

**OXFORDSHIRE COUNTY COUNCIL - HIGHWAYS & TRANSPORT**

Accidents between following dates:  
01/01/2009 and 31/01/2014




Legend	
● (2)	Fatal
● (14)	Serious
● (98)	Slight

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Date drawn: 05/03/2014  
 Drawn by: CJM

Map centre:  
 easting. 457220, northing. 222560

<b>PICADY</b>		
GUI Version: 5.1 AE Analysis Program Release: 5.0 (MAY 2010)		
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TRL Limited Crowthorne House Nine Mile Ride Wokingham, Berks. RG40 3GA, UK		Tel: +44 (0)1344 770758 Fax: +44 (0)1344 770864 E-mail: <a href="mailto:software@trl.co.uk">software@trl.co.uk</a> Web: <a href="http://www.trlsoftware.co.uk">www.trlsoftware.co.uk</a>
<b>The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution</b>		

## Run Analysis

Parameter	Values
File Run	K:\..\J6\1 _ Field Street Bucknell Road Base Year 2012 PICADY Model Results J6.vpi
Date Run	30 July 2014
Time Run	11:42:55
Driving Side	Drive On The Left

## Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Field Street South	100
Arm B	Bucknell Road	100
Arm C	Field Street North	100

## Stream Labelling Convention

Stream A-B contains traffic going from A to B etc.

## Run Information

Parameter	Values
Run Title	Field Street/Bucknell Road (J6)
Location	Bicester
Date	19 May 2014
Enumerator	fda76470 [HCL51987]
Job Number	-
Status	-
Client	-
Description	-

## Errors and Warnings

Parameter	Values
Warning	No Errors Or Warnings

## Geometric Data

### Geometric Parameters

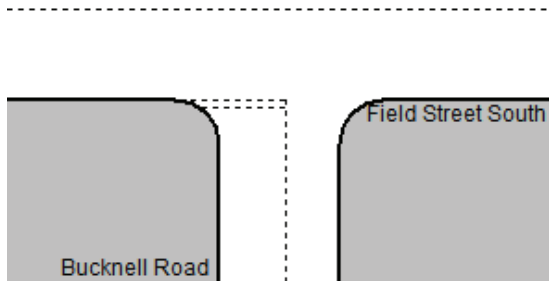
Parameter	Minor Arm B
Major Road Carriageway Width (m)	6.10
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	2.20
Minor Road First Lane Width (m)	3.00
Minor Road Visibility To Right (m)	26
Minor Road Visibility To Left (m)	19
Major Road Right Turn Visibility (m)	30
Major Road Right Turn Blocks Traffic	Yes (if over 0 veh)

### Slope and Intercept Values

Stream	Intercept for Stream	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	496.531	0.090	0.228	0.143	0.325
B-C	640.304	0.098	0.247	-	-
C-B	591.337	0.228	0.228	-	-

Note: Streams may be combined in which case capacity will be adjusted  
These values do not allow for any site-specific corrections

### Junction Diagram



### Demand Data

#### Modelling Periods

Parameter	Period	Duration (min)	Segment Length (min)
First Modelling Period	08:00-09:00	60	15
Second Modelling Period	17:00-18:00	60	15

**Direct Entry Flows****Demand Set:** AM Base**Modelling Period:** 08:00-09:00**Segment:** 08:00-08:15

<b>Arm</b>	<b>Flow (veh/interval)</b>
Arm A	123.50
Arm B	103.25
Arm C	176.25

**Segment:** 08:15-08:30

<b>Arm</b>	<b>Flow (veh/interval)</b>
Arm A	123.50
Arm B	103.25
Arm C	176.25

**Segment:** 08:30-08:45

<b>Arm</b>	<b>Flow (veh/interval)</b>
Arm A	123.50
Arm B	103.25
Arm C	176.25

**Segment:** 08:45-09:00

<b>Arm</b>	<b>Flow (veh/interval)</b>
Arm A	123.50
Arm B	103.25
Arm C	176.25

**Demand Set:** PM Base**Modelling Period:** 17:00-18:00**Segment:** 17:00-17:15

<b>Arm</b>	<b>Flow (veh/interval)</b>
Arm A	176.00
Arm B	78.00
Arm C	173.25

**Segment: 17:15-17:30**

Arm	Flow (veh/interval)
Arm A	176.00
Arm B	78.00
Arm C	173.25

**Segment: 17:30-17:45**

Arm	Flow (veh/interval)
Arm A	176.00
Arm B	78.00
Arm C	173.25

**Segment: 17:45-18:00**

Arm	Flow (veh/interval)
Arm A	176.00
Arm B	78.00
Arm C	173.25

**Turning Counts****Demand Set: AM Base****Modelling Period: 08:00-09:00**

From/To	Arm A	Arm B	Arm C
Arm A	-	80	414
Arm B	0	-	413
Arm C	588	117	-

**Demand Set: PM Base****Modelling Period: 17:00-18:00**

From/To	Arm A	Arm B	Arm C
Arm A	-	246	458
Arm B	0	-	312
Arm C	428	265	-

Turning proportions are calculated from turning count data

### Turning Proportions

**Demand Set:** AM Base

**Modelling Period:** 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.162	0.838
Arm B	0.000	0.000	1.000
Arm C	0.834	0.166	0.000

**Demand Set:** PM Base

**Modelling Period:** 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.349	0.651
Arm B	0.000	0.000	1.000
Arm C	0.618	0.382	0.000

### Heavy Vehicles Percentages

**Demand Set:** AM Base

**Modelling Period:** 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0.0	0.0
Arm B	0.0	-	0.0
Arm C	0.0	0.0	-

**Demand Set:** PM Base

**Modelling Period:** 17:00-18:00

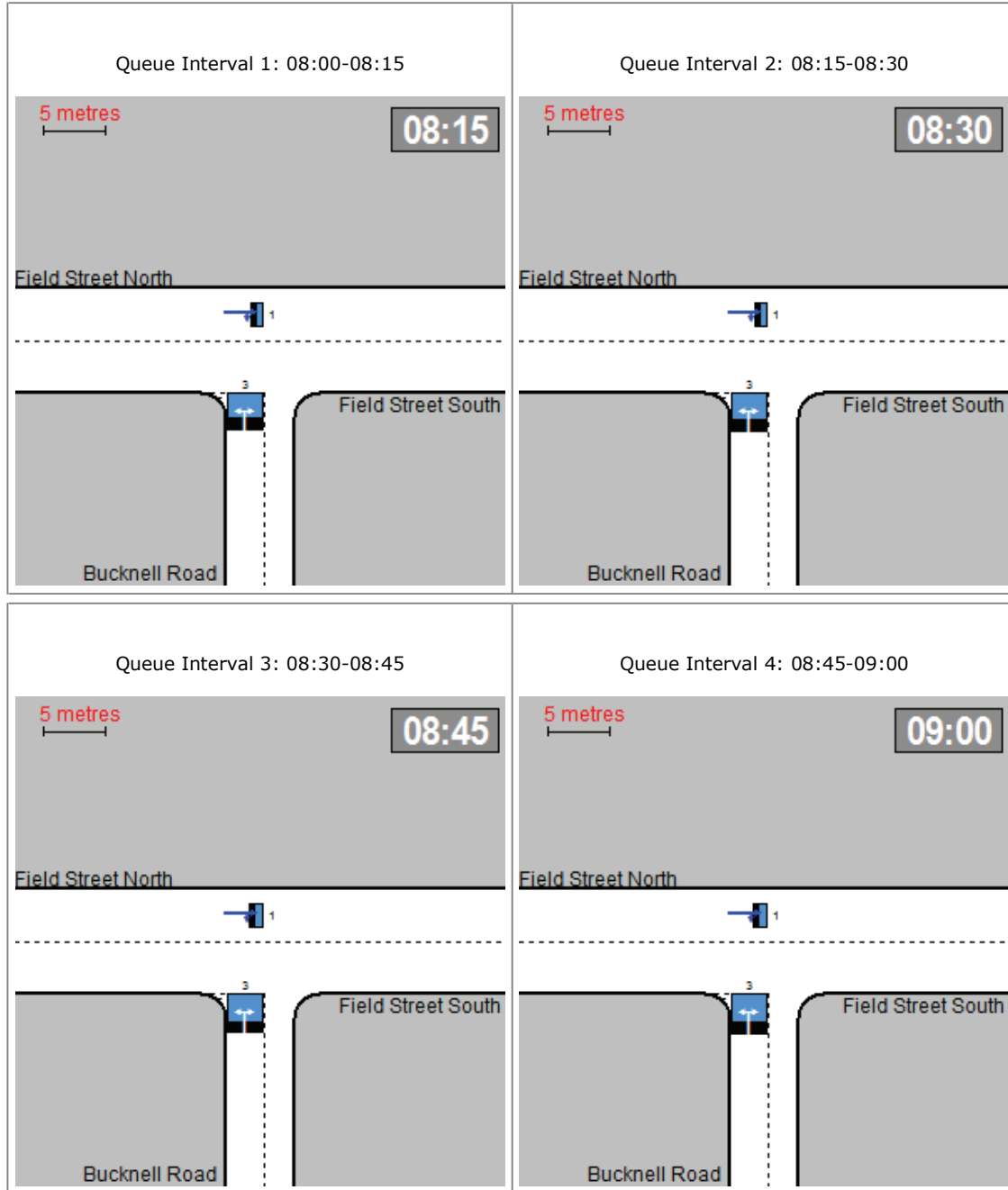
From/To	Arm A	Arm B	Arm C
Arm A	-	0.0	0.0
Arm B	0.0	-	0.0
Arm C	0.0	0.0	-

### Queue Diagrams

**Demand Set:** Sum of Demand Sets for Modelling Period: 08:00 - 09:00

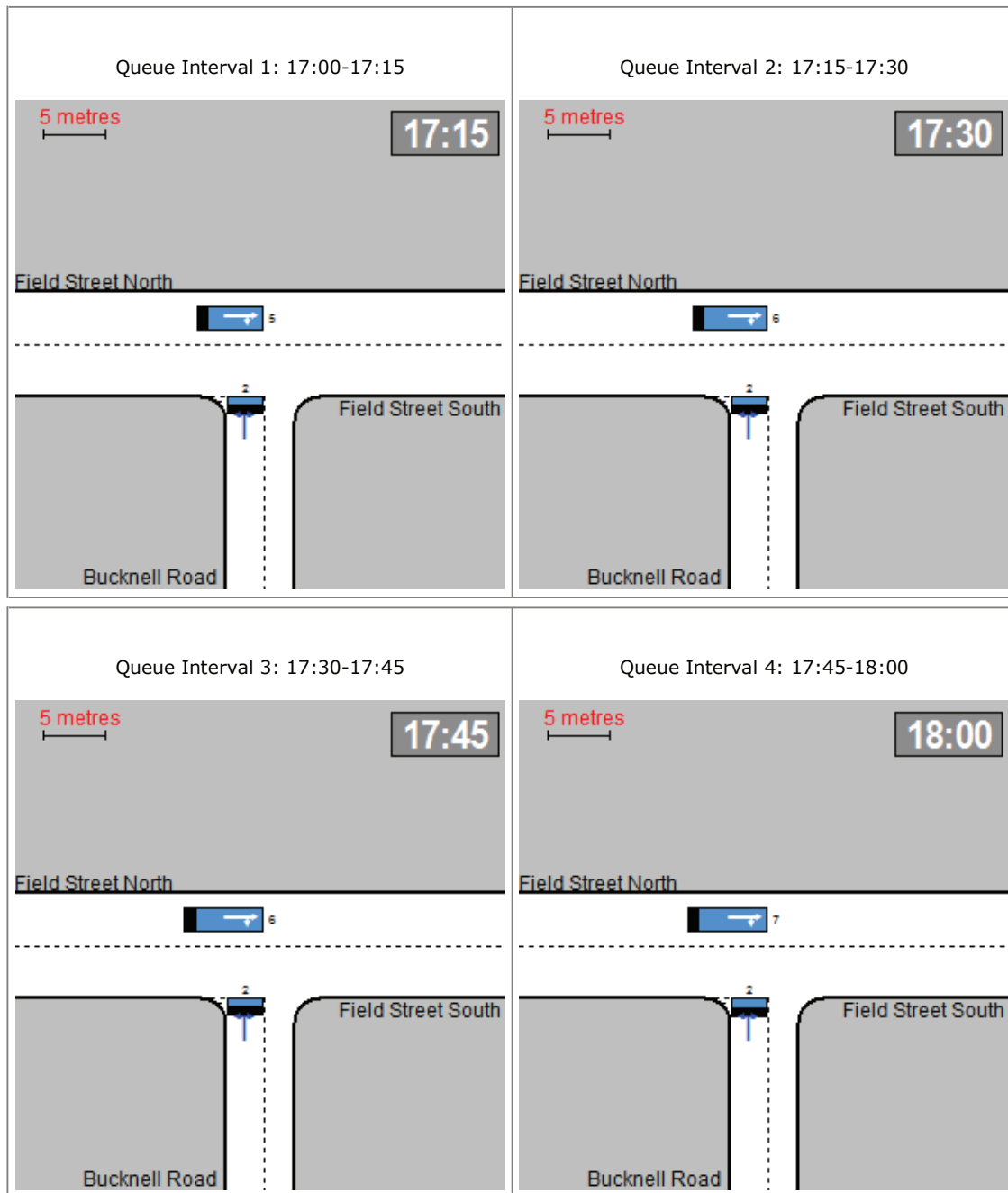
**Modelling Period:** 08:00-09:00

**View Extent:** 40m



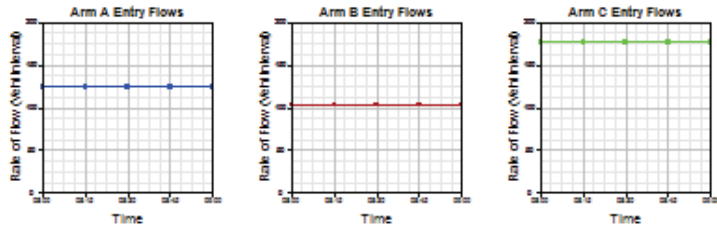


**Demand Set:** Sum of Demand Sets for Modelling Period: 17:00 - 18:00  
**Modelling Period:** 17:00-18:00  
**View Extent:** 40m

