9	20.283	C
B - A29 Realignment Road	372	93	754	1081	0.344	372	579	0.5	0.5	5.074	A
C - Fontwell Avenue (S)	589	147	351	1324	0.445	589	775	0.8	0.8	4.900	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	1048	262	42	1461	0.718	1065	727	6.9	2.6	9.469	A

B - A29 Realignment Road	304	76	627	1163	0.261	305	481	0.5	0.4	4.196	A
C - Fontwell Avenue (S)	481	120	287	1363	0.353	482	644	0.8	0.5	4.092	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	878	219	35	1465	0.599	882	608	2.6	1.5	6.228	A
B - A29 Realignment Road	254	64	519	1233	0.206	255	399	0.4	0.3	3.682	A
C - Fontwell Avenue (S)	403	101	241	1391	0.290	403	533	0.5	0.4	3.648	A

2038_Option 1+Option 2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A29 Fontwell Avenue / Northern section of Re-alignment road	Standard Roundabout		A, B, C	5.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2038_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Fontwell Avenue (N)		ONE HOUR	✓	732	100.000
B - A29 Realignment Road		ONE HOUR	✓	715	100.000
C - Fontwell Avenue (S)		ONE HOUR	✓	392	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	588	144
	B - A29 Realignment Road	708	0	7
	C - Fontwell Avenue (S)	391	1	0

Proportions

		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0.00	0.80	0.20
	B - A29 Realignment Road	0.99	0.00	0.01
	C - Fontwell Avenue (S)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	1	2
	B - A29 Realignment Road	0	0	0
	C - Fontwell Avenue (S)	4	0	0

Average PCU Per Veh

		To		
		A - Fontwell Avenue (N)	B - A29 Realignm ent Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	1.000	1.010	1.020
	B - A29 Realignment Road	1.000	1.000	1.000
	C - Fontwell Avenue (S)	1.040	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Fontwell Avenue (N)	07:45-08:00	551	558
	08:00-08:15	658	666
	08:15-08:30	806	816
	08:30-08:45	806	816
	08:45-09:00	658	666
	09:00-09:15	551	558
B - A29 Realignment Road	07:45-08:00	538	538
	08:00-08:15	643	643
	08:15-08:30	787	787
	08:30-08:45	787	787
	08:45-09:00	643	643
	09:00-09:15	538	538
C - Fontwell Avenue (S)	07:45-08:00	295	307
	08:00-08:15	352	366
	08:15-08:30	432	449

	08:30-08:45	432	449
	08:45-09:00	352	366
	09:00-09:15	295	307

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Fontwell Avenue (N)	0.54	5.30	1.2	A	672	1008
B - A29 Realignment Road	0.54	5.32	1.2	A	656	984
C - Fontwell Avenue (S)	0.42	5.92	0.7	A	360	540

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	551	138	0.75	1485	0.371	549	824	0.0	0.6	3.837	A
B - A29 Realignment Road	538	135	108	1497	0.360	536	442	0.0	0.6	3.740	A
C - Fontwell Avenue (S)	295	74	531	1188	0.248	294	113	0.0	0.3	4.018	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	658	165	0.90	1485	0.443	657	987	0.6	0.8	4.345	A
B - A29 Realignment Road	643	161	129	1483	0.433	642	529	0.6	0.8	4.277	A
C - Fontwell Avenue (S)	352	88	636	1126	0.313	352	136	0.3	0.5	4.649	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	806	201	1	1485	0.543	804	1207	0.8	1.2	5.281	A
B - A29 Realignment Road	787	197	158	1464	0.538	786	647	0.8	1.1	5.292	A

C - Fontwell Avenue (S)	432	108	778	1041	0.415	431	166	0.5	0.7	5.893	A
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08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	806	201	1	1485	0.543	806	1210	1.2	1.2	5.303	A
B - A29 Realignment Road	787	197	159	1464	0.538	787	648	1.1	1.2	5.317	A
C - Fontwell Avenue (S)	432	108	779	1040	0.415	432	166	0.7	0.7	5.920	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	658	165	0.90	1485	0.443	660	990	1.2	0.8	4.372	A
B - A29 Realignment Road	643	161	130	1483	0.434	644	531	1.2	0.8	4.301	A
C - Fontwell Avenue (S)	352	88	638	1124	0.313	353	136	0.7	0.5	4.677	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	551	138	0.75	1485	0.371	552	829	0.8	0.6	3.863	A
B - A29 Realignment Road	538	135	109	1496	0.360	539	444	0.8	0.6	3.763	A
C - Fontwell Avenue (S)	295	74	534	1187	0.249	296	114	0.5	0.3	4.043	A

2038_Option 1+Option 2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A29 Fontwell Avenue / Northern section of Re-alignment road	Standard Roundabout		A, B, C	9.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2038_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Fontwell Avenue (N)		ONE HOUR	✓	1100	100.000
B - A29 Realignment Road		ONE HOUR	✓	473	100.000
C - Fontwell Avenue (S)		ONE HOUR	✓	215	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	779	321
	B - A29 Realignment Road	469	0	4
	C - Fontwell Avenue (S)	196	19	0

Proportions

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0.00	0.71	0.29
	B - A29 Realignment Road	0.99	0.00	0.01
	C - Fontwell Avenue (S)	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	0	0	3
	B - A29 Realignment Road	0	0	0
	C - Fontwell Avenue (S)	3	0	0

Average PCU Per Veh

		To		
		A - Fontwell Avenue (N)	B - A29 Realignment Road	C - Fontwell Avenue (S)
From	A - Fontwell Avenue (N)	1.000	1.000	1.030
	B - A29 Realignment Road	1.000	1.000	1.000
	C - Fontwell Avenue (S)	1.030	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Fontwell Avenue (N)	16:45-17:00	828	835
	17:00-17:15	989	998
	17:15-17:30	1211	1222
	17:30-17:45	1211	1222
	17:45-18:00	989	998
	18:00-18:15	828	835
B - A29 Realignment Road	16:45-17:00	356	356
	17:00-17:15	425	425
	17:15-17:30	521	521
	17:30-17:45	521	521
	17:45-18:00	425	425
	18:00-18:15	356	356
C - Fontwell Avenue (S)	16:45-17:00	162	166
	17:00-17:15	193	199
	17:15-17:30	237	243
	17:30-17:45	237	243
	17:45-18:00	193	199
	18:00-18:15	162	166

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Fontwell Avenue (N)	0.82	13.40	4.4	B	1009	1514
B - A29 Realignment Road	0.39	4.41	0.6	A	434	651
C - Fontwell Avenue (S)	0.20	3.69	0.2	A	197	296

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Fontwell Avenue (N)	828	207	14	1482	0.559	823	499	0.0	1.3	5.427	A
B - A29 Realignment Road	356	89	240	1410	0.253	355	597	0.0	0.3	3.406	A
C - Fontwell Avenue (S)	162	40	352	1311	0.123	161	243	0.0	0.1	3.128	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalise d level of service
A - Fontwell Avenue (N)	989	247	17	1480	0.668	986	597	1.3	2.0	7.244	A
B - A29 Realignment Road	425	106	288	1379	0.308	425	715	0.3	0.4	3.769	A
C - Fontwell Avenue (S)	193	48	421	1269	0.152	193	291	0.1	0.2	3.344	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalise d level of service
A - Fontwell Avenue (N)	1211	303	21	1478	0.820	1202	731	2.0	4.2	12.659	B
B - A29 Realignment Road	521	130	351	1338	0.389	520	872	0.4	0.6	4.395	A
C - Fontwell Avenue (S)	237	59	516	1212	0.195	236	355	0.2	0.2	3.689	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalise d level of service
A - Fontwell Avenue (N)	1211	303	21	1478	0.820	1211	732	4.2	4.4	13.399	B
B - A29 Realignment Road	521	130	353	1337	0.390	521	878	0.6	0.6	4.410	A
C - Fontwell Avenue (S)	237	59	516	1212	0.195	237	358	0.2	0.2	3.691	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalise d level of service
A - Fontwell Avenue (N)	989	247	17	1480	0.668	998	599	4.4	2.1	7.611	A
B - A29 Realignment Road	425	106	291	1377	0.309	426	724	0.6	0.4	3.786	A
C - Fontwell Avenue (S)	193	48	422	1269	0.152	194	295	0.2	0.2	3.348	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalise d level of service
A - Fontwell Avenue (N)	828	207	14	1482	0.559	831	501	2.1	1.3	5.563	A
B - A29 Realignment Road	356	89	243	1409	0.253	357	603	0.4	0.3	3.422	A