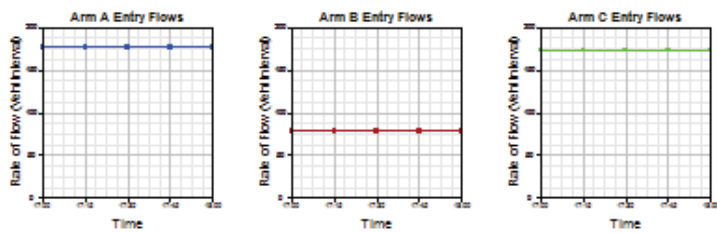


### Demand Data Graph

**Demand Set:** AM Base  
**Modelling Period:** 08:00-09:00

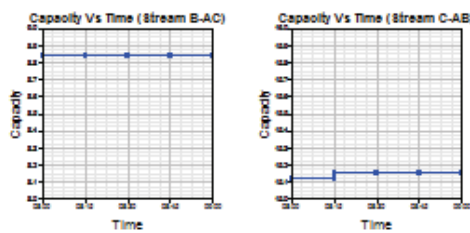


**Demand Set:** PM Base  
**Modelling Period:** 17:00-18:00

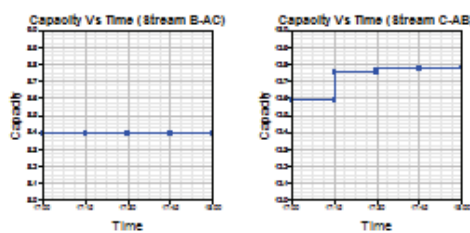


### Capacity Graph

**Demand Set:** Sum of Demand Sets for Modelling Period: 08:00 - 09:00  
**Modelling Period:** 08:00-09:00

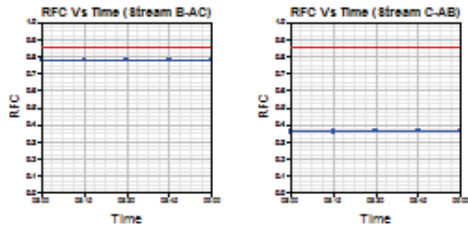


**Demand Set:** Sum of Demand Sets for Modelling Period: 17:00 - 18:00  
**Modelling Period:** 17:00-18:00

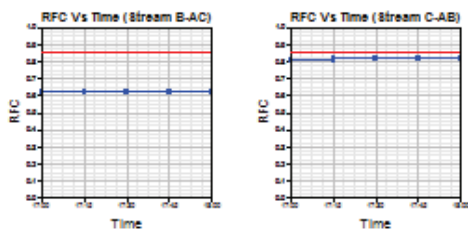


### RFC Graph

**Demand Set:** Sum of Demand Sets for Modelling Period: 08:00 - 09:00  
**Modelling Period:** 08:00-09:00

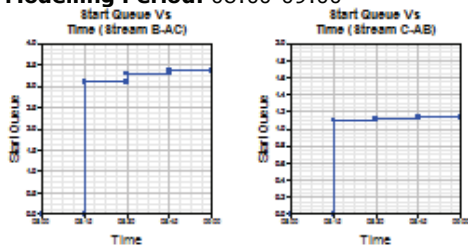


**Demand Set:** Sum of Demand Sets for Modelling Period: 17:00 - 18:00  
**Modelling Period:** 17:00-18:00

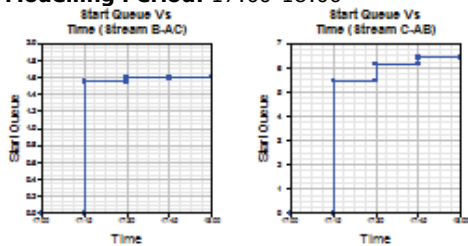


### Start Queue Graph

**Demand Set:** Sum of Demand Sets for Modelling Period: 08:00 - 09:00  
**Modelling Period:** 08:00-09:00



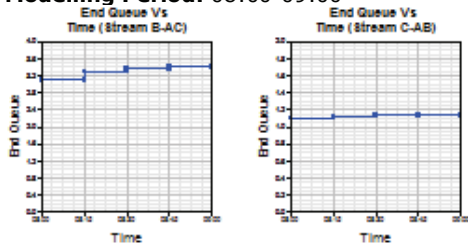
**Demand Set:** Sum of Demand Sets for Modelling Period: 17:00 - 18:00  
**Modelling Period:** 17:00-18:00



### End Queue Graph

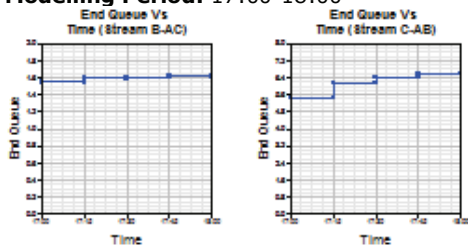
**Demand Set:** Sum of Demand Sets for Modelling Period: 08:00 - 09:00

**Modelling Period:** 08:00-09:00



**Demand Set:** Sum of Demand Sets for Modelling Period: 17:00 - 18:00

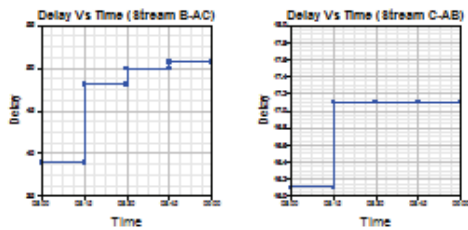
**Modelling Period:** 17:00-18:00



### Delay Graph

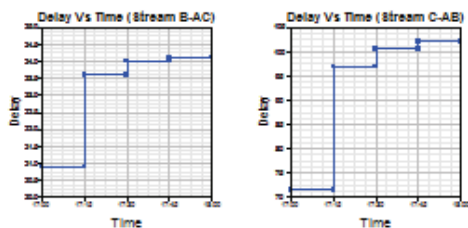
**Demand Set:** Sum of Demand Sets for Modelling Period: 08:00 - 09:00

**Modelling Period:** 08:00-09:00



**Demand Set:** Sum of Demand Sets for Modelling Period: 17:00 - 18:00

**Modelling Period:** 17:00-18:00



## Queues & Delays

**Demand Set:** Sum of Demand Sets for Modelling Period: 08:00 - 09:00

**Modelling Period:** 08:00-09:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-AC	6.88	8.84	0.779	-	0.00	3.09	-	38.9	0.43
	C-AB	5.43	15.12	0.359	-	0.00	1.10	-	16.1	0.10
	C-A	6.32	-	-	-	-	-	-	-	-
	A-B	1.33	-	-	-	-	-	-	-	-
	A-C	6.90	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-AC	6.88	8.84	0.779	-	3.09	3.28	-	48.1	0.50
	C-AB	5.48	15.15	0.362	-	1.10	1.12	-	17.1	0.10
	C-A	6.27	-	-	-	-	-	-	-	-
	A-B	1.33	-	-	-	-	-	-	-	-
	A-C	6.90	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-AC	6.88	8.84	0.779	-	3.28	3.36	-	49.9	0.51
	C-AB	5.48	15.15	0.362	-	1.12	1.13	-	17.1	0.10
	C-A	6.27	-	-	-	-	-	-	-	-
	A-B	1.33	-	-	-	-	-	-	-	-
	A-C	6.90	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-AC	6.88	8.84	0.779	-	3.36	3.40	-	50.7	0.51
	C-AB	5.48	15.15	0.362	-	1.13	1.13	-	17.1	0.10
	C-A	6.27	-	-	-	-	-	-	-	-
	A-B	1.33	-	-	-	-	-	-	-	-
	A-C	6.90	-	-	-	-	-	-	-	-

**Demand Set:** Sum of Demand Sets for Modelling Period: 17:00 - 18:00

**Modelling Period:** 17:00-18:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-AC	5.20	8.39	0.620	-	0.00	1.55	-	20.9	0.30
	C-AB	10.13	12.59	0.805	-	0.00	5.44	-	71.5	0.34
	C-A	1.42	-	-	-	-	-	-	-	-
	A-B	4.10	-	-	-	-	-	-	-	-
	A-C	7.63	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-AC	5.20	8.39	0.620	-	1.55	1.59	-	23.6	0.31
	C-AB	10.38	12.75	0.815	-	5.44	6.14	-	96.8	0.44
	C-A	1.17	-	-	-	-	-	-	-	-
	A-B	4.10	-	-	-	-	-	-	-	-
	A-C	7.63	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-AC	5.20	8.39	0.620	-	1.59	1.60	-	24.0	0.31
	C-AB	10.41	12.77	0.816	-	6.14	6.41	-	100.5	0.46
	C-A	1.14	-	-	-	-	-	-	-	-
	A-B	4.10	-	-	-	-	-	-	-	-
	A-C	7.63	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-AC	5.20	8.39	0.620	-	1.60	1.61	-	24.1	0.31
	C-AB	10.42	12.78	0.816	-	6.41	6.56	-	102.0	0.46
	C-A	1.13	-	-	-	-	-	-	-	-
	A-B	4.10	-	-	-	-	-	-	-	-
	A-C	7.63	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.

In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.

Delays marked with '###' could not be calculated.

## Overall Queues & Delays

### Queueing Delay Information Over Whole Period

**Demand Set:** Sum of Demand Sets for Modelling Period: 08:00 - 09:00

**Modelling Period:** 08:00-09:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	413.0	413.0	187.5	0.5	188.1	0.5
C-AB	327.9	327.9	67.3	0.2	67.4	0.2
C-A	377.1	377.1	-	-	-	-
A-B	80.0	80.0	-	-	-	-
A-C	414.0	414.0	-	-	-	-
<b>All</b>	<b>1612.0</b>	<b>1612.0</b>	<b>254.8</b>	<b>0.2</b>	<b>255.5</b>	<b>0.2</b>

**Demand Set:** Sum of Demand Sets for Modelling Period: 17:00 - 18:00

**Modelling Period:** 17:00-18:00


Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	312.0	312.0	92.5	0.3	92.7	0.3
C-AB	620.3	620.3	370.9	0.6	372.6	0.6
C-A	72.7	72.7	-	-	-	-
A-B	246.0	246.0	-	-	-	-
A-C	458.0	458.0	-	-	-	-
<b>All</b>	<b>1709.0</b>	<b>1709.0</b>	<b>463.5</b>	<b>0.3</b>	<b>465.3</b>	<b>0.3</b>

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles which are still queuing after the end of the time period.

These will only be significantly different if there is a large queue remaining at the end of the time period.

### PICADY 5 Run Successful

<b>ARCADY 6</b>		
GUI Version: 6.2 AG Analysis Program: Release 7.0 (FEBRUARY 2010) (c) Copyright TRL Limited, 2004 Adapted from ARCADY/3 which is Crown Copyright by permission of the controller of HMSO For sales and distribution information, program advice and maintenance, contact:		
TRL Limited Crowthorne House Nine Mile Ride Wokingham, Berks. RG40 3GA, UK		Tel: +44 (0)1344 770758 Fax: +44 (0)1344 770864 Email: software@trl.co.uk Web: www.trlsoftware.co.uk
The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution		

## Run Information

Run with file:- c:\Users\afa00534\Documents\MODELLING\13\J13 AM.vai  
 At: 15:11:07 on Wednesday, July 30, 2014  
 Mode: Drive On The Left  
 Units: Metric

## Arm Labelling

Arm	Full Arm Names
Arm A	A4421 Skimmingdish Lane
Arm B	Buckingham Road
Arm C	A4095 West
Arm D	A4421 North

## Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

## File Properties

<b>Run Title</b>	A4421 Skimmingdish Lane_Buckingham Road J13
<b>Location</b>	Bicester
<b>Date</b>	05/06/2014
<b>Client</b>	
<b>Enumerator</b>	fda76470 [HCL51987]
<b>Job Number</b>	
<b>Status</b>	
<b>Description</b>	



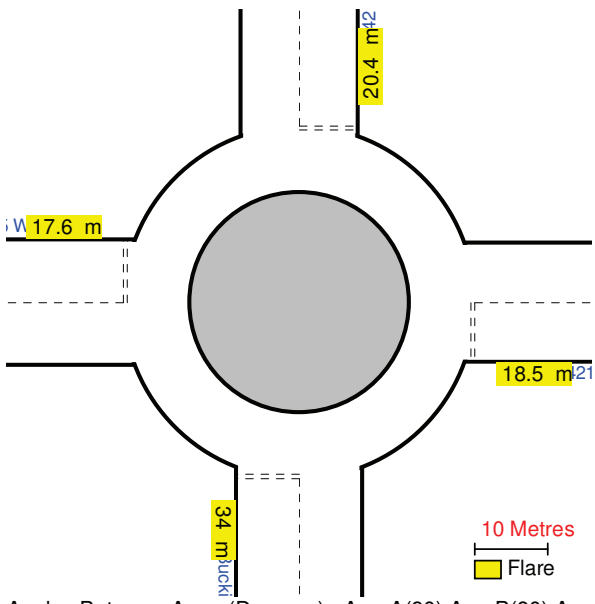
## Errors and Warnings

**\*\*WARNING\*\*** ARM B Effective flare length is outside normal range.  
Treat capacities with increasing caution.

## Geometric Data

<b>Data Item</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>	<b>Arm D</b>
Approach Road Half-Width (m)	3.00	3.20	3.10	3.00
Entry Width (m)	8.15	8.60	8.50	8.00
Flare Length (m)	18.50	34.00	17.60	20.40
Entry Radius (m)	16.50	18.50	23.00	44.00
Inscribed Circle Diameter (m)	49.00	49.00	49.00	49.00
Entry Angle (degrees)	38.00	38.00	38.00	24.00
Slope	0.596	0.659	0.612	0.654
Intercept (PCU/Min)	27.802	33.154	28.786	30.693

**Junction Diagram: (View Extent = 80m)**



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

**Demand Data**

Demand Profiles are Synthesised using **DIRECT** Data  
 Period of interest (for Queue and Delay calculations): **08:00 to 09:00**  
 Length of Time Period: **60 min**  
 Length of Time Segment: **15 min**

**Direct Data for Demand Set: AM Base**

Time Period	Arm	Demand Data (Veh/Min)
<b>Segment : 1 - 08:00 to 08:15</b>	A	8.25
	B	5.50
	C	19.20
	D	11.47
<b>Segment : 2 - 08:15 to 08:30</b>	A	8.25
	B	5.50
	C	19.20
	D	11.47
<b>Segment : 3 - 08:30 to 08:45</b>	A	8.25
	B	5.50
	C	19.20
	D	11.47
<b>Segment : 4 - 08:45 to 09:00</b>	A	8.25
	B	5.50
	C	19.20
	D	11.47

### Turning Proportions for Demand Set: AM Base

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
08:00 to 09:00	Arm A	0.000	0.006	0.701	0.293
		0.0	3.0	347.0	145.0
	Arm B	0.091	0.000	0.358	0.552
		30.0	0.0	118.0	182.0
	Arm C	0.677	0.054	0.000	0.269
		780.0	62.0	0.0	310.0
	Arm D	0.241	0.468	0.291	0.000
		166.0	322.0	200.0	0.0

### Heavy Vehicle Percentages for Demand Set: AM Base

Vehicle percentages constant over time and entry

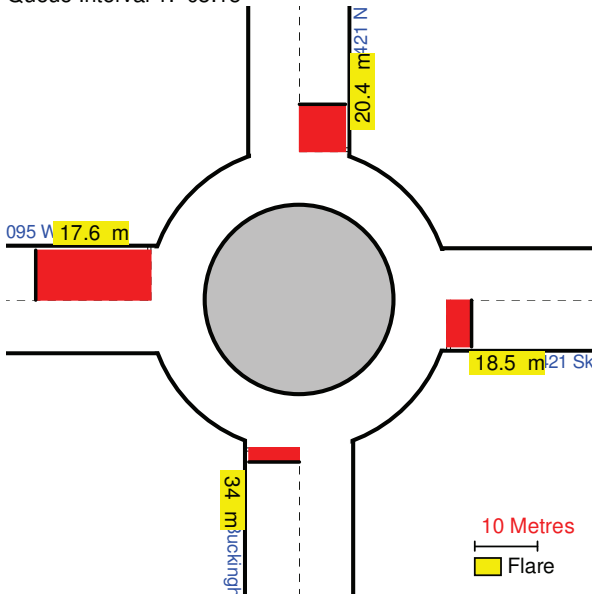
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
08:00 to 09:00	Arm A	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0

### Queue Diagrams: (View Extent = 80m)

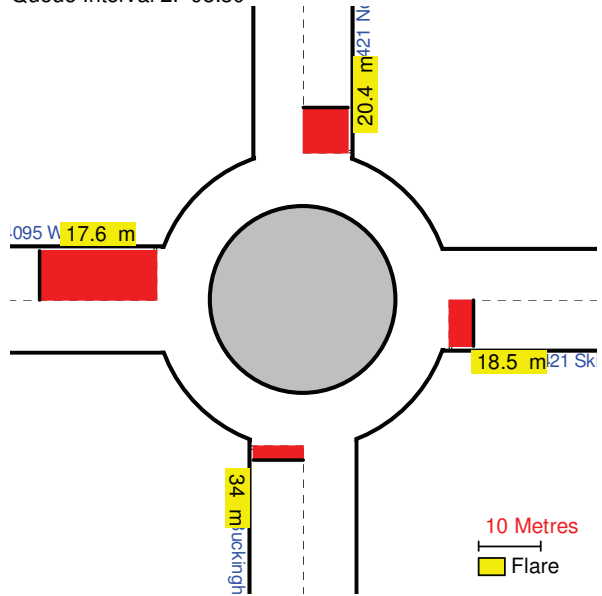
Queue Length	Colour
Mean Queue	Red
5 th % ile	Light Red
90 th % ile	Lighter Red
95 th % ile	Very Light Red

Start Time: 08:00---> End Time: 09:00

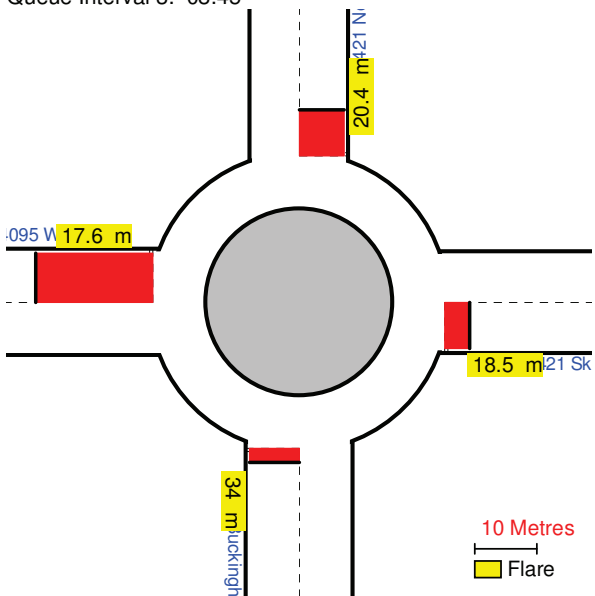
Queue Interval 1: 08:15



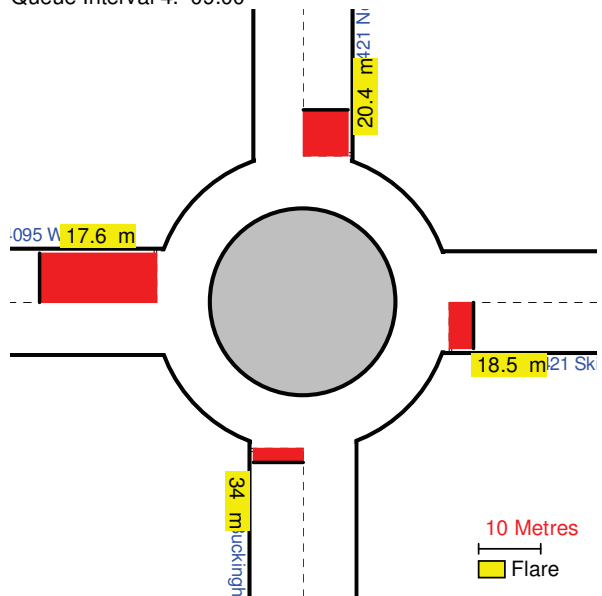
Queue Interval 2: 08:30



Queue Interval 3: 08:45

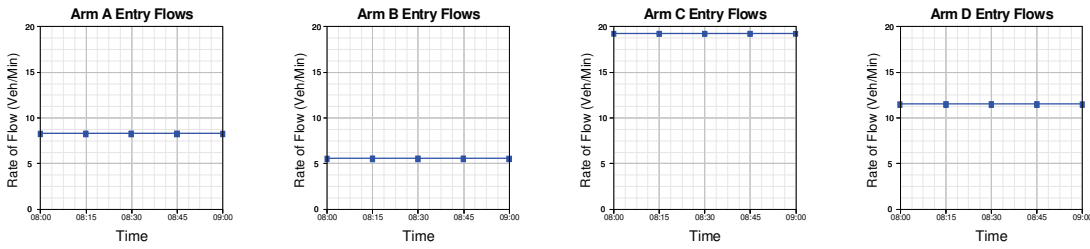


Queue Interval 4: 09:00



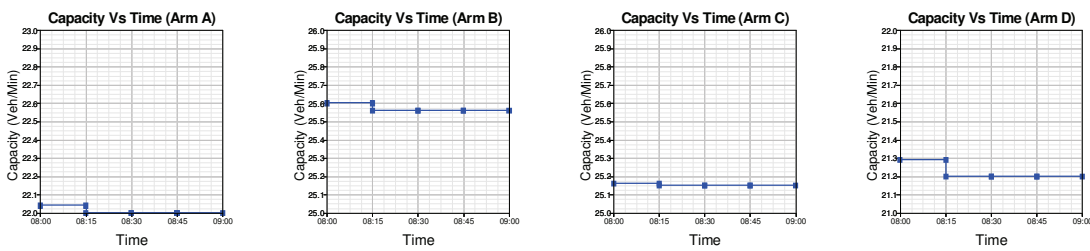
## Demand Data Graphs

### Direct Entry/Exit Flows for Demand Set: AM Base



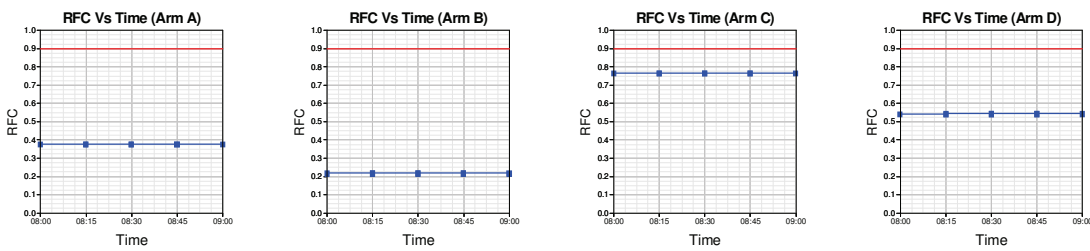
### Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



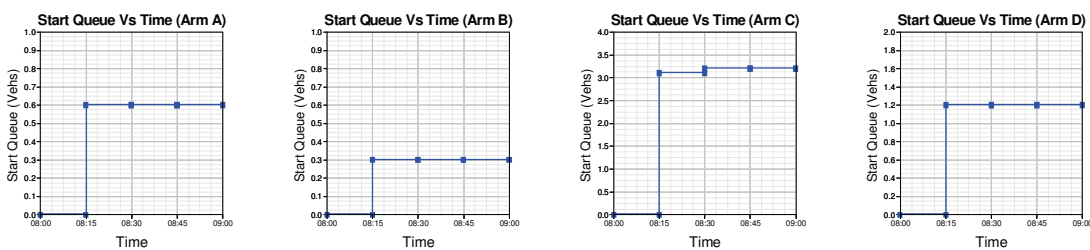
### RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



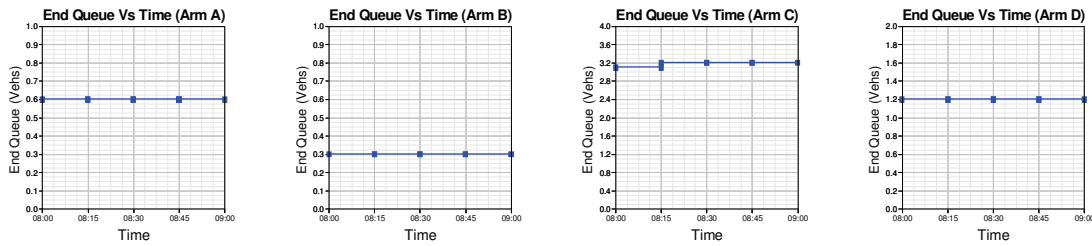
### Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



## End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)

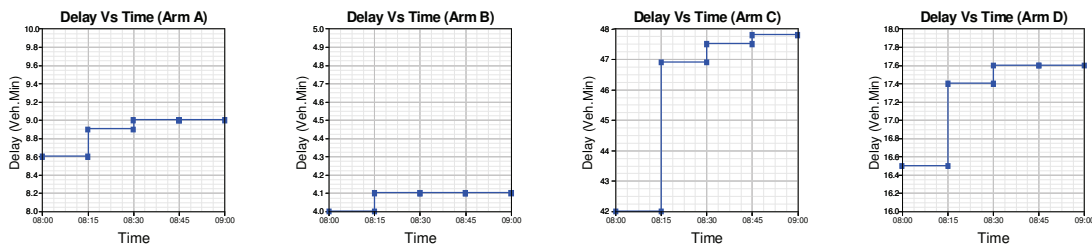


## Geometric Delay Graph

No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

## Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



## Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
<b>Segment : 1 - 08:00 to 08:15</b>	A	8.25	22.04	0.374	-	0.0	0.6	8.6	-	0.072
	B	5.50	25.60	0.215	-	0.0	0.3	4.0	-	0.050
	C	19.20	25.16	0.763	-	0.0	3.1	42.0	-	0.157
	D	11.47	21.29	0.539	-	0.0	1.2	16.5	-	0.100
<b>Segment : 2 - 08:15 to 08:30</b>	A	8.25	22.00	0.375	-	0.6	0.6	8.9	-	0.073
	B	5.50	25.56	0.215	-	0.3	0.3	4.1	-	0.050
	C	19.20	25.15	0.764	-	3.1	3.2	46.9	-	0.168
	D	11.47	21.20	0.541	-	1.2	1.2	17.4	-	0.103
<b>Segment : 3 - 08:30 to 08:45</b>	A	8.25	22.00	0.375	-	0.6	0.6	9.0	-	0.073
	B	5.50	25.56	0.215	-	0.3	0.3	4.1	-	0.050
	C	19.20	25.15	0.764	-	3.2	3.2	47.5	-	0.168
	D	11.47	21.20	0.541	-	1.2	1.2	17.6	-	0.103
<b>Segment : 4 - 08:45 to 09:00</b>	A	8.25	22.00	0.375	-	0.6	0.6	9.0	-	0.073
	B	5.50	25.56	0.215	-	0.3	0.3	4.1	-	0.050
	C	19.20	25.15	0.764	-	3.2	3.2	47.8	-	0.168
	D	11.47	21.20	0.541	-	1.2	1.2	17.6	-	0.103

## Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
<b>A</b>	495.0	495.0	35.5	0.07	35.5	0.07
<b>B</b>	330.0	330.0	16.3	0.05	16.3	0.05
<b>C</b>	1152.0	1152.0	184.2	0.16	184.4	0.16
<b>D</b>	688.2	688.2	69.1	0.10	69.1	0.10
<b>ALL</b>	2665.2	2665.2	305.2	0.11	305.4	0.11

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.


These will only be significantly different if there is a large queue remaining at the end of the time period.

## Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

## Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

<b>ARCADY 6</b>		
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The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution		

## Run Information

Run with file:- c:\Users\afa00534\Documents\MODELLING\13\J13 PM.vai  
 At: 15:12:19 on Wednesday, July 30, 2014  
 Mode: Drive On The Left  
 Units: Metric

## Arm Labelling

Arm	Full Arm Names
Arm A	A4421 Skimmingdish Lane
Arm B	Buckingham Road
Arm C	A4095 West
Arm D	A4421 North

## Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

## File Properties

<b>Run Title</b>	A4421 Skimmingdish Lane_Buckingham Road
<b>Location</b>	Bicester
<b>Date</b>	05/06/2014
<b>Client</b>	
<b>Enumerator</b>	fda76470 [HCL51987]
<b>Job Number</b>	
<b>Status</b>	
<b>Description</b>	



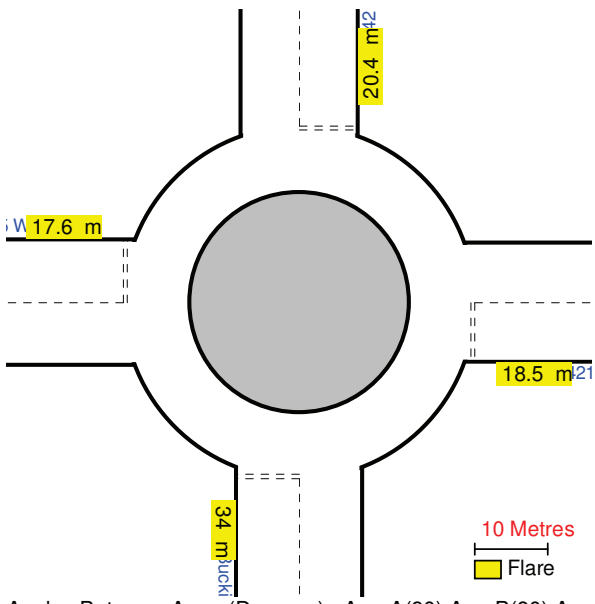
## Errors and Warnings

**\*\*WARNING\*\*** ARM B Effective flare length is outside normal range.  
Treat capacities with increasing caution.

## Geometric Data

<b>Data Item</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>	<b>Arm D</b>
Approach Road Half-Width (m)	3.00	3.20	3.10	3.00
Entry Width (m)	8.15	8.60	8.50	8.00
Flare Length (m)	18.50	34.00	17.60	20.40
Entry Radius (m)	16.50	18.50	23.00	44.00
Inscribed Circle Diameter (m)	49.00	49.00	49.00	49.00
Entry Angle (degrees)	38.00	38.00	38.00	24.00
Slope	0.596	0.659	0.612	0.654
Intercept (PCU/Min)	27.802	33.154	28.786	30.693

**Junction Diagram: (View Extent = 80m)**



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

**Demand Data**

Demand Profiles are Synthesised using **DIRECT** Data  
 Period of interest (for Queue and Delay calculations): **17:00 to 18:00**  
 Length of Time Period: **60 min**  
 Length of Time Segment: **15 min**

**Direct Data for Demand Set: PM Base**

Time Period	Arm	Demand Data (Veh/Min)
<b>Segment : 1 - 17:00 to 17:15</b>	A	17.77
	B	7.68
	C	8.03
	D	12.32
<b>Segment : 2 - 17:15 to 17:30</b>	A	17.77
	B	7.68
	C	8.03
	D	12.32
<b>Segment : 3 - 17:30 to 17:45</b>	A	17.77
	B	7.68
	C	8.03
	D	12.32
<b>Segment : 4 - 17:45 to 18:00</b>	A	17.77
	B	7.68
	C	8.03
	D	12.32

### Turning Proportions for Demand Set: PM Base

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
17:00 to 18:00	Arm A	0.000	0.021	0.705	0.274
		0.0	22.0	752.0	292.0
	Arm B	0.323	0.000	0.508	0.169
		149.0	0.0	234.0	78.0
	Arm C	0.517	0.118	0.000	0.365
		249.0	57.0	0.0	176.0
	Arm D	0.303	0.410	0.287	0.000
		224.0	303.0	212.0	0.0

### Heavy Vehicle Percentages for Demand Set: PM Base

Vehicle percentages constant over time and entry

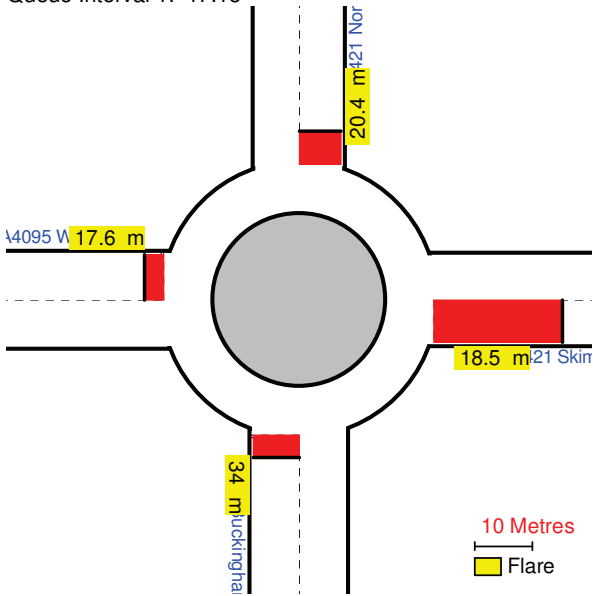
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
17:00 to 18:00	Arm A	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0

### Queue Diagrams: (View Extent = 80m)

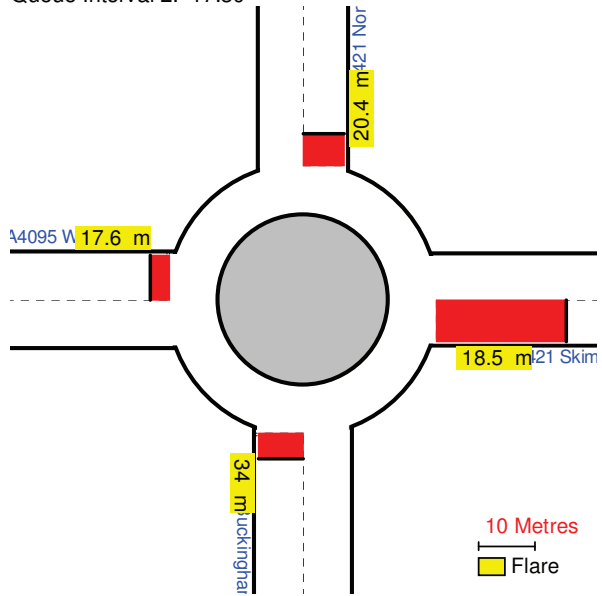
Queue Length	Colour
Mean Queue	Red
5 th % ile	Light Red
90 th % ile	Light Pink
95 th % ile	Very Light Pink

Start Time: 17:00---> End Time: 18:00

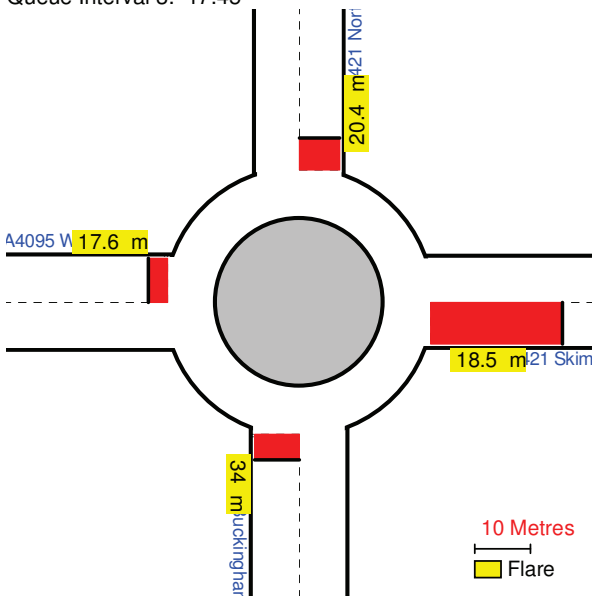
Queue Interval 1: 17:15



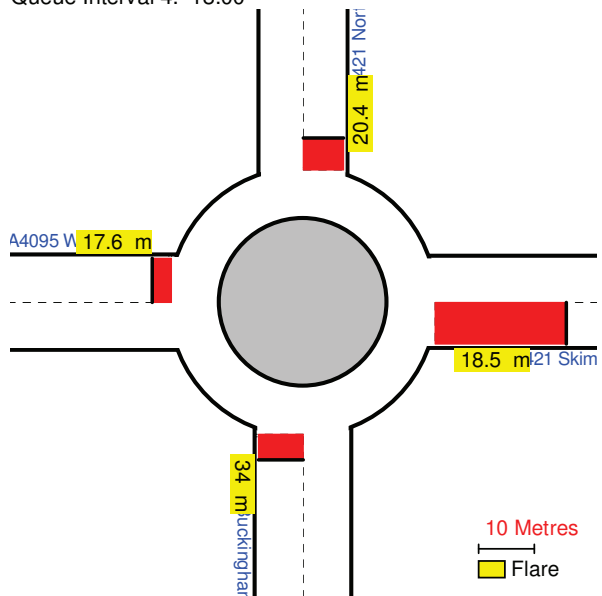
Queue Interval 2: 17:30



Queue Interval 3: 17:45

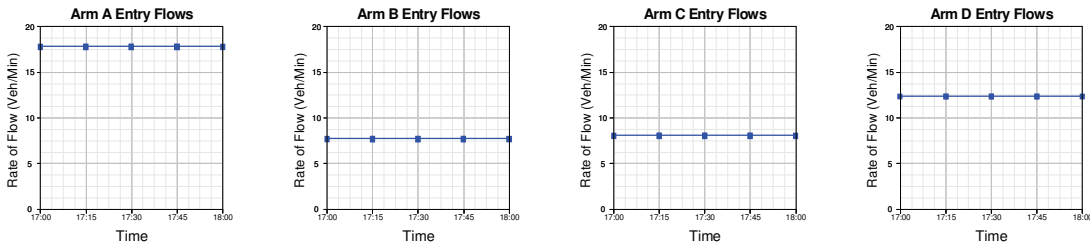


Queue Interval 4: 18:00



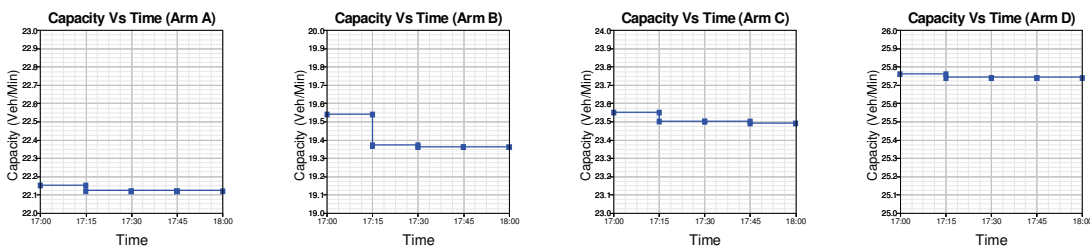
## Demand Data Graphs

### Direct Entry/Exit Flows for Demand Set: PM Base



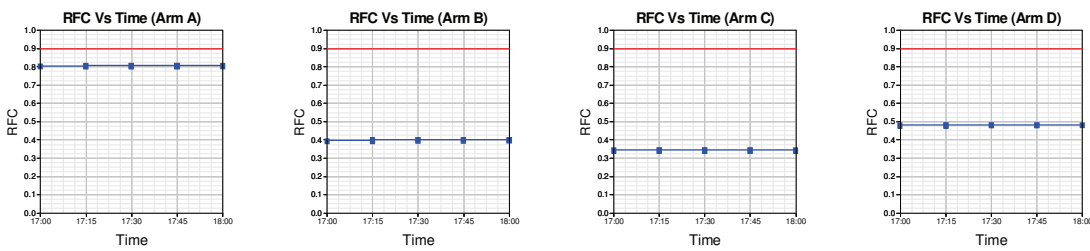
### Capacity (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



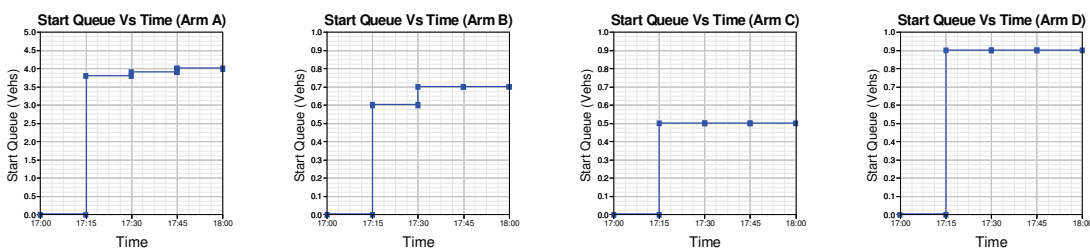
### RFC (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



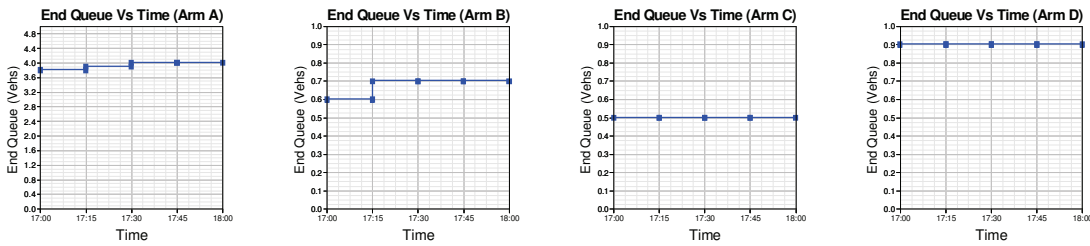
### Start Queue (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



## End Queue (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)

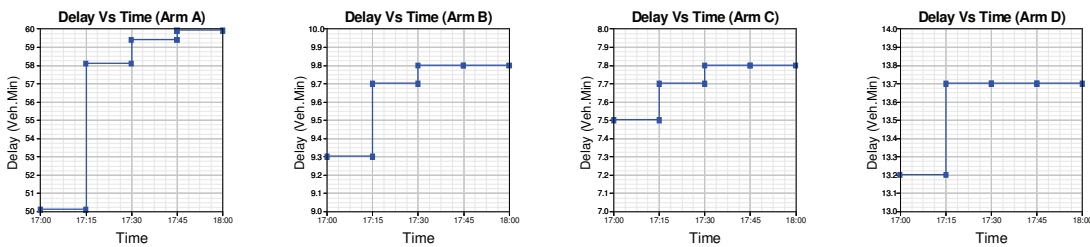


## Geometric Delay Graph

No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

## Delay (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



## Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
<b>Segment : 1 - 17:00 to 17:15</b>	A	17.77	22.15	0.802	-	0.0	3.8	50.1	-	0.206
	B	7.68	19.54	0.393	-	0.0	0.6	9.3	-	0.084
	C	8.03	23.55	0.341	-	0.0	0.5	7.5	-	0.064
	D	12.32	25.76	0.478	-	0.0	0.9	13.2	-	0.074
<b>Segment : 2 - 17:15 to 17:30</b>	A	17.77	22.12	0.803	-	3.8	3.9	58.1	-	0.228
	B	7.68	19.37	0.397	-	0.6	0.7	9.7	-	0.086
	C	8.03	23.50	0.342	-	0.5	0.5	7.7	-	0.065
	D	12.32	25.74	0.479	-	0.9	0.9	13.7	-	0.075
<b>Segment : 3 - 17:30 to 17:45</b>	A	17.77	22.12	0.803	-	3.9	4.0	59.4	-	0.228
	B	7.68	19.36	0.397	-	0.7	0.7	9.8	-	0.086
	C	8.03	23.50	0.342	-	0.5	0.5	7.8	-	0.065
	D	12.32	25.74	0.479	-	0.9	0.9	13.7	-	0.075
<b>Segment : 4 - 17:45 to 18:00</b>	A	17.77	22.12	0.803	-	4.0	4.0	59.9	-	0.229
	B	7.68	19.36	0.397	-	0.7	0.7	9.8	-	0.086
	C	8.03	23.49	0.342	-	0.5	0.5	7.8	-	0.065
	D	12.32	25.74	0.479	-	0.9	0.9	13.7	-	0.075

## Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
<b>A</b>	1066.2	1066.2	227.5	0.21	227.8	0.21
<b>B</b>	460.8	460.8	38.7	0.08	38.7	0.08
<b>C</b>	481.8	481.8	30.8	0.06	30.8	0.06
<b>D</b>	739.2	739.2	54.3	0.07	54.3	0.07
<b>ALL</b>	2748.0	2748.0	351.2	0.13	351.6	0.13

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.