C - Fontwell Avenue (S)	162	40	354	1310	$\frac{0.12}{4}$	162	246	0.2	0.1	$\frac{3.13}{4}$	A
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Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 2_B2233 Barnham Road Northern section.j9

Path: O:\50610325 - Chancery Lane Projects\Development Planning Projects\00000000 A29 Junctions Modelling\F Record of Issue\2020.04.03 J1_J2 2023\J2

Report generation date: 03/04/2020 12:06:03

- »2023_Option 1, AM
- »2023_Option 1, PM
- »2023_Option 1+Option 2, AM
- »2023_Option 1+Option 2, PM
- »2038_Option 1, AM
- »2038_Option 1, PM
- »2038_Option 1+Option 2, AM
- »2038_Option 1+Option 2, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2023_Option 1								
A - A29 Realignment Road	0.2	3.33	0.13	A	0.4	4.11	0.27	A
B - Barnham Road (E)	0.8	4.59	0.45	A	0.7	4.30	0.40	A
C - Southern approach	0.1	3.14	0.09	A	0.0	2.85	0.04	A
D - Barnham Road (W)	0.3	3.77	0.25	A	0.5	3.84	0.33	A
2023_Option 1+Option 2								
A - A29 Realignment Road	0.5	4.58	0.35	A	1.2	7.21	0.54	A
B - Barnham Road (E)	1.5	7.05	0.60	A	1.4	7.33	0.59	A
C - Southern approach	1.0	5.56	0.50	A	0.7	4.34	0.41	A
D - Barnham Road (W)	0.2	4.34	0.16	A	0.5	4.66	0.32	A
2038_Option 1								
A - A29 Realignment Road	0.2	3.89	0.20	A	0.7	5.31	0.41	A
B - Barnham Road (E)	0.5	4.05	0.35	A	1.0	5.82	0.49	A
C - Southern approach	0.5	3.75	0.31	A	0.2	3.30	0.17	A
D - Barnham Road (W)	0.4	3.86	0.28	A	0.7	4.70	0.40	A
2038_Option 1+Option 2								
A - A29 Realignment Road	1.0	6.08	0.51	A	3.1	14.09	0.76	B
B - Barnham Road (E)	1.5	7.90	0.61	A	3.1	14.80	0.76	B
C - Southern approach	2.0	7.82	0.67	A	1.2	5.69	0.55	A
D - Barnham Road (W)	0.2	4.64	0.18	A	0.8	5.86	0.39	A

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

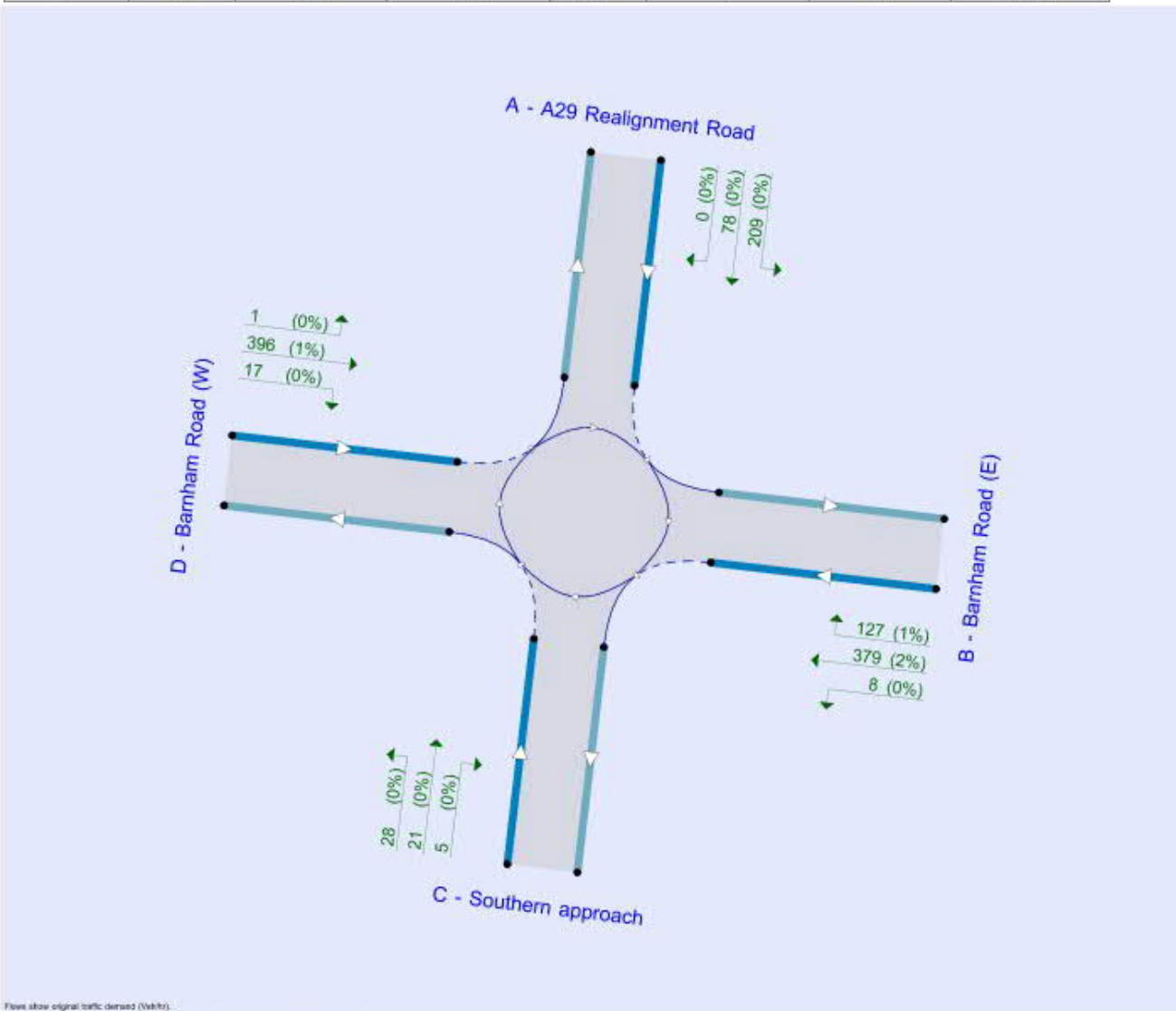
File summary

File Description

Title	JTC 2 - B2233 Barnham Road / Northern section of Re-alignment road
Location	50.837727, -0.649182
Site number	2
Date	06/12/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023_Option 1	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023_Option 1	PM	ONE HOUR	16:45	18:15	15	✓
D3	2023_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038_Option 1	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038_Option 1	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓
D8	2038_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2023_Option 1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	B2233 Barnham Road / Northern section of Re-alignment road	Standard Roundabout		A, B, C, D	4.08	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A29 Realignment Road	
B	Barnham Road (E)	
C	Southern approach	
D	Barnham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	Γ - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A29 Realignment Road	3.60	5.60	10.6	20.7	44.5	32.0	
B - Barnham Road (E)	3.70	6.40	7.4	28.6	44.5	36.0	
C - Southern approach	3.70	7.10	10.5	40.0	44.5	27.0	
D - Barnham Road (W)	3.50	6.20	8.7	25.1	44.5	26.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A29 Realignment Road	0.581	1461
B - Barnham Road (E)	0.588	1489
C - Southern approach	0.637	1683
D - Barnham Road (W)	0.599	1507

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023_Option 1	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Realignment Road		ONE HOUR	✓	153	100.000
B - Barnham Road (E)		ONE HOUR	✓	694	100.000
C - Southern approach		ONE HOUR	✓	109	100.000
D - Barnham Road (W)		ONE HOUR	✓	293	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
From	A - A29 Realignment Road	0	132	21	0
	B - Barnham Road (E)	176	0	14	404
	C - Southern approach	57	2	0	50
	D - Barnham Road (W)	0	288	7	0