These will only be significantly different if there is a large queue remaining at the end of the time period.

## Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

## Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

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## Run Information

Run with file:- k:\UA005241 - Bicester Traffic Modelling\D-Calcs\Traffic Modelling\J14\UPDATED\NEW\AM Peak with flares unequal west lane usage v1.vai

At: 16:33:18 on Wednesday, July 30, 2014

Mode: Drive On The Left

Units: Metric

## Arm Labelling

Arm	Full Arm Names
Arm A	B4100
Arm B	A4095 (east)
Arm C	Banbury Road
Arm D	A4095 (west) left
Arm E	A4095 (west) ahead right

## Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100
Arm E	100

## File Properties

<b>Run Title</b>	A4095/ Banbury Road Base (J14)
<b>Location</b>	Bicester
<b>Date</b>	21/02/2014
<b>Client</b>	
<b>Enumerator</b>	afa00534 [HCL51938]
<b>Job Number</b>	
<b>Status</b>	Preliminary
<b>Description</b>	



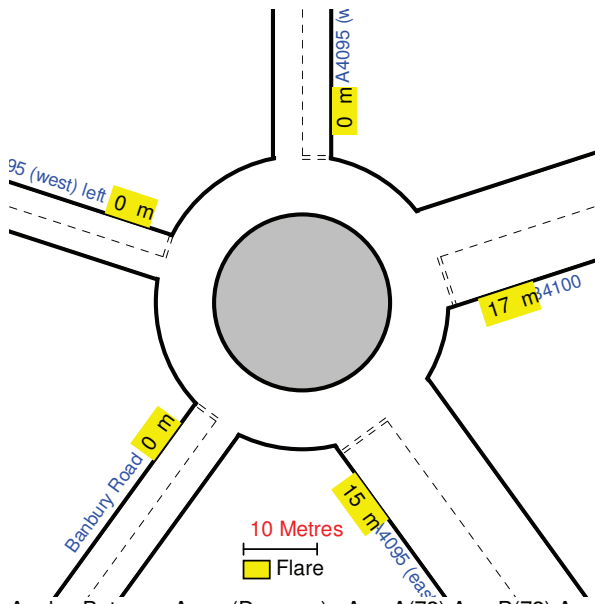
## Errors and Warnings

[No errors or warnings]

## Geometric Data

<b>Data Item</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>	<b>Arm D</b>	<b>Arm E</b>
Approach Road Half-Width (m)	3.60	3.70	3.65	3.20	4.00
Entry Width (m)	7.00	7.80	3.65	3.20	4.00
Flare Length (m)	17.00	15.00	0.00	0.00	0.00
Entry Radius (m)	34.00	18.00	20.00	24.00	24.00
Inscribed Circle Diameter (m)	40.00	40.00	40.00	40.00	40.00
Entry Angle (degrees)	20.00	27.00	30.00	30.00	30.00
Slope	0.681	0.662	0.523	0.500	0.549
Intercept (PCU/Min)	30.221	29.878	18.433	16.292	20.365

### Junction Diagram: (View Extent = 80m)



Angles Between Arms (Degrees): Arm A(72) Arm B(72) Arm C(72) Arm D(72) Arm E(72)

### Demand Data

Demand Profiles are Synthesised using **DIRECT** Data  
 Period of interest (for Queue and Delay calculations): **08:00 to 09:00**  
 Length of Time Period: **60 min**  
 Length of Time Segment: **15 min**

### Direct Data for Demand Set: AM Peak Base

Time Period	Arm	Demand Data (Veh/Min)
<b>Segment : 1 - 08:00 to 08:15</b>	A	10.55
	B	12.18
	C	4.38
	D	1.20
	E	9.75
<b>Segment : 2 - 08:15 to 08:30</b>	A	10.55
	B	12.18
	C	4.38
	D	1.20
	E	9.75
<b>Segment : 3 - 08:30 to 08:45</b>	A	10.55
	B	12.18
	C	4.38
	D	1.20
	E	9.75
<b>Segment : 4 - 08:45 to 09:00</b>	A	10.55
	B	12.18
	C	4.38
	D	1.20
	E	9.75

**Turning Proportions for Demand Set: AM Peak Base**

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
08:00 to 09:00	Arm A	0.000	0.712	0.199	0.088	0.000
		0.0	451.0	126.0	56.0	0.0
	Arm B	0.475	0.001	0.062	0.462	0.000
		347.0	1.0	45.0	338.0	0.0
	Arm C	0.251	0.529	0.000	0.221	0.000
		66.0	139.0	0.0	58.0	0.0
	Arm D	0.000	0.000	0.000	0.000	1.000
		0.0	0.0	0.0	0.0	72.0
	Arm E	0.000	0.962	0.038	0.000	0.000
		0.0	563.0	22.0	0.0	0.0

**Heavy Vehicle Percentages for Demand Set: AM Peak Base**

Vary over entry

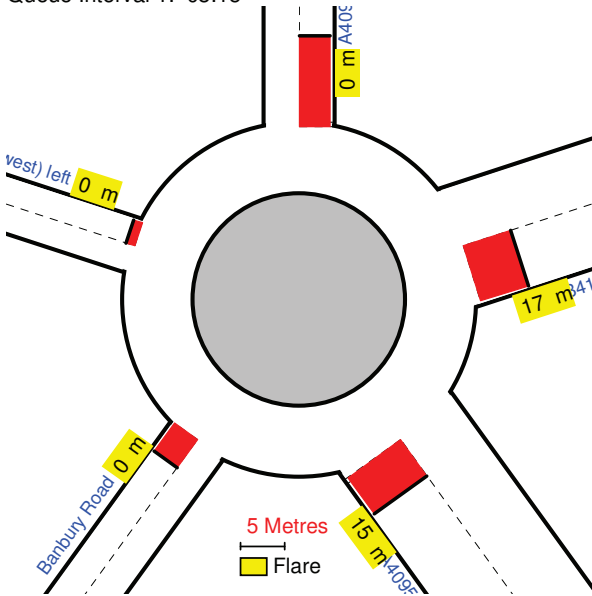
Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
08:00 to 09:00	Arm A	0.0	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0	0.0
	Arm E	0.0	0.0	0.0	0.0	0.0

### Queue Diagrams: (View Extent = 80m)

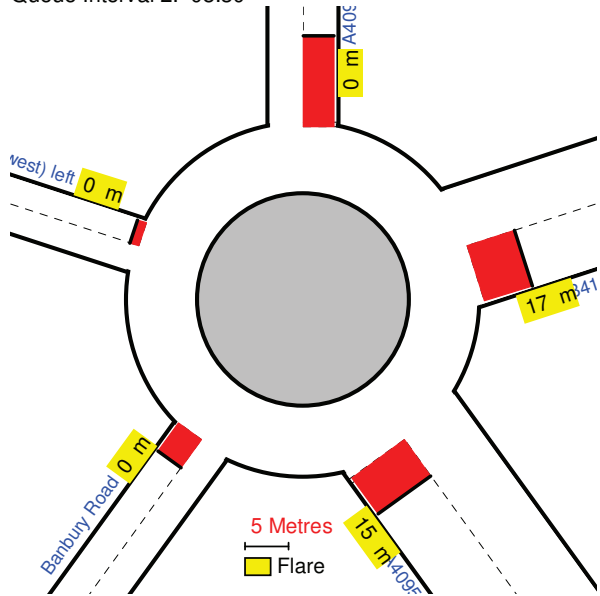
Queue Length	Colour
Mean Queue	Red
5 th % ile	Light Red
90 th % ile	Very Light Red
95 th % ile	Lightest Red