Proportions

From		To	
		A - A29 Realignment Road	B - Barnham Road (E)
From	A - A29 Realignment Road	0.00	0.86
	B - Barnham Road (E)	0.30	0.00
	C - Southern approach	0.52	0.02
	D - Barnham Road (W)	0.00	0.98

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
From	A - A29 Realignment Road	0	1	0	0
	B - Barnham Road (E)	1	0	0	3
	C - Southern approach	0	0	0	0
	D - Barnham Road (W)	0	6	0	0

Average PCU Per Veh

From		To	
		A - A29 Realignment Road	B - Barnham Road (E)
From	A - A29 Realignment Road	1.000	1.010
	B - Barnham Road (E)	1.010	1.000
	C - Southern approach	1.000	1.000
	D - Barnham Road (W)	1.000	1.060

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Realignment Road	07:45-08:00	115	116
	08:00-08:15	138	139
	08:15-08:30	168	170
	08:30-08:45	168	170
	08:45-09:00	138	139
	09:00-09:15	115	116
B - Barnham Road (E)	07:45-08:00	447	458
	08:00-08:15	534	546
	08:15-08:30	654	669
	08:30-08:45	654	669
	08:45-09:00	534	546
	09:00-09:15	447	458
C - Southern approach	07:45-08:00	82	82
	08:00-08:15	98	98
	08:15-08:30	120	120
	08:30-08:45	120	120
	08:45-09:00	98	98
	09:00-09:15	82	82
D - Barnham Road (W)	07:45-08:00	221	234
	08:00-08:15	263	279
	08:15-08:30	323	341
	08:30-08:45	323	341
	08:45-09:00	263	279
	09:00-09:15	221	234

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Realignment Road	0.13	3.33	0.2	A	140	211
B - Barnham Road (E)	0.45	4.69	0.8	A	545	818
C - Southern approach	0.09	3.14	0.1	A	100	150
D - Barnham Road (W)	0.25	3.77	0.3	A	269	403

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	115	29	221	1313	0.088	115	175	0.0	0.1	3.004	A
B - Barnham Road (E)	447	112	21	1443	0.310	445	315	0.0	0.4	3.601	A
C - Southern approach	82	21	435	1400	0.059	82	32	0.0	0.1	2.731	A
D - Barnham Road (W)	221	55	176	1323	0.167	220	340	0.0	0.2	3.261	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	138	34	265	1287	0.107	137	209	0.1	0.1	3.132	A
B - Barnham Road (E)	534	133	25	1441	0.371	533	377	0.4	0.6	3.964	A
C - Southern approach	98	24	521	1344	0.073	98	38	0.1	0.1	2.889	A
D - Barnham Road (W)	263	66	211	1303	0.202	263	408	0.2	0.3	3.460	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	168	42	324	1250	0.135	168	256	0.1	0.2	3.326	A
B - Barnham Road (E)	654	164	31	1438	0.455	653	462	0.6	0.8	4.582	A
C - Southern approach	120	30	638	1288	0.095	120	46	0.1	0.1	3.136	A
D - Barnham Road (W)	323	81	258	1276	0.253	322	499	0.3	0.3	3.773	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	168	42	325	1250	0.135	168	257	0.2	0.2	3.327	A
B - Barnham Road (E)	654	164	31	1438	0.455	654	462	0.8	0.8	4.593	A
C - Southern approach	120	30	639	1267	0.095	120	46	0.1	0.1	3.137	A
D - Barnham Road (W)	323	81	259	1276	0.253	323	500	0.3	0.3	3.774	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	138	34	266	1286	0.107	138	210	0.2	0.1	3.133	A
B - Barnham Road (E)	534	133	25	1441	0.371	535	378	0.8	0.6	3.977	A
C - Southern approach	98	24	522	1343	0.073	98	38	0.1	0.1	2.894	A
D - Barnham Road (W)	263	66	212	1303	0.202	264	409	0.3	0.3	3.464	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	115	29	222	1313	0.088	115	176	0.1	0.1	3.006	A
B - Barnham Road (E)	447	112	21	1443	0.310	448	316	0.6	0.5	3.617	A
C - Southern approach	82	21	437	1398	0.059	82	32	0.1	0.1	2.736	A
D - Barnham Road (W)	221	55	177	1323	0.167	221	342	0.3	0.2	3.267	A

2023_Option 1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	B2233 Barnham Road / Northern section of Re-alignment road	Standard Roundabout		A, B, C, D	4.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023_Option 1	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Realignment Road		ONE HOUR	✓	287	100.000
B - Barnham Road (E)		ONE HOUR	✓	514	100.000
C - Southern approach		ONE HOUR	✓	54	100.000
D - Barnham Road (W)		ONE HOUR	✓	414	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	209	78	0
	B - Barnham Road (E)	127	0	8	379
	C - Southern approach	21	5	0	28
	D - Barnham Road (W)	1	396	17	0

Proportions

From		To		S at
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	0.00	0.73	
	B - Barnham Road (E)	0.25	0.00	
	C - Southern approach	0.39	0.09	
	D - Barnham Road (W)	0.00	0.96	

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	0	0	0
	B - Barnham Road (E)	1	0	0	2
	C - Southern approach	0	0	0	0
	D - Barnham Road (W)	0	1	0	0

Average PCU Per Veh

From		To		S ap
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	1.000	1.000	
	B - Barnham Road (E)	1.010	1.000	
	C - Southern approach	1.000	1.000	
	D - Barnham Road (W)	1.000	1.010	

Detailed Demand Data
Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Realignment Road	16:45-17:00	216	216
	17:00-17:15	258	258
	17:15-17:30	316	316
	17:30-17:45	316	316
	17:45-18:00	258	258
	18:00-18:15	216	216
B - Barnham Road (E)	16:45-17:00	387	394
	17:00-17:15	462	470
	17:15-17:30	566	576
	17:30-17:45	566	576
	17:45-18:00	462	470
	18:00-18:15	387	394
C - Southern approach	16:45-17:00	41	41
	17:00-17:15	49	49
	17:15-17:30	59	59
	17:30-17:45	59	59
	17:45-18:00	49	49
	18:00-18:15	41	41
D - Barnham Road (W)	16:45-17:00	312	315
	17:00-17:15	372	376
	17:15-17:30	456	460
	17:30-17:45	456	460
	17:45-18:00	372	376
	18:00-18:15	312	315

Results
Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Realignment Road	0.27	4.11	0.4	A	283	395
B - Barnham Road (E)	0.40	4.30	0.7	A	472	707
C - Southern approach	0.04	2.85	0.0	A	50	74
D - Barnham Road (W)	0.33	3.84	0.5	A	380	570

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	216	54	314	1277	0.169	215	112	0.0	0.2	3.390	A
B - Barnham Road (E)	387	97	71	1423	0.272	385	458	0.0	0.4	3.485	A
C - Southern approach	41	10	379	1437	0.028	41	77	0.0	0.0	2.576	A
D - Barnham Road (W)	312	78	115	1424	0.219	311	305	0.0	0.3	3.230	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	258	65	375	1240	0.208	258	134	0.2	0.3	3.663	A
B - Barnham Road (E)	462	116	85	1415	0.327	462	548	0.4	0.5	3.774	A
C - Southern approach	49	12	454	1389	0.035	49	93	0.0	0.0	2.685	A
D - Barnham Road (W)	372	93	137	1411	0.264	372	368	0.3	0.4	3.466	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	316	79	460	1191	0.265	316	164	0.3	0.4	4.110	A
B - Barnham Road (E)	566	141	104	1404	0.403	565	671	0.5	0.7	4.288	A
C - Southern approach	59	15	556	1323	0.045	59	113	0.0	0.0	2.848	A
D - Barnham Road (W)	456	114	168	1392	0.327	455	448	0.4	0.5	3.841	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	316	79	460	1191	0.265	316	164	0.4	0.4	4.115	A
B - Barnham Road (E)	566	141	105	1404	0.403	566	672	0.7	0.7	4.295	A
C - Southern approach	59	15	557	1322	0.045	59	113	0.0	0.0	2.849	A
D - Barnham Road (W)	456	114	168	1392	0.327	456	448	0.5	0.5	3.845	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	258	65	376	1240	0.208	258	134	0.4	0.3	3.668	A
B - Barnham Road (E)	462	116	86	1415	0.327	463	549	0.7	0.5	3.786	A
C - Southern approach	49	12	456	1388	0.035	49	93	0.0	0.0	2.689	A
D - Barnham Road (W)	372	93	138	1410	0.264	373	366	0.5	0.4	3.470	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	216	54	315	1276	0.169	216	112	0.3	0.2	3.397	A
B - Barnham Road (E)	387	97	72	1423	0.272	387	460	0.5	0.4	3.480	A
C - Southern approach	41	10	381	1436	0.028	41	78	0.0	0.0	2.579	A
D - Barnham Road (W)	312	78	115	1424	0.219	312	307	0.4	0.3	3.238	A

2023_Option 1+Option 2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	B2233 Barnham Road / Northern section of Re-alignment road	Standard Roundabout		A, B, C, D	5.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Realignment Road		ONE HOUR	✓	390	100.000
B - Barnham Road (E)		ONE HOUR	✓	684	100.000
C - Southern approach		ONE HOUR	✓	590	100.000
D - Barnham Road (W)		ONE HOUR	✓	141	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	126	264	0
	B - Barnham Road (E)	145	0	194	345
	C - Southern approach	331	191	0	68
	D - Barnham Road (W)	0	125	16	0

Proportions

From		To		S at
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	0.00	0.32	
	B - Barnham Road (E)	0.21	0.00	
	C - Southern approach	0.56	0.32	
	D - Barnham Road (W)	0.00	0.89	

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
From	A - A29 Realignment Road	0	1	2	0
	B - Barnham Road (E)	1	0	7	2
	C - Southern approach	2	5	0	1
	D - Barnham Road (W)	0	7	9	0

Average PCU Per Veh

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
From	A - A29 Realignment Road	1.000	1.010	1.020	1.000
	B - Barnham Road (E)	1.010	1.000	1.020	1.000
	C - Southern approach	1.020	1.050	1.000	1.070
	D - Barnham Road (W)	1.000	1.070	1.000	1.000

Detailed Demand Data
Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Realignment Road	07:45-08:00	294	299
	08:00-08:15	351	356
	08:15-08:30	429	437
	08:30-08:45	429	437
	08:45-09:00	351	356
	09:00-09:15	294	299
B - Barnham Road (E)	07:45-08:00	515	531
	08:00-08:15	615	635
	08:15-08:30	753	777
	08:30-08:45	753	777
	08:45-09:00	615	635
	09:00-09:15	515	531
C - Southern approach	07:45-08:00	444	457
	08:00-08:15	530	546
	08:15-08:30	650	668
	08:30-08:45	650	668
	08:45-09:00	530	546
	09:00-09:15	444	457
D - Barnham Road (W)	07:45-08:00	106	114
	08:00-08:15	127	136
	08:15-08:30	155	166
	08:30-08:45	155	166
	08:45-09:00	127	136
	09:00-09:15	106	114

Results
Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Realignment Road	0.35	4.58	0.5	A	356	537
B - Barnham Road (E)	0.60	7.05	1.5	A	628	941
C - Southern approach	0.50	5.58	1.0	A	541	812
D - Barnham Road (W)	0.16	4.34	0.2	A	129	194

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	294	73	249	1286	0.228	292	357	0.0	0.3	3.818	A
B - Barnham Road (E)	515	129	210	1321	0.390	512	331	0.0	0.6	4.440	A
C - Southern approach	444	111	367	1405	0.316	442	355	0.0	0.5	3.732	A
D - Barnham Road (W)	106	27	500	1119	0.095	106	309	0.0	0.1	3.551	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	351	88	298	1256	0.279	350	427	0.3	0.4	3.972	A
B - Barnham Road (E)	615	154	251	1297	0.474	614	397	0.6	0.9	5.264	A
C - Southern approach	530	133	440	1360	0.390	530	428	0.5	0.6	4.333	A
D - Barnham Road (W)	127	32	599	1082	0.119	127	371	0.1	0.1	3.848	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	429	107	365	1216	0.353	429	523	0.4	0.5	4.571	A
B - Barnham Road (E)	753	188	308	1264	0.596	751	486	0.9	1.4	6.985	A
C - Southern approach	650	162	538	1298	0.500	648	521	0.6	1.0	5.527	A
D - Barnham Road (W)	155	39	733	985	0.158	155	453	0.1	0.2	4.334	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	429	107	366	1215	0.353	429	524	0.5	0.5	4.580	A
B - Barnham Road (E)	753	188	308	1264	0.596	753	487	1.4	1.5	7.046	A
C - Southern approach	650	162	539	1297	0.501	650	522	1.0	1.0	5.560	A
D - Barnham Road (W)	155	39	734	985	0.158	155	455	0.2	0.2	4.340	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	351	88	299	1255	0.279	351	429	0.5	0.4	3.983	A
B - Barnham Road (E)	615	154	252	1296	0.474	617	398	1.5	0.9	5.316	A
C - Southern approach	530	133	442	1358	0.390	532	427	1.0	0.6	4.362	A
D - Barnham Road (W)	127	32	601	1061	0.120	127	373	0.2	0.1	3.857	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	294	73	250	1285	0.228	294	359	0.4	0.3	3.635	A
B - Barnham Road (E)	515	129	211	1320	0.390	516	333	0.9	0.6	4.481	A
C - Southern approach	444	111	370	1404	0.316	445	357	0.6	0.5	3.755	A
D - Barnham Road (W)	106	27	503	1117	0.095	106	312	0.1	0.1	3.560	A

2023_Option 1+Option 2, PM

Data Errors and Warnings

No errors or warnings.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	B2233 Barnham Road / Northern section of Re-alignment road	Standard Roundabout		A, B, C, D	6.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2023_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Realignment Road		ONE HOUR	✓	542	100.000
B - Barnham Road (E)		ONE HOUR	✓	645	100.000
C - Southern approach		ONE HOUR	✓	517	100.000
D - Barnham Road (W)		ONE HOUR	✓	329	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	152	390	0
	B - Barnham Road (E)	96	0	271	278
	C - Southern approach	224	222	0	71
	D - Barnham Road (W)	1	302	26	0

Proportions

From		To		S at
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	0.00	0.28	
	B - Barnham Road (E)	0.15	0.00	
	C - Southern approach	0.43	0.43	
	D - Barnham Road (W)	0.00	0.92	

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	0	1	0
	B - Barnham Road (E)	1	0	1	2
	C - Southern approach	1	2	0	0
	D - Barnham Road (W)	0	1	0	0

Average PCU Per Veh

From		To		Saf
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	1.000	1.000	
	B - Barnham Road (E)	1.010	1.000	
	C - Southern approach	1.010	1.020	
	D - Barnham Road (W)	1.000	1.010	

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Realignment Road	16:45-17:00	408	411
	17:00-17:15	487	491
	17:15-17:30	597	601
	17:30-17:45	597	601
	17:45-18:00	487	491
	18:00-18:15	408	411
B - Barnham Road (E)	16:45-17:00	488	493
	17:00-17:15	580	588
	17:15-17:30	710	720
	17:30-17:45	710	720
	17:45-18:00	580	588
	18:00-18:15	488	493
C - Southern approach	16:45-17:00	389	394
	17:00-17:15	465	471
	17:15-17:30	569	577
	17:30-17:45	569	577
	17:45-18:00	465	471
	18:00-18:15	389	394
D - Barnham Road (W)	16:45-17:00	248	250
	17:00-17:15	298	298
	17:15-17:30	362	366
	17:30-17:45	362	366
	17:45-18:00	298	298
	18:00-18:15	248	250

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Realignment Road	0.54	7.21	1.2	A	497	748
B - Barnham Road (E)	0.59	7.33	1.4	A	592	888
C - Southern approach	0.41	4.34	0.7	A	474	712
D - Barnham Road (W)	0.32	4.66	0.5	A	302	453