Start Time: 08:00---> End Time: 09:00

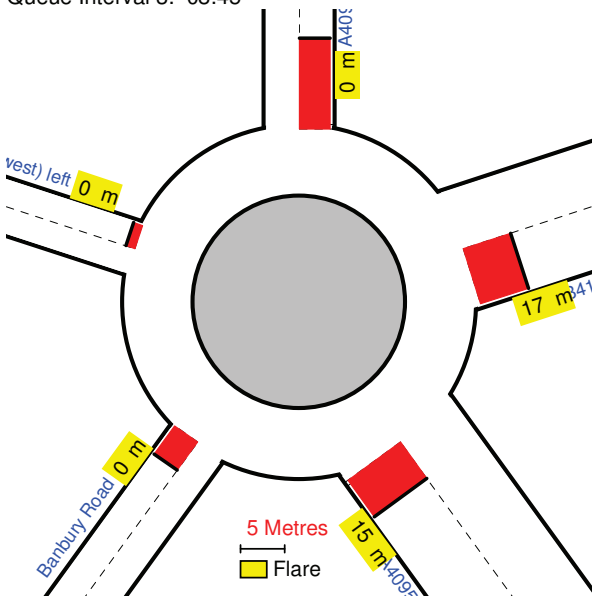
Queue Interval 1: 08:15



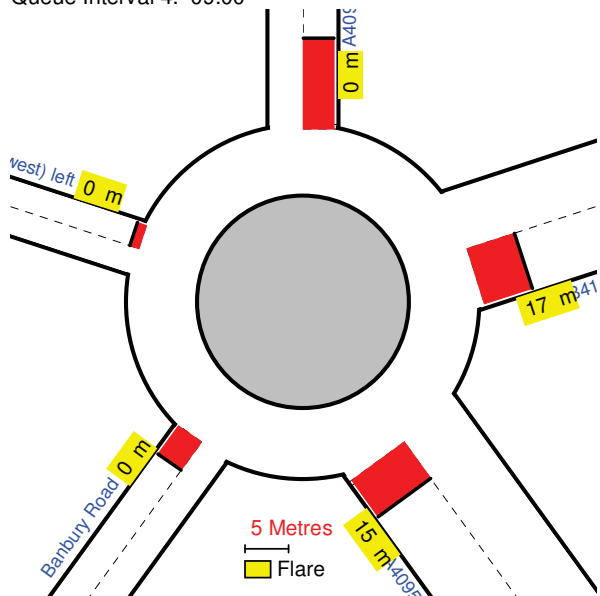
Queue Interval 2: 08:30



Queue Interval 3: 08:45

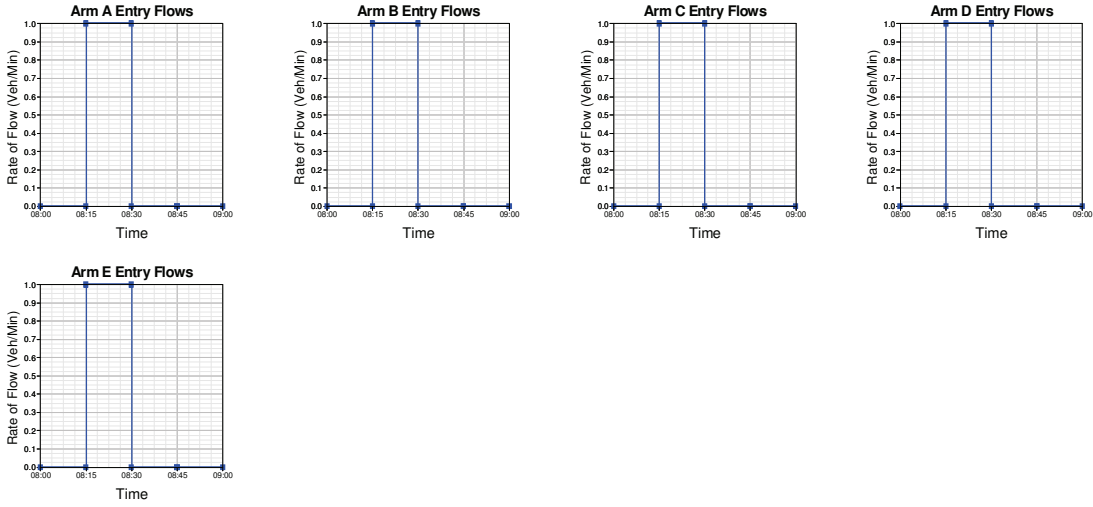


Queue Interval 4: 09:00



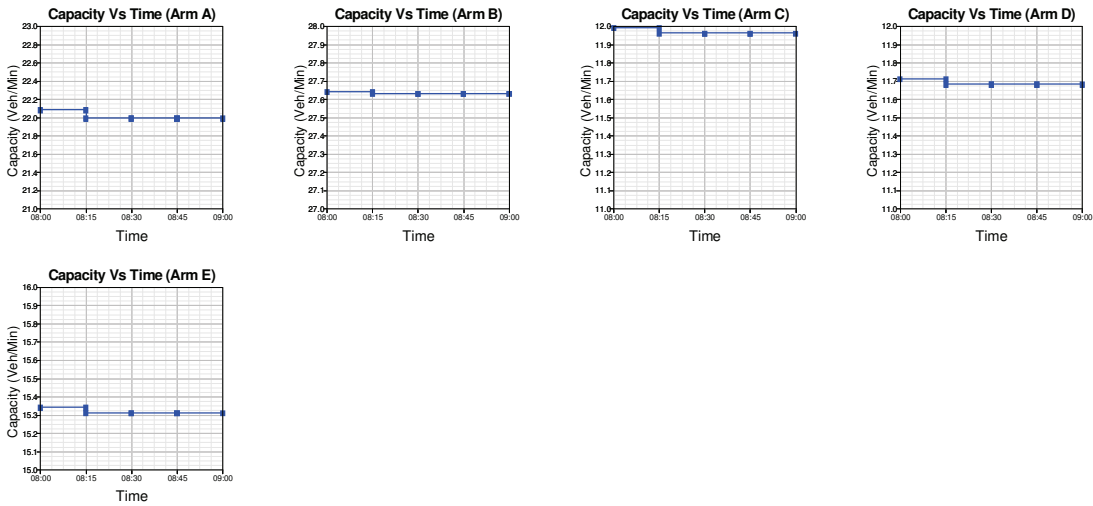
## Demand Data Graphs

### Direct Entry/Exit Flows for Demand Set: AM Peak Base



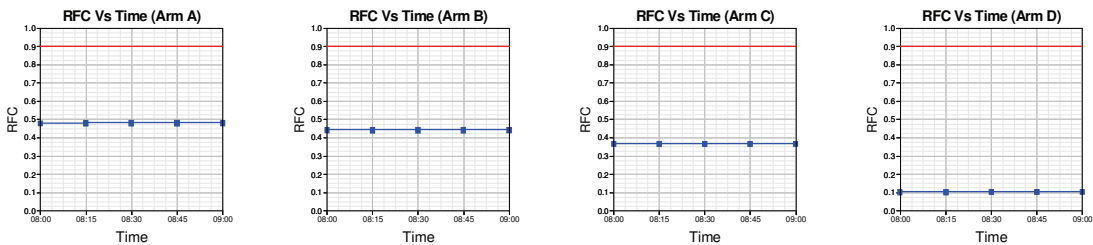
### Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

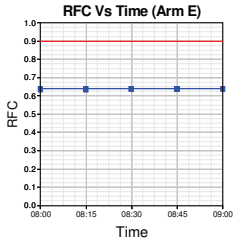
(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

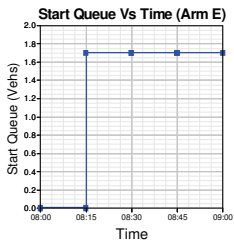
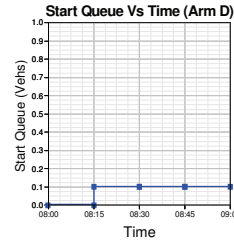
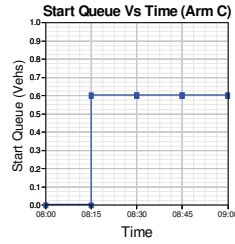
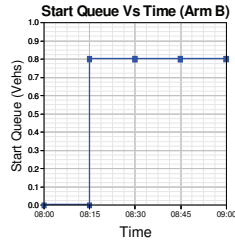
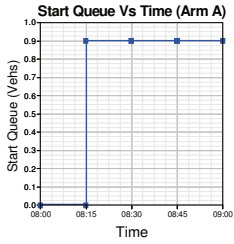
(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)





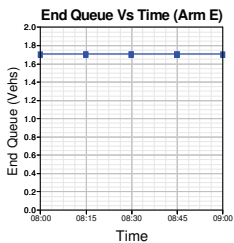
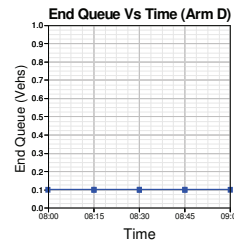
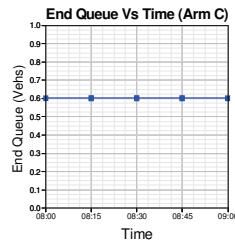
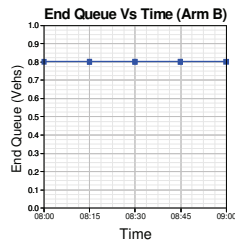
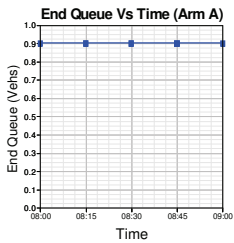
### Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)

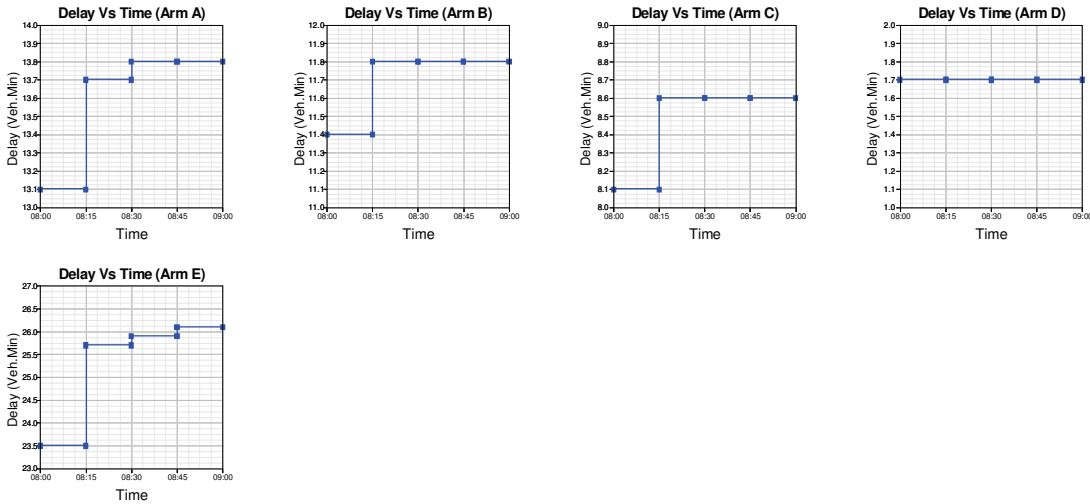


## Geometric Delay Graph

No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

## Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



## Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 08:00 to 08:15	A	10.55	22.08	0.478	-	0.0	0.9	13.1	-	0.086
	B	12.18	27.64	0.441	-	0.0	0.8	11.4	-	0.064
	C	4.38	11.99	0.365	-	0.0	0.6	8.1	-	0.130
	D	1.20	11.71	0.102	-	0.0	0.1	1.7	-	0.095
	E	9.75	15.34	0.636	-	0.0	1.7	23.5	-	0.172
Segment : 2 - 08:15 to 08:30	A	10.55	21.99	0.480	-	0.9	0.9	13.7	-	0.087
	B	12.18	27.63	0.441	-	0.8	0.8	11.8	-	0.065
	C	4.38	11.96	0.366	-	0.6	0.6	8.6	-	0.132
	D	1.20	11.68	0.103	-	0.1	0.1	1.7	-	0.095
	E	9.75	15.31	0.637	-	1.7	1.7	25.7	-	0.180
Segment : 3 - 08:30 to 08:45	A	10.55	21.99	0.480	-	0.9	0.9	13.8	-	0.087
	B	12.18	27.63	0.441	-	0.8	0.8	11.8	-	0.065
	C	4.38	11.96	0.366	-	0.6	0.6	8.6	-	0.132
	D	1.20	11.68	0.103	-	0.1	0.1	1.7	-	0.095
	E	9.75	15.31	0.637	-	1.7	1.7	25.9	-	0.180
Segment : 4 - 08:45 to 09:00	A	10.55	21.99	0.480	-	0.9	0.9	13.8	-	0.087
	B	12.18	27.63	0.441	-	0.8	0.8	11.8	-	0.065
	C	4.38	11.96	0.366	-	0.6	0.6	8.6	-	0.132
	D	1.20	11.68	0.103	-	0.1	0.1	1.7	-	0.095
	E	9.75	15.31	0.637	-	1.7	1.7	26.1	-	0.180

## Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
<b>A</b>	633.0	633.0	54.3	0.09	54.3	0.09
<b>B</b>	730.8	730.8	46.7	0.06	46.8	0.06
<b>C</b>	262.8	262.8	33.9	0.13	34.0	0.13
<b>D</b>	72.0	72.0	6.8	0.09	6.8	0.09
<b>E</b>	585.0	585.0	101.1	0.17	101.2	0.17
<b>ALL</b>	2283.6	2283.6	242.9	0.11	243.0	0.11

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.

These will only be significantly different if there is a large queue remaining at the end of the time period.


## Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

## Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.



<b>ARCADY 6</b>		
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The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution		

**Run Information**

Run with file:- k:\UA005241 - Bicester Traffic Modelling\D-Calcs\Traffic Modelling\J14\UPDATED\NEW\PM Peak with flares unequal west lane usage v1.vai  
 At: 16:34:14 on Wednesday, July 30, 2014  
 Mode: Drive On The Left  
 Units: Metric

**Arm Labelling**

Arm	Full Arm Names
Arm A	B4100
Arm B	A4095 (east)
Arm C	Banbury Road
Arm D	A4095 (west) left
Arm E	A4095 (west) ahead right

**Flow Scaling Factor**

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100
Arm E	100

**File Properties**

<b>Run Title</b>	A4095/ Banbury Road Base (J14)
<b>Location</b>	Bicester
<b>Date</b>	21/02/2014
<b>Client</b>	
<b>Enumerator</b>	dca76340 [HCL57004]
<b>Job Number</b>	
<b>Status</b>	Preliminary
<b>Description</b>	

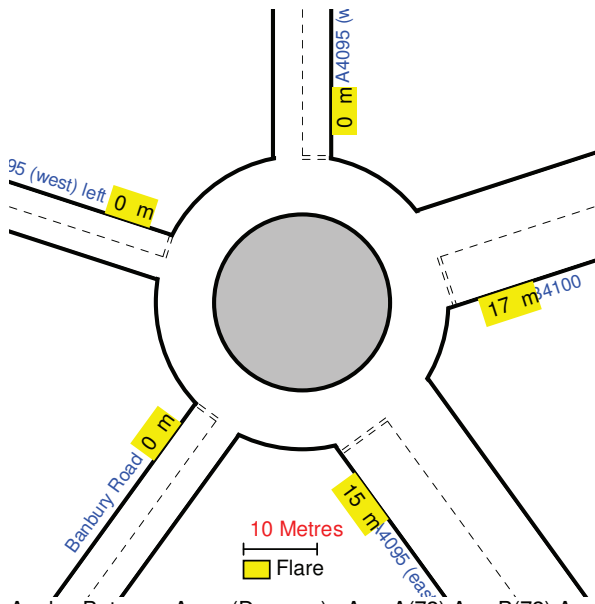
## Errors and Warnings

[No errors or warnings]

## Geometric Data

<b>Data Item</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>	<b>Arm D</b>	<b>Arm E</b>
Approach Road Half-Width (m)	3.60	3.70	3.65	3.20	4.00
Entry Width (m)	7.00	7.80	3.65	3.20	4.00
Flare Length (m)	17.00	15.00	0.00	0.00	0.00
Entry Radius (m)	34.00	18.00	20.00	24.00	24.00
Inscribed Circle Diameter (m)	40.00	40.00	40.00	40.00	40.00
Entry Angle (degrees)	20.00	27.00	30.00	30.00	30.00
Slope	0.681	0.662	0.523	0.500	0.549
Intercept (PCU/Min)	30.221	29.878	18.433	16.292	20.365

### Junction Diagram: (View Extent = 80m)



Angles Between Arms (Degrees): Arm A(72) Arm B(72) Arm C(72) Arm D(72) Arm E(72)

### Demand Data

Demand Profiles are Synthesised using **DIRECT** Data  
 Period of interest (for Queue and Delay calculations): **17:00 to 18:00**  
 Length of Time Period: **60 min**  
 Length of Time Segment: **15 min**

### Direct Data for Demand Set: PM Peak Base

Time Period	Arm	Demand Data (Veh/Min)
<b>Segment : 1 - 17:00 to 17:15</b>	A	8.75
	B	14.87
	C	4.08
	D	1.62
	E	11.70
<b>Segment : 2 - 17:15 to 17:30</b>	A	8.75
	B	14.87
	C	4.08
	D	1.62
	E	11.70
<b>Segment : 3 - 17:30 to 17:45</b>	A	8.75
	B	14.87
	C	4.08
	D	1.62
	E	11.70
<b>Segment : 4 - 17:45 to 18:00</b>	A	8.75
	B	14.87
	C	4.08
	D	1.62
	E	11.70

### Turning Proportions for Demand Set: PM Peak Base

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
17:00 to 18:00	Arm A	0.000	0.484	0.455	0.061	0.000
		0.0	254.0	239.0	32.0	0.0
	Arm B	0.455	0.000	0.161	0.383	0.000
		406.0	0.0	144.0	342.0	0.0
	Arm C	0.645	0.184	0.000	0.171	0.000
		158.0	45.0	0.0	42.0	0.0
	Arm D	0.000	0.000	0.000	0.000	1.000
		0.0	0.0	0.0	0.0	97.0
	Arm E	0.000	0.990	0.010	0.000	0.000
		0.0	695.0	7.0	0.0	0.0

### Heavy Vehicle Percentages for Demand Set: PM Peak Base

Vary over entry

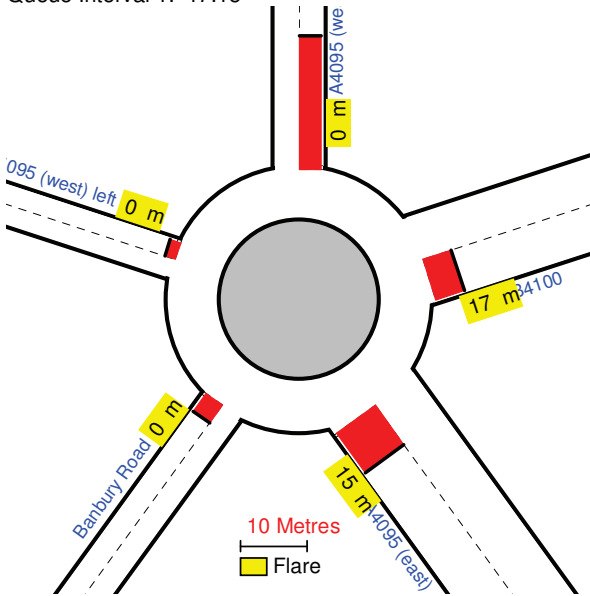
Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
17:00 to 18:00	Arm A	0.0	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0	0.0
	Arm E	0.0	0.0	0.0	0.0	0.0