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	408	102	412	1209	0.338	408	241	0.0	0.5	4.473	A
B - Barnham Road (E)	488	121	312	1286	0.377	483	507	0.0	0.6	4.468	A
C - Southern approach	389	97	280	1483	0.283	388	515	0.0	0.4	3.283	A
D - Barnham Road (W)	248	62	406	1249	0.198	247	262	0.0	0.2	3.589	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	487	122	494	1161	0.420	488	288	0.5	0.7	5.326	A
B - Barnham Road (E)	580	145	373	1280	0.464	579	807	0.6	0.9	5.352	A
C - Southern approach	465	116	336	1447	0.321	464	617	0.4	0.5	3.660	A
D - Barnham Road (W)	296	74	487	1200	0.246	295	313	0.2	0.3	3.977	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	597	149	605	1097	0.544	595	353	0.7	1.2	7.149	A
B - Barnham Road (E)	710	178	457	1202	0.591	708	743	0.9	1.4	7.254	A
C - Southern approach	569	142	410	1399	0.407	568	754	0.5	0.7	4.327	A
D - Barnham Road (W)	362	91	596	1135	0.319	362	383	0.3	0.5	4.653	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	597	149	606	1096	0.544	597	353	1.2	1.2	7.208	A
B - Barnham Road (E)	710	178	458	1201	0.591	710	744	1.4	1.4	7.329	A
C - Southern approach	569	142	412	1399	0.407	569	756	0.7	0.7	4.340	A
D - Barnham Road (W)	362	91	597	1134	0.319	362	384	0.5	0.5	4.662	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	487	122	495	1161	0.420	489	289	1.2	0.7	5.377	A
B - Barnham Road (E)	580	145	375	1249	0.464	582	809	1.4	0.9	5.412	A
C - Southern approach	465	116	338	1446	0.321	466	620	0.7	0.5	3.677	A
D - Barnham Road (W)	296	74	488	1199	0.247	296	315	0.5	0.3	3.989	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	408	102	415	1208	0.338	409	242	0.7	0.5	4.512	A
B - Barnham Road (E)	488	121	314	1285	0.378	487	510	0.9	0.6	4.515	A
C - Southern approach	389	97	282	1481	0.283	390	518	0.5	0.4	3.298	A
D - Barnham Road (W)	248	62	409	1247	0.199	248	263	0.3	0.2	3.605	A

2038_Option 1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	B2233 Barnham Road / Northern section of Re-alignment road	Standard Roundabout		A, B, C, D	3.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2038_Option 1	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Realignment Road		ONE HOUR	✓	217	100.000
B - Barnham Road (E)		ONE HOUR	✓	443	100.000
C - Southern approach		ONE HOUR	✓	397	100.000
D - Barnham Road (W)		ONE HOUR	✓	324	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	152	65	0
	B - Barnham Road (E)	94	0	51	298
	C - Southern approach	141	8	0	250
	D - Barnham Road (W)	0	292	32	0

Proportions

From		To		S af
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	0.00	0.70	
	B - Barnham Road (E)	0.21	0.00	
	C - Southern approach	0.36	0.02	
	D - Barnham Road (W)	0.00	0.90	

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	3	0	0
	B - Barnham Road (E)	1	0	0	5
	C - Southern approach	0	0	0	0
	D - Barnham Road (W)	0	5	0	0

Average PCU Per Veh

From		To		Saf
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	1.000	1.030	
	B - Barnham Road (E)	1.010	1.000	
	C - Southern approach	1.000	1.000	
	D - Barnham Road (W)	1.000	1.050	

Detailed Demand Data
Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Realignment Road	07:45-08:00	163	167
	08:00-08:15	195	199
	08:15-08:30	239	244
	08:30-08:45	239	244
	08:45-09:00	195	199
	09:00-09:15	163	167
B - Barnham Road (E)	07:45-08:00	334	345
	08:00-08:15	398	412
	08:15-08:30	488	505
	08:30-08:45	488	505
	08:45-09:00	398	412
	09:00-09:15	334	345
C - Southern approach	07:45-08:00	299	299
	08:00-08:15	357	357
	08:15-08:30	437	437
	08:30-08:45	437	437
	08:45-09:00	357	357
	09:00-09:15	299	299
D - Barnham Road (W)	07:45-08:00	244	255
	08:00-08:15	291	304
	08:15-08:30	357	373
	08:30-08:45	357	373
	08:45-09:00	291	304
	09:00-09:15	244	255

Results
Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Realignment Road	0.20	3.69	0.2	A	199	299
B - Barnham Road (E)	0.35	4.05	0.5	A	407	610
C - Southern approach	0.31	3.75	0.5	A	364	548
D - Barnham Road (W)	0.28	3.86	0.4	A	297	446

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	163	41	248	1283	0.127	163	176	0.0	0.1	3.210	A
B - Barnham Road (E)	334	83	73	1397	0.239	332	338	0.0	0.3	3.379	A
C - Southern approach	299	75	294	1489	0.201	298	111	0.0	0.3	3.020	A
D - Barnham Road (W)	244	61	181	1338	0.182	243	411	0.0	0.2	3.284	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	195	49	296	1254	0.156	195	211	0.1	0.2	3.397	A
B - Barnham Road (E)	398	100	87	1389	0.287	398	404	0.3	0.4	3.634	A
C - Southern approach	357	89	352	1450	0.246	357	133	0.3	0.3	3.292	A
D - Barnham Road (W)	291	73	216	1317	0.221	291	492	0.2	0.3	3.507	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	239	60	363	1215	0.197	239	258	0.2	0.2	3.687	A
B - Barnham Road (E)	488	122	107	1378	0.354	487	495	0.4	0.5	4.040	A
C - Southern approach	437	109	431	1398	0.313	437	163	0.3	0.5	3.743	A
D - Barnham Road (W)	357	89	265	1290	0.277	356	603	0.3	0.4	3.856	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	239	60	363	1215	0.197	239	259	0.2	0.2	3.688	A
B - Barnham Road (E)	488	122	107	1377	0.354	488	495	0.5	0.5	4.045	A
C - Southern approach	437	109	432	1397	0.313	437	163	0.5	0.5	3.747	A
D - Barnham Road (W)	357	89	265	1289	0.277	357	603	0.4	0.4	3.859	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	195	49	297	1254	0.156	195	212	0.2	0.2	3.402	A
B - Barnham Road (E)	398	100	87	1389	0.287	399	405	0.5	0.4	3.638	A
C - Southern approach	357	89	353	1450	0.246	357	133	0.5	0.3	3.296	A
D - Barnham Road (W)	291	73	217	1317	0.221	292	493	0.4	0.3	3.510	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	163	41	249	1283	0.127	164	177	0.2	0.1	3.216	A
B - Barnham Road (E)	334	83	73	1397	0.239	334	339	0.4	0.3	3.387	A
C - Southern approach	299	75	295	1488	0.201	299	112	0.3	0.3	3.029	A
D - Barnham Road (W)	244	61	182	1338	0.182	244	413	0.3	0.2	3.295	A

2038_Option 1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	B2233 Barnham Road / Northern section of Re-alignment road	Standard Roundabout		A, B, C, D	5.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2038_Option 1	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Realignment Road		ONE HOUR	✓	432	100.000
B - Barnham Road (E)		ONE HOUR	✓	568	100.000
C - Southern approach		ONE HOUR	✓	197	100.000
D - Barnham Road (W)		ONE HOUR	✓	457	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	189	243	0
	B - Barnham Road (E)	206	0	37	325
	C - Southern approach	119	20	0	58
	D - Barnham Road (W)	1	375	81	0

Proportions

From		To		Saf
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	0.00	0.44	
	B - Barnham Road (E)	0.36	0.00	
	C - Southern approach	0.60	0.10	
	D - Barnham Road (W)	0.00	0.82	

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	0	0	0
	B - Barnham Road (E)	0	0	0	2
	C - Southern approach	0	0	0	0
	D - Barnham Road (W)	0	1	0	0

Average PCU Per Veh

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	1.000	1.000	1.000	1.000
	B - Barnham Road (E)	1.000	1.000	1.000	1.000
	C - Southern approach	1.000	1.000	1.000	1.000
	D - Barnham Road (W)	1.000	1.010	1.000	1.000

Detailed Demand Data
Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Realignment Road	16:45-17:00	325	325
	17:00-17:15	388	388
	17:15-17:30	476	476
	17:30-17:45	476	476
	17:45-18:00	388	388
	18:00-18:15	325	325
B - Barnham Road (E)	16:45-17:00	428	433
	17:00-17:15	511	516
	17:15-17:30	625	633
	17:30-17:45	625	633
	17:45-18:00	511	516
	18:00-18:15	428	433
C - Southern approach	16:45-17:00	148	148
	17:00-17:15	177	177
	17:15-17:30	217	217
	17:30-17:45	217	217
	17:45-18:00	177	177
	18:00-18:15	148	148
D - Barnham Road (W)	16:45-17:00	344	347
	17:00-17:15	411	414
	17:15-17:30	503	507
	17:30-17:45	503	507
	17:45-18:00	411	414
	18:00-18:15	344	347

Results
Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Realignment Road	0.41	5.31	0.7	A	396	595
B - Barnham Road (E)	0.49	5.82	1.0	A	521	782
C - Southern approach	0.17	3.30	0.2	A	181	271
D - Barnham Road (W)	0.40	4.70	0.7	A	419	629

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	325	81	357	1252	0.280	324	244	0.0	0.3	3.875	A
B - Barnham Road (E)	428	107	243	1332	0.321	426	438	0.0	0.5	3.966	A
C - Southern approach	148	37	398	1427	0.104	148	271	0.0	0.1	2.815	A
D - Barnham Road (W)	344	86	259	1341	0.257	343	287	0.0	0.3	3.601	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	388	97	427	1210	0.321	388	293	0.3	0.5	4.374	A
B - Barnham Road (E)	511	128	291	1304	0.392	510	524	0.5	0.8	4.530	A
C - Southern approach	177	44	477	1376	0.129	177	324	0.1	0.1	3.001	A
D - Barnham Road (W)	411	103	310	1311	0.313	410	344	0.3	0.5	3.997	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	476	119	523	1154	0.412	475	358	0.5	0.7	5.292	A
B - Barnham Road (E)	625	156	356	1286	0.494	624	642	0.6	1.0	5.596	A
C - Southern approach	217	54	583	1307	0.166	217	397	0.1	0.2	3.300	A
D - Barnham Road (W)	503	126	379	1289	0.396	502	421	0.5	0.7	4.688	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	476	119	524	1154	0.412	475	359	0.7	0.7	5.308	A
B - Barnham Road (E)	625	156	357	1286	0.494	625	643	1.0	1.0	5.621	A
C - Southern approach	217	54	585	1307	0.166	217	397	0.2	0.2	3.302	A
D - Barnham Road (W)	503	126	380	1289	0.396	503	422	0.7	0.7	4.699	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	388	97	429	1210	0.321	389	294	0.7	0.5	4.392	A
B - Barnham Road (E)	511	128	292	1303	0.392	512	526	1.0	0.6	4.556	A
C - Southern approach	177	44	479	1375	0.129	177	325	0.2	0.1	3.008	A
D - Barnham Road (W)	411	103	311	1310	0.314	412	345	0.7	0.5	4.011	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	325	81	359	1251	0.280	326	246	0.5	0.4	3.894	A
B - Barnham Road (E)	428	107	244	1331	0.321	428	440	0.6	0.5	3.991	A
C - Southern approach	148	37	400	1425	0.104	148	272	0.1	0.1	2.819	A
D - Barnham Road (W)	344	86	260	1340	0.257	345	289	0.5	0.3	3.616	A

2038_Option 1+Option 2, AM

Data Errors and Warnings

No errors or warnings.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	B2233 Barnham Road / Northern section of Re-alignment road	Standard Roundabout		A, B, C, D	7.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2038_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Realignment Road		ONE HOUR	✓	559	100.000
B - Barnham Road (E)		ONE HOUR	✓	645	100.000
C - Southern approach		ONE HOUR	✓	849	100.000
D - Barnham Road (W)		ONE HOUR	✓	158	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	149	410	0
	B - Barnham Road (E)	64	0	259	322
	C - Southern approach	499	198	0	152
	D - Barnham Road (W)	0	135	23	0

Proportions

From		To		Saf
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	0.00	0.27	
	B - Barnham Road (E)	0.10	0.00	
	C - Southern approach	0.59	0.23	
	D - Barnham Road (W)	0.00	0.85	

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	2	1	0
	B - Barnham Road (E)	1	0	6	2
	C - Southern approach	0	4	0	0
	D - Barnham Road (W)	0	5	7	0

Average PCU Per Veh

From		To		S ap
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	1.000	1.020	
	B - Barnham Road (E)	1.010	1.000	
	C - Southern approach	1.000	1.040	
	D - Barnham Road (W)	1.000	1.050	

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Realignment Road	07:45-08:00	421	426
	08:00-08:15	503	509
	08:15-08:30	615	623
	08:30-08:45	615	623
	08:45-09:00	503	509
	09:00-09:15	421	426
B - Barnham Road (E)	07:45-08:00	486	503
	08:00-08:15	580	600
	08:15-08:30	710	735
	08:30-08:45	710	735
	08:45-09:00	580	600
	09:00-09:15	486	503
C - Southern approach	07:45-08:00	639	645
	08:00-08:15	763	770
	08:15-08:30	935	943
	08:30-08:45	935	943
	08:45-09:00	763	770
	09:00-09:15	639	645
D - Barnham Road (W)	07:45-08:00	119	125
	08:00-08:15	142	150
	08:15-08:30	174	183
	08:30-08:45	174	183
	08:45-09:00	142	150
	09:00-09:15	119	125

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Realignment Road	0.51	6.08	1.0	A	513	769
B - Barnham Road (E)	0.61	7.90	1.5	A	592	888
C - Southern approach	0.67	7.82	2.0	A	779	1169
D - Barnham Road (W)	0.18	4.64	0.2	A	145	217

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	421	105	287	1282	0.328	419	422	0.0	0.5	4.160	A
B - Barnham Road (E)	486	121	324	1253	0.388	483	361	0.0	0.6	4.663	A
C - Southern approach	639	160	289	1482	0.431	636	518	0.0	0.8	4.243	A
D - Barnham Road (W)	119	30	570	1103	0.108	118	355	0.0	0.1	3.653	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	503	126	320	1251	0.402	502	505	0.5	0.7	4.802	A
B - Barnham Road (E)	580	145	369	1216	0.477	579	433	0.6	0.9	5.642	A
C - Southern approach	763	191	346	1445	0.528	762	621	0.8	1.1	5.257	A
D - Barnham Road (W)	142	36	683	1039	0.137	142	425	0.1	0.2	4.015	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	615	154	391	1208	0.510	614	618	0.7	1.0	6.048	A
B - Barnham Road (E)	710	178	476	1186	0.809	708	529	0.9	1.5	7.814	A
C - Southern approach	935	234	424	1396	0.670	931	760	1.1	2.0	7.693	A
D - Barnham Road (W)	174	43	835	951	0.183	174	520	0.2	0.2	4.629	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	615	154	392	1207	0.510	615	620	1.0	1.0	6.083	A
B - Barnham Road (E)	710	178	477	1185	0.809	710	531	1.5	1.5	7.905	A
C - Southern approach	935	234	425	1395	0.670	935	762	2.0	2.0	7.819	A
D - Barnham Road (W)	174	43	838	949	0.183	174	522	0.2	0.2	4.641	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	503	126	321	1250	0.402	504	508	1.0	0.7	4.837	A
B - Barnham Road (E)	580	145	390	1215	0.477	582	435	1.5	0.9	5.715	A
C - Southern approach	763	191	348	1444	0.529	767	624	2.0	1.1	5.342	A
D - Barnham Road (W)	142	36	687	1036	0.137	142	428	0.2	0.2	4.030	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	421	105	289	1281	0.328	422	425	0.7	0.5	4.192	A
B - Barnham Road (E)	486	121	327	1251	0.388	487	364	0.9	0.6	4.714	A
C - Southern approach	639	160	291	1481	0.432	641	522	1.1	0.8	4.294	A
D - Barnham Road (W)	119	30	574	1101	0.108	119	358	0.2	0.1	3.668	A