### Queue Diagrams: (View Extent = 80m)

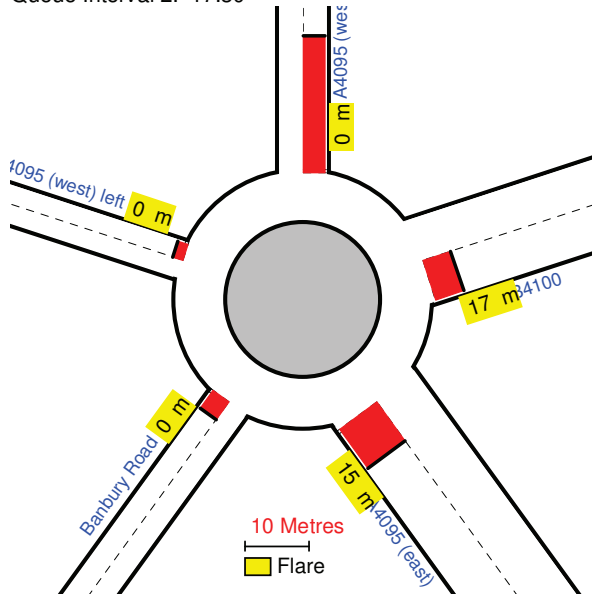
Queue Length	Colour
Mean Queue	Red
5 th % ile	Light Red
90 th % ile	Light Pink
95 th % ile	Very Light Pink

Start Time: 17:00---> End Time: 18:00

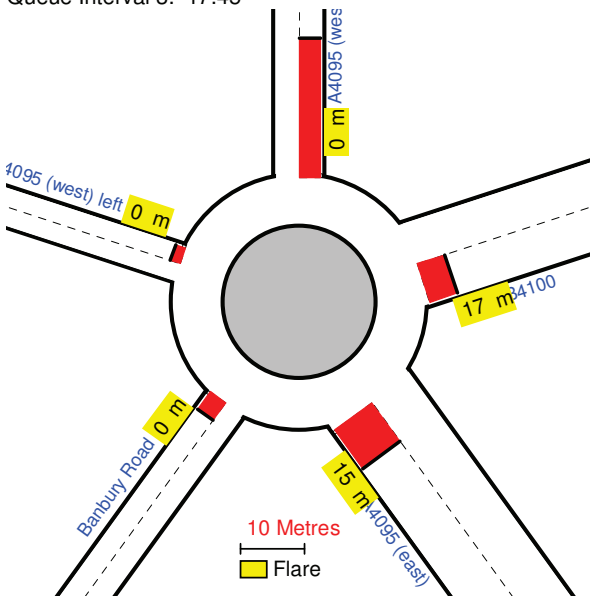
Queue Interval 1: 17:15



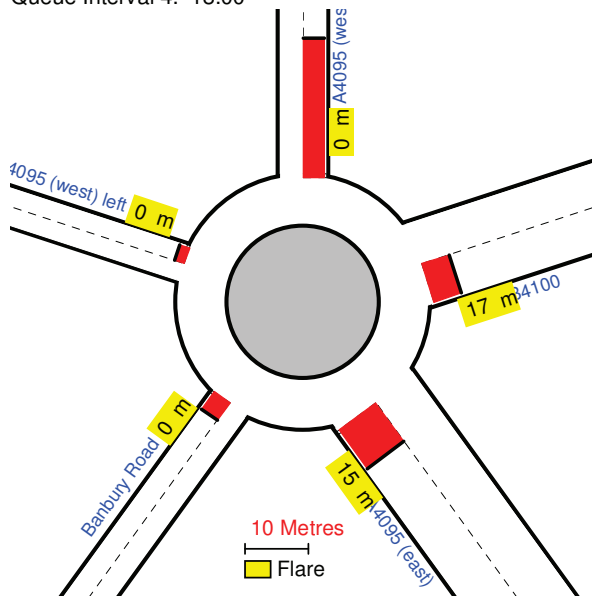
Queue Interval 2: 17:30



Queue Interval 3: 17:45

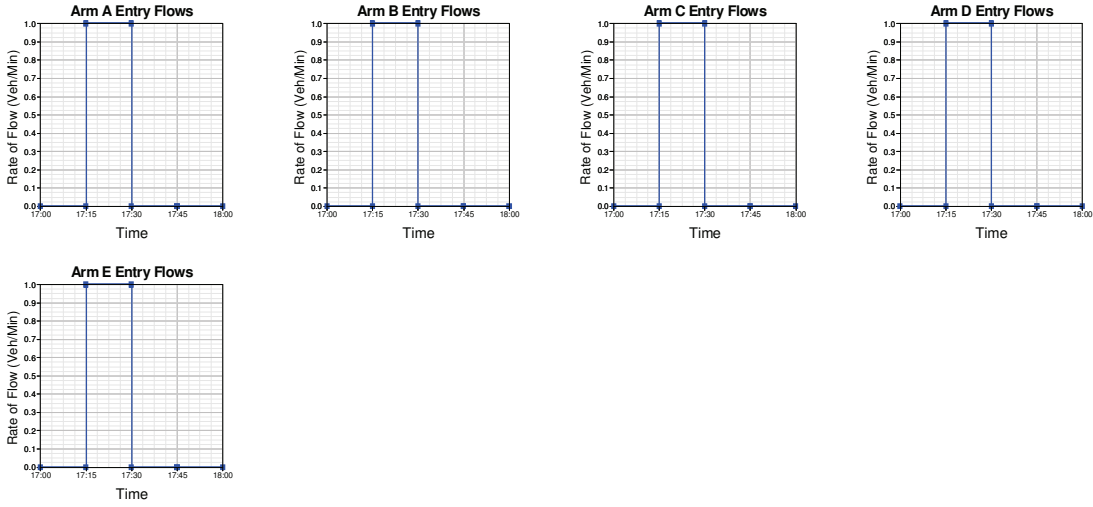


Queue Interval 4: 18:00



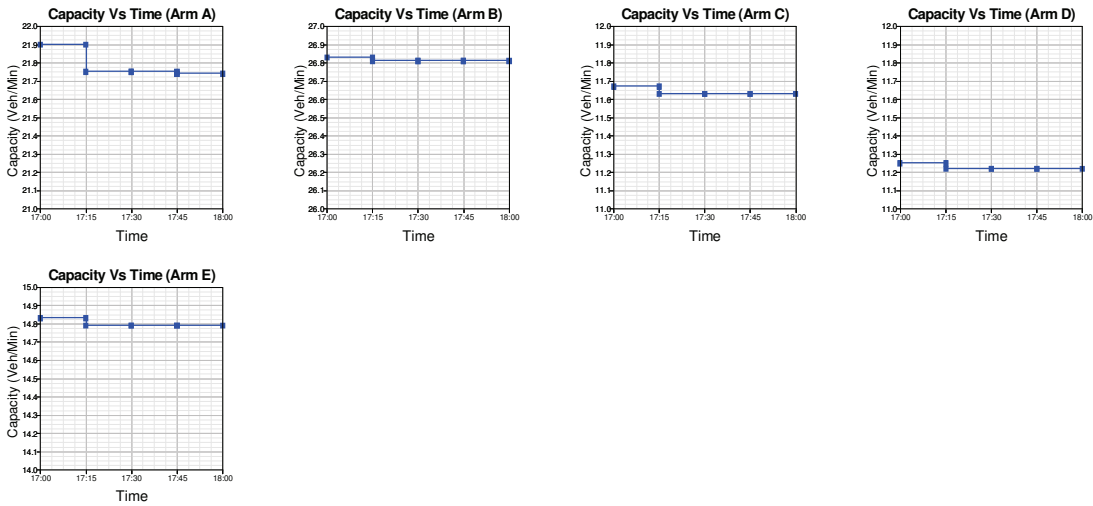
## Demand Data Graphs

### Direct Entry/Exit Flows for Demand Set: PM Peak Base



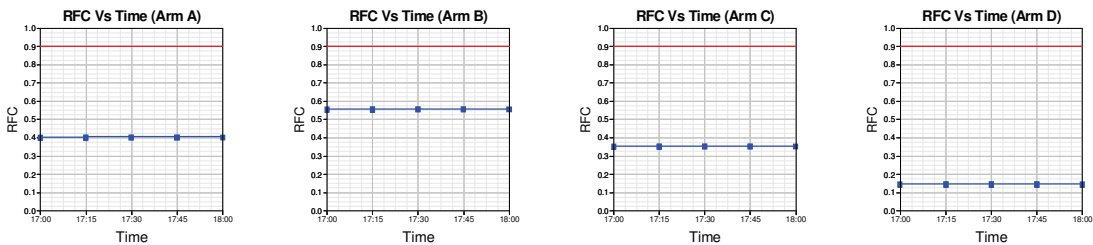
### Capacity (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

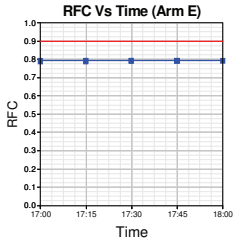
(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### RFC (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

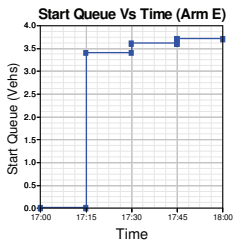
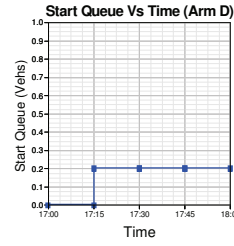
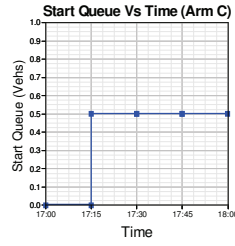
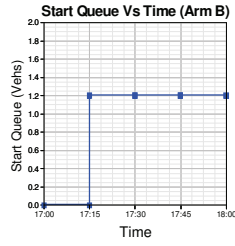
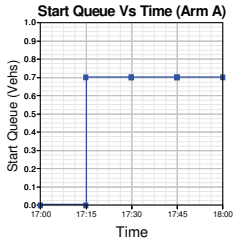
(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)





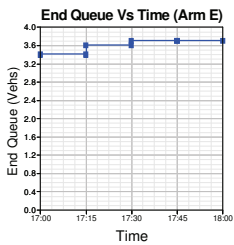
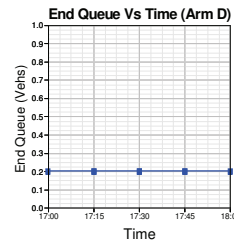
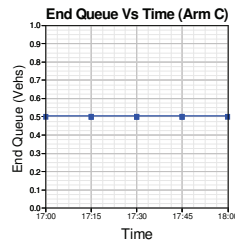
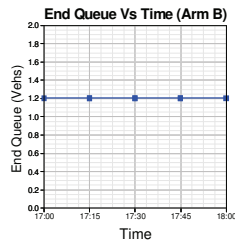
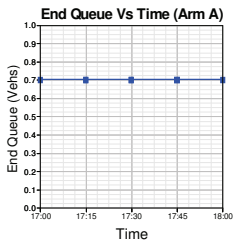
### Start Queue (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### End Queue (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)

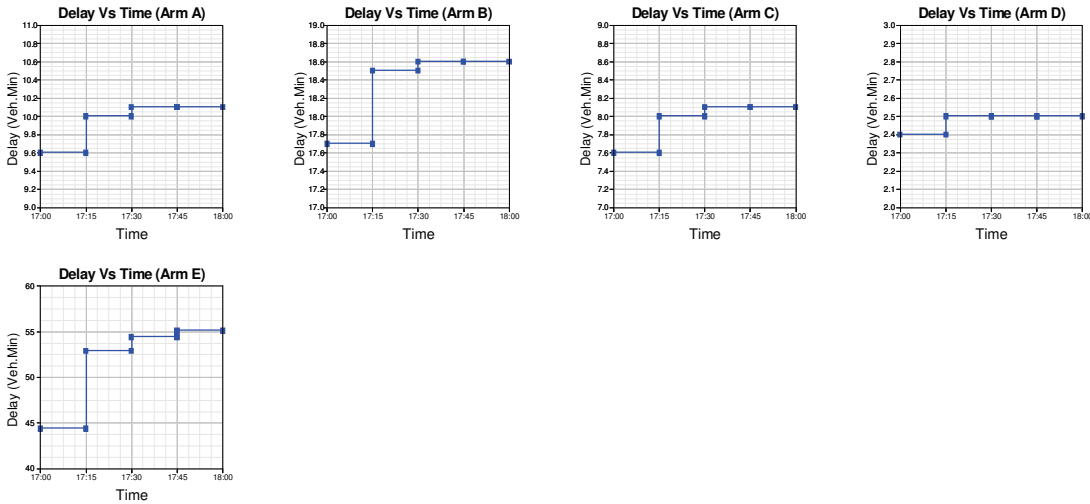


## Geometric Delay Graph

No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

## Delay (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



## Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 17:00 to 17:15	A	8.75	21.90	0.399	-	0.0	0.7	9.6	-	0.075
	B	14.87	26.83	0.554	-	0.0	1.2	17.7	-	0.082
	C	4.08	11.67	0.350	-	0.0	0.5	7.6	-	0.131
	D	1.62	11.25	0.144	-	0.0	0.2	2.4	-	0.104
	E	11.70	14.83	0.789	-	0.0	3.4	44.4	-	0.281
Segment : 2 - 17:15 to 17:30	A	8.75	21.75	0.402	-	0.7	0.7	10.0	-	0.077
	B	14.87	26.81	0.555	-	1.2	1.2	18.5	-	0.084
	C	4.08	11.63	0.351	-	0.5	0.5	8.0	-	0.132
	D	1.62	11.22	0.144	-	0.2	0.2	2.5	-	0.104
	E	11.70	14.79	0.791	-	3.4	3.6	52.9	-	0.319
Segment : 3 - 17:30 to 17:45	A	8.75	21.75	0.402	-	0.7	0.7	10.1	-	0.077
	B	14.87	26.81	0.555	-	1.2	1.2	18.6	-	0.084
	C	4.08	11.63	0.351	-	0.5	0.5	8.1	-	0.132
	D	1.62	11.22	0.144	-	0.2	0.2	2.5	-	0.104
	E	11.70	14.79	0.791	-	3.6	3.7	54.4	-	0.321
Segment : 4 - 17:45 to 18:00	A	8.75	21.74	0.402	-	0.7	0.7	10.1	-	0.077
	B	14.87	26.81	0.555	-	1.2	1.2	18.6	-	0.084
	C	4.08	11.63	0.351	-	0.5	0.5	8.1	-	0.132
	D	1.62	11.22	0.144	-	0.2	0.2	2.5	-	0.104
	E	11.70	14.79	0.791	-	3.7	3.7	55.1	-	0.323



## Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
<b>A</b>	525.0	525.0	39.7	0.08	39.7	0.08
<b>B</b>	892.2	892.2	73.4	0.08	73.4	0.08
<b>C</b>	244.8	244.8	31.8	0.13	31.8	0.13
<b>D</b>	97.2	97.2	10.0	0.10	10.0	0.10
<b>E</b>	702.0	702.0	206.7	0.29	207.2	0.30
<b>ALL</b>	2461.2	2461.2	361.6	0.15	362.1	0.15

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.