2038_Option 1+Option 2, PM

Data Errors and Warnings

No errors or warnings.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	B2233 Barnham Road / Northern section of Re-alignment road	Standard Roundabout		A, B, C, D	10.75	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2038_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Realignment Road		ONE HOUR	✓	747	100.000
B - Barnham Road (E)		ONE HOUR	✓	708	100.000
C - Southern approach		ONE HOUR	✓	713	100.000
D - Barnham Road (W)		ONE HOUR	✓	362	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	113	634	0
	B - Barnham Road (E)	141	0	348	219
	C - Southern approach	359	232	0	122
	D - Barnham Road (W)	1	292	69	0

Proportions

From		To		S af
		A - A29 Realignment Road	B - Barnham Road (E)	
	A - A29 Realignment Road	0.00	0.15	
	B - Barnham Road (E)	0.20	0.00	
	C - Southern approach	0.50	0.33	
	D - Barnham Road (W)	0.00	0.81	

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	0	0	0	0
	B - Barnham Road (E)	0	0	1	3
	C - Southern approach	0	2	0	0
	D - Barnham Road (W)	0	1	0	0

Average PCU Per Veh

From		To			
		A - A29 Realignment Road	B - Barnham Road (E)	C - Southern approach	D - Barnham Road (W)
	A - A29 Realignment Road	1.000	1.000		
	B - Barnham Road (E)	1.000	1.000		
	C - Southern approach	1.000	1.020		
	D - Barnham Road (W)	1.000	1.010		

Detailed Demand Data
Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Realignment Road	16:45-17:00	562	562
	17:00-17:15	672	672
	17:15-17:30	822	822
	17:30-17:45	822	822
	17:45-18:00	672	672
	18:00-18:15	562	562
B - Barnham Road (E)	16:45-17:00	533	541
	17:00-17:15	636	646
	17:15-17:30	780	791
	17:30-17:45	780	791
	17:45-18:00	636	646
	18:00-18:15	533	541
C - Southern approach	16:45-17:00	537	540
	17:00-17:15	641	645
	17:15-17:30	785	790
	17:30-17:45	785	790
	17:45-18:00	641	645
	18:00-18:15	537	540
D - Barnham Road (W)	16:45-17:00	273	275
	17:00-17:15	325	328
	17:15-17:30	399	402
	17:30-17:45	399	402
	17:45-18:00	325	328
	18:00-18:15	273	275

Results
Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A29 Realignment Road	0.76	14.09	3.1	B	685	1028
B - Barnham Road (E)	0.76	14.80	3.1	B	650	975
C - Southern approach	0.55	5.89	1.2	A	654	981
D - Barnham Road (W)	0.39	5.88	0.6	A	332	498

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	562	141	445	1199	0.469	559	375	0.0	0.9	5.594	A
B - Barnham Road (E)	533	133	526	1164	0.458	530	477	0.0	0.8	5.643	A
C - Southern approach	537	134	269	1499	0.358	535	786	0.0	0.6	3.726	A
D - Barnham Road (W)	273	68	549	1167	0.234	271	255	0.0	0.3	4.014	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	672	168	532	1147	0.585	669	450	0.9	1.4	7.499	A
B - Barnham Road (E)	636	159	630	1104	0.576	634	572	0.8	1.3	7.632	A
C - Southern approach	641	160	323	1465	0.438	640	942	0.6	0.8	4.361	A
D - Barnham Road (W)	325	81	657	1102	0.295	325	306	0.3	0.4	4.628	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	822	206	651	1077	0.763	816	549	1.4	3.0	13.435	B
B - Barnham Road (E)	780	195	768	1024	0.761	773	699	1.3	3.0	13.960	B
C - Southern approach	785	196	393	1419	0.553	783	1148	0.8	1.2	5.644	A
D - Barnham Road (W)	399	100	803	1015	0.393	398	373	0.4	0.6	5.824	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	822	206	653	1076	0.764	822	551	3.0	3.1	14.094	B
B - Barnham Road (E)	780	195	774	1021	0.763	779	701	3.0	3.1	14.797	B
C - Southern approach	785	196	396	1417	0.554	785	1157	1.2	1.2	5.693	A
D - Barnham Road (W)	399	100	806	1013	0.393	399	375	0.6	0.6	5.855	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	672	168	535	1146	0.586	678	453	3.1	1.4	7.803	A
B - Barnham Road (E)	636	159	638	1100	0.579	643	575	3.1	1.4	8.001	A
C - Southern approach	641	160	327	1462	0.439	643	954	1.2	0.8	4.406	A
D - Barnham Road (W)	325	81	661	1100	0.296	326	309	0.6	0.4	4.660	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A29 Realignment Road	562	141	447	1197	0.470	565	378	1.4	0.9	5.709	A
B - Barnham Road (E)	533	133	531	1161	0.459	535	481	1.4	0.9	5.770	A
C - Southern approach	537	134	272	1497	0.359	538	794	0.8	0.6	3.754	A
D - Barnham Road (W)	273	68	552	1165	0.234	273	258	0.4	0.3	4.040	A



Junctions 9
PICADY 9 - Priority Intersection Module
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Filename: 3b_B2233 Slip road_A29.j9
 Path: C:\Users\INVN01911\Desktop\A29
 Report generation date: 5/12/2020 1:46:39 PM

- »2023_Option 1, AM
- »2023_Option 1, PM
- »2023_Option 1+Option 2, AM
- »2023_Option 1+Option 2, PM
- »2038_Option 1, AM
- »2038_Option 1, PM
- »2038_Option 1+Option 2, AM
- »2038_Option 1+Option 2, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2023_Option 1								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.4	20.07	0.29	C	1.0	24.21	0.51	C
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2023_Option 1+Option 2								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.2	9.66	0.17	A	0.4	10.26	0.31	B
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2038_Option 1								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.4	24.70	0.30	C	0.8	25.70	0.44	D
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2038_Option 1+Option 2								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.3	10.92	0.22	B	0.5	11.35	0.33	B
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A

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

File summary

File Description

Title	Nyton Road, A29
Location	50.842184°, -0.887523°
Site number	3b
Date	3/24/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INAA02374
Description	

Units

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



Flows show signal traffic demand (Veh/hr).
 Signals (downstream) and show RFD (s)

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023_Option 1	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023_Option 1	PM	ONE HOUR	16:45	18:15	15	✓
D3	2023_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038_Option 1	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038_Option 1	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓
D8	2038_Option 1+Option 2	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2023_Option 1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3b	B2233 Slip road/ A29	T-Junction	Two-way		0.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A29 Nyton Road South		Major
B	B2233 Slip Road		Minor
C	A29 Nyton Road North		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A29 Nyton Road North	6.80		✓	2.20	71.8	✓	1.25

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - B2233 Slip Road	One lane plus flare	10.00	6.70	3.10	3.00	3.00	✓	1.00	25	82

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
J3b	B-A	589	0.100	0.253	0.159	0.361
J3b	B-C	699	0.103	0.261	-	-
J3b	C-B	616	0.230	0.230	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023_Option 1	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Nyton Road South		ONE HOUR	✓	859	100.000
B - B2233 Slip Road		ONE HOUR	✓	68	100.000
C - A29 Nyton Road North		ONE HOUR	✓	499	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0	222	837
B - B2233 Slip Road	68	0	0
C - A29 Nyton Road North	499	0	0

Proportions

From	To		
	A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0.00	0.28	0.74
B - B2233 Slip Road	1.00	0.00	0.00
C - A29 Nyton Road North	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
A - A29 Nyton Road South	0	3	4
B - B2233 Slip Road	6	0	0
C - A29 Nyton Road North	3	0	0

Average PCU Per Veh

From	To		
	A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
A - A29 Nyton Road South	1.000	1.027	1.036
B - B2233 Slip Road	1.062	1.000	1.000
C - A29 Nyton Road North	1.035	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Nyton Road South	07:45-08:00	647	669
	08:00-08:15	772	799
	08:15-08:30	946	978
	08:30-08:45	946	978
	08:45-09:00	772	799
	09:00-09:15	647	669
B - B2233 Slip Road	07:45-08:00	51	54
	08:00-08:15	61	65
	08:15-08:30	74	79
	08:30-08:45	74	79
	08:45-09:00	61	65
	09:00-09:15	51	54
C - A29 Nyton Road North	07:45-08:00	376	389
	08:00-08:15	449	465
	08:15-08:30	550	569
	08:30-08:45	550	569
	08:45-09:00	449	465
	09:00-09:15	376	389

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.29	20.07	0.4	C	62	93
C-AB	0.00	0.00	0.0	A	0	0
C-A					458	687
A-B					204	306
A-C					585	877

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	531	0.000	0	0.0	0.0	0.000	A
B-A	51	13	343	0.148	50	0.0	0.2	12.275	B
C-AB	0	0	923	0.000	0	0.0	0.0	0.000	A
C-A	376	94			376				
A-B	167	42			167				
A-C	480	120			480				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	496	0.000	0	0.0	0.0	0.000	A
B-A	61	15	305	0.199	60	0.2	0.2	14.678	B
C-AB	0	0	883	0.000	0	0.0	0.0	0.000	A
C-A	449	112			449				
A-B	200	50			200				
A-C	573	143			573				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	447	0.000	0	0.0	0.0	0.000	A
B-A	74	19	254	0.293	74	0.2	0.4	19.933	C
C-AB	0	0	781	0.000	0	0.0	0.0	0.000	A
C-A	550	137			550				
A-B	244	61			244				
A-C	701	175			701				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	447	0.000	0	0.0	0.0	0.000	A
B-A	74	19	254	0.293	74	0.4	0.4	20.067	C
C-AB	0	0	781	0.000	0	0.0	0.0	0.000	A
C-A	550	137			550				
A-B	244	61			244				
A-C	701	175			701				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	496	0.000	0	0.0	0.0	0.000	A
B-A	61	15	305	0.199	61	0.4	0.3	14.790	B
C-AB	0	0	883	0.000	0	0.0	0.0	0.000	A
C-A	449	112			449				
A-B	200	50			200				
A-C	573	143			573				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	531	0.000	0	0.0	0.0	0.000	A
B-A	51	13	343	0.148	51	0.3	0.2	12.357	B
C-AB	0	0	923	0.000	0	0.0	0.0	0.000	A
C-A	376	94			376				
A-B	167	42			167				
A-C	480	120			480				

2023_Option 1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3b	B2233 Slip road/ A29	T-Junction	Two-way		2.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023_Option 1	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Nyton Road South		ONE HOUR	✓	636	100.000
B - B2233 Slip Road		ONE HOUR	✓	141	100.000
C - A29 Nyton Road North		ONE HOUR	✓	614	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	0	156	480
	B - B2233 Slip Road	141	0	0
	C - A29 Nyton Road North	614	0	0

Proportions

From		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	0.00	0.24	0.76
	B - B2233 Slip Road	1.00	0.00	0.00
	C - A29 Nyton Road North	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	0	1	2
	B - B2233 Slip Road	1	0	0
	C - A29 Nyton Road North	2	0	0

Average PCU Per Veh

From		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	1.000	1.012	1.020
	B - B2233 Slip Road	1.008	1.000	1.000
	C - A29 Nyton Road North	1.021	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Nyton Road South	16:45-17:00	478	487
	17:00-17:15	571	581
	17:15-17:30	700	712
	17:30-17:45	700	712
	17:45-18:00	571	581
	18:00-18:15	478	487
B - B2233 Slip Road	16:45-17:00	108	107
	17:00-17:15	127	128
	17:15-17:30	155	156
	17:30-17:45	155	156
	17:45-18:00	127	128
	18:00-18:15	108	107
C - A29 Nyton Road North	16:45-17:00	462	472
	17:00-17:15	552	563
	17:15-17:30	676	690
	17:30-17:45	676	690
	17:45-18:00	552	563
	18:00-18:15	462	472

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.51	24.21	1.0	C	130	194
C-AB	0.00	0.00	0.0	A	0	0
C-A					563	845
A-B					143	214
A-C					441	661

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	550	0.000	0	0.0	0.0	0.000	A
B-A	106	27	387	0.275	105	0.0	0.4	12.714	B
C-AB	0	0	1007	0.000	0	0.0	0.0	0.000	A
C-A	462	116			462				
A-B	117	29			117				
A-C	361	90			361				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	517	0.000	0	0.0	0.0	0.000	A
B-A	127	32	352	0.361	126	0.4	0.6	15.903	C
C-AB	0	0	983	0.000	0	0.0	0.0	0.000	A
C-A	552	138			552				
A-B	140	35			140				
A-C	432	108			432				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	470	0.000	0	0.0	0.0	0.000	A
B-A	155	39	304	0.512	154	0.6	1.0	23.696	C
C-AB	0	0	903	0.000	0	0.0	0.0	0.000	A
C-A	676	169			676				
A-B	171	43			171				
A-C	529	132			529				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	469	0.000	0	0.0	0.0	0.000	A
B-A	155	39	304	0.512	155	1.0	1.0	24.210	C
C-AB	0	0	903	0.000	0	0.0	0.0	0.000	A
C-A	676	169			676				
A-B	171	43			171				
A-C	529	132			529				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	516	0.000	0	0.0	0.0	0.000	A
B-A	127	32	352	0.361	129	1.0	0.6	16.259	C
C-AB	0	0	983	0.000	0	0.0	0.0	0.000	A
C-A	552	138			552				
A-B	140	35			140				
A-C	432	108			432				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	549	0.000	0	0.0	0.0	0.000	A
B-A	106	27	387	0.275	107	0.6	0.4	12.915	B
C-AB	0	0	1007	0.000	0	0.0	0.0	0.000	A
C-A	462	116			462				
A-B	117	29			117				
A-C	361	90			361				

2023_Option 1+Option 2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J3b	B2233 Slip road/ A29	T-Junction	Two-way		1.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023_Option 1+Option 2	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A29 Nyton Road South		ONE HOUR	✓	438	100.000
B - B2233 Slip Road		ONE HOUR	✓	68	100.000
C - A29 Nyton Road North		ONE HOUR	✓	71	100.000

Origin-Destination Data

Demand (Veh/hr)

From		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	0	266	173
	B - B2233 Slip Road	68	0	0
	C - A29 Nyton Road North	71	0	0

Proportions

From		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	0.00	0.61	0.39
	B - B2233 Slip Road	1.00	0.00	0.00
	C - A29 Nyton Road North	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	0	2	5
	B - B2233 Slip Road	6	0	0
	C - A29 Nyton Road North	4	0	0

Average PCU Per Veh

From		To		
		A - A29 Nyton Road South	B - B2233 Slip Road	C - A29 Nyton Road North
From	A - A29 Nyton Road South	1.000	1.023	1.047
	B - B2233 Slip Road	1.063	1.000	1.000
	C - A29 Nyton Road North	1.038	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A29 Nyton Road South	07:45-08:00	330	341
	08:00-08:15	394	407
	08:15-08:30	483	498
	08:30-08:45	483	498
	08:45-09:00	394	407
	09:00-09:15	330	341
B - B2233 Slip Road	07:45-08:00	51	54
	08:00-08:15	61	65
	08:15-08:30	75	79
	08:30-08:45	75	79
	08:45-09:00	61	65
	09:00-09:15	51	54
C - A29 Nyton Road North	07:45-08:00	53	55
	08:00-08:15	64	66
	08:15-08:30	78	81
	08:30-08:45	78	81
	08:45-09:00	64	66
	09:00-09:15	53	55

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.17	9.66	0.2	A	62	93
C-AB	0.00	0.00	0.0	A	0	0
C-A					65	98
A-B					244	366
A-C					158	238

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	0	0	625	0.000	0	0.0	0.0	0.000	A
B-A	51	13	475	0.108	51	0.0	0.1	8.471	A
C-AB	0	0	1074	0.000	0	0.0	0.0	0.000	A
C-A	53	13			53				
A-B	200	50			200				
A-C	130	33			130				