These will only be significantly different if there is a large queue remaining at the end of the time period.

## Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

## Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

<b>ARCADY 6</b>		
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TRL Limited Crowthorne House Nine Mile Ride Wokingham, Berks. RG40 3GA, UK		Tel: +44 (0)1344 770758 Fax: +44 (0)1344 770864 Email: software@trl.co.uk Web: www.trlsoftware.co.uk
The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution		

## Run Information

Run with file:- k:\UA005241 - Bicester Traffic Modelling\D-Calcs\Traffic Modelling\J19\Lord's Lane Bucknell Road Base Year 2012 ARCADY AM Model Results (J19) .vai  
 At: 16:37:11 on Wednesday, July 30, 2014  
 Mode: Drive On The Left  
 Units: Metric

## Arm Labelling

Arm	Full Arm Names
Arm A	A4095
Arm B	A4095 Bucknell Road
Arm C	Bucknell Road

## Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100

## File Properties

<b>Run Title</b>	Lord's Lane Bucknell Road Base Year 2012 ARCADY Model Results (J19) AM Base
<b>Location</b>	A4095/A4095 Bucknell Rd/Bucknell Rd
<b>Date</b>	19/05/2014
<b>Client</b>	
<b>Enumerator</b>	CMW44415 [HCL51941]
<b>Job Number</b>	
<b>Status</b>	
<b>Description</b>	

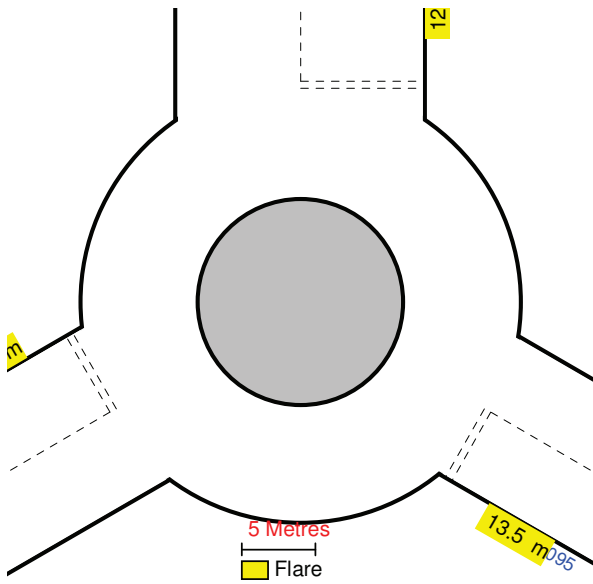
## Errors and Warnings

[No errors or warnings]

## Geometric Data

<b>Data Item</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>
Approach Road Half-Width (m)	4.00	2.80	2.70
Entry Width (m)	5.40	6.00	8.50
Flare Length (m)	13.50	9.00	12.00
Entry Radius (m)	22.00	35.00	42.00
Inscribed Circle Diameter (m)	30.00	30.00	30.00
Entry Angle (degrees)	49.00	27.00	48.00
Slope	0.585	0.595	0.596
Intercept (PCU/Min)	23.940	22.380	24.210

**Junction Diagram: (View Extent = 40m)**



Angles Between Arms (Degrees): Arm A(120) Arm B(120) Arm C(120)

**Demand Data**

Demand Profiles are Synthesised using **DIRECT** Data  
 Period of interest (for Queue and Delay calculations): **08:00 to 09:00**  
 Length of Time Period: **60 min**  
 Length of Time Segment: **15 min**

**Direct Data for Demand Set: AM Existing 0800-0900**

Time Period	Arm	Demand Data (Veh/Min)
<b>Segment : 1 - 08:00 to 08:15</b>	A	6.65
	B	10.12
	C	2.07
<b>Segment : 2 - 08:15 to 08:30</b>	A	6.65
	B	10.12
	C	2.07
<b>Segment : 3 - 08:30 to 08:45</b>	A	6.65
	B	10.12
	C	2.07
<b>Segment : 4 - 08:45 to 09:00</b>	A	6.65
	B	10.12
	C	2.07

**Turning Proportions for Demand Set: AM Existing 0800-0900**

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C
<b>08:00 to 09:00</b>	Arm A	0.000	0.992	0.008
		0.0	395.0	3.0
	Arm B	0.802	0.000	0.198
		487.0	0.0	120.0
	Arm C	0.041	0.959	0.000
		5.0	118.0	0.0

**Heavy Vehicle Percentages for Demand Set: AM Existing 0800-0900**

Vary over entry

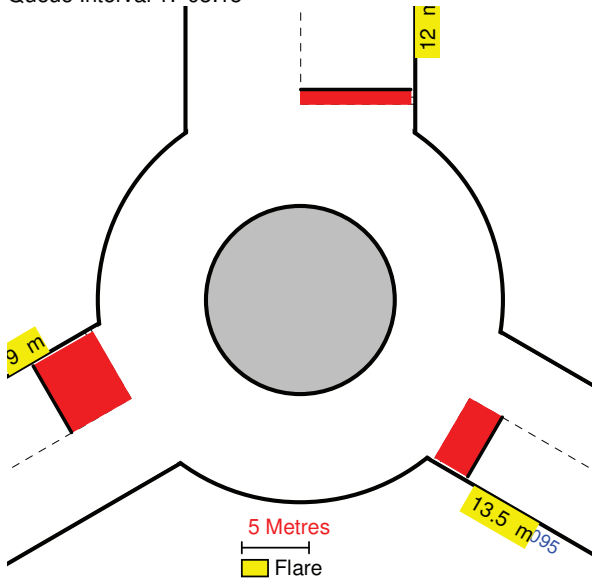
<b>Time Period</b>	<b>From/To</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>
<b>08:00 to 09:00</b>	Arm A	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0

### Queue Diagrams: (View Extent = 40m)

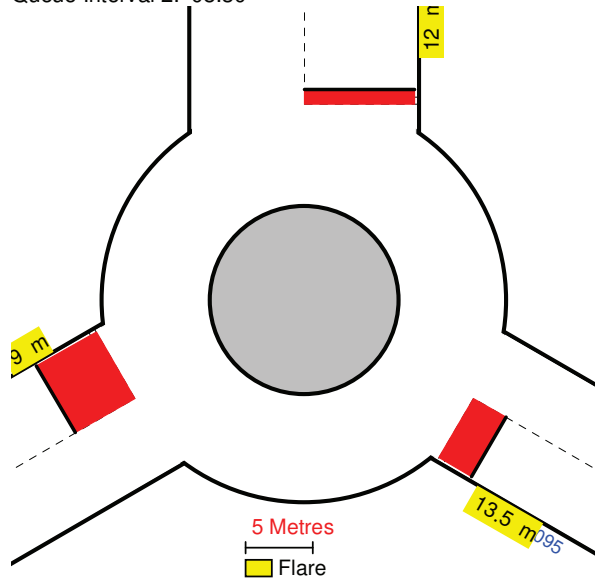
Queue Length	Colour
Mean Queue	Red
5 th % ile	Light Red
90 th % ile	Very Light Red
95 th % ile	Lightest Red

Start Time: 08:00---> End Time: 09:00

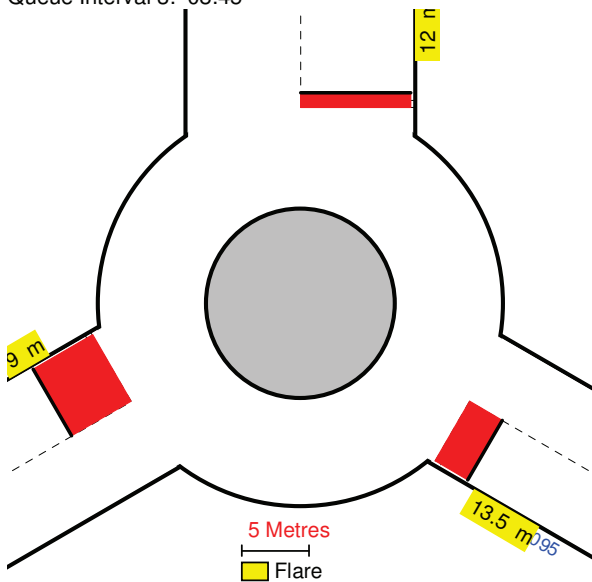
Queue Interval 1: 08:15



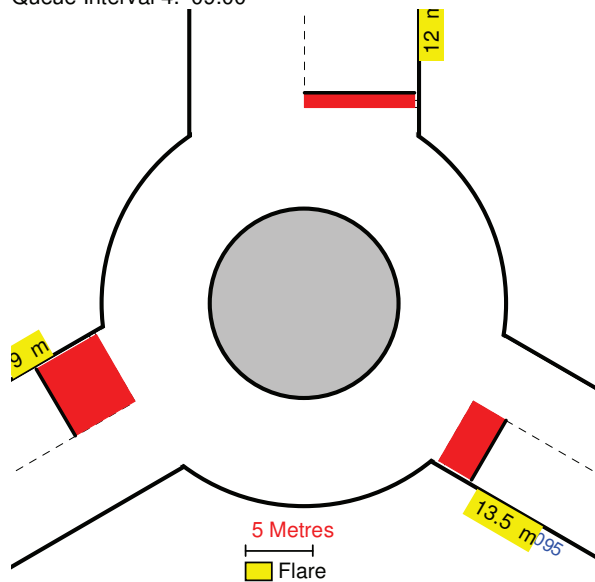
Queue Interval 2: 08:30



Queue Interval 3: 08:45

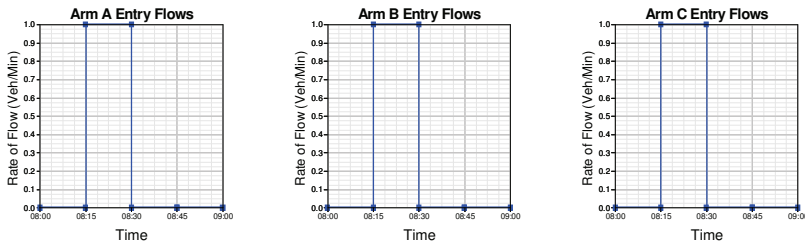


Queue Interval 4: 09:00



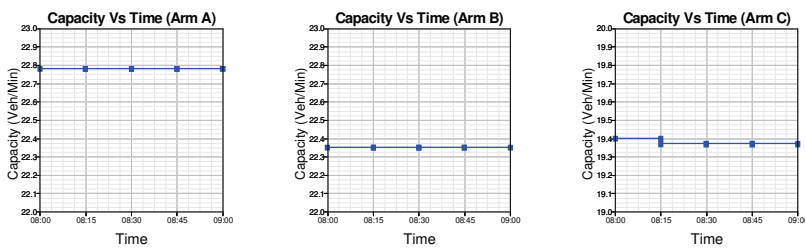
## Demand Data Graphs

### Direct Entry/Exit Flows for Demand Set: AM Existing 0800-0900



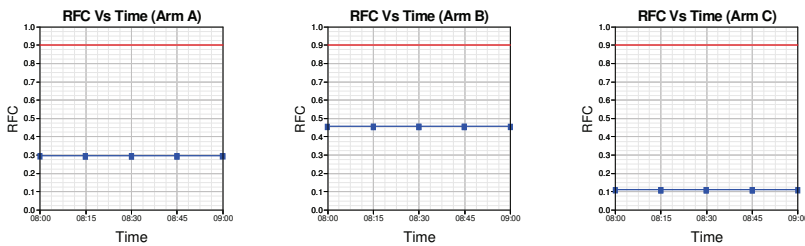
### Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



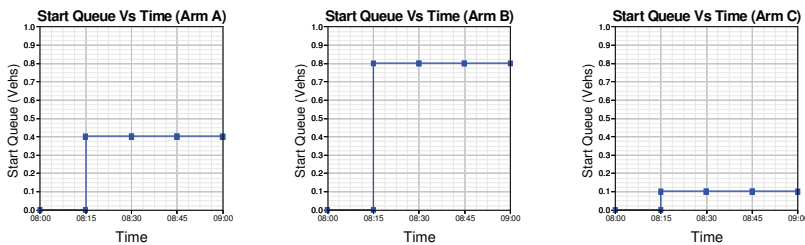
### RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



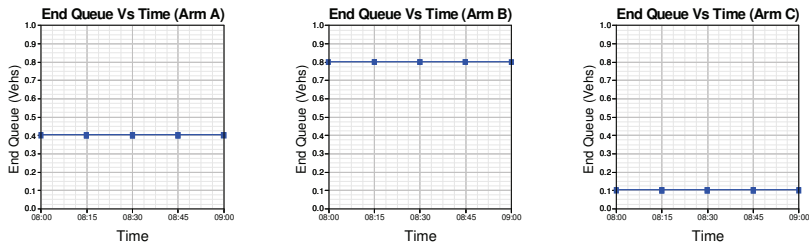
### Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)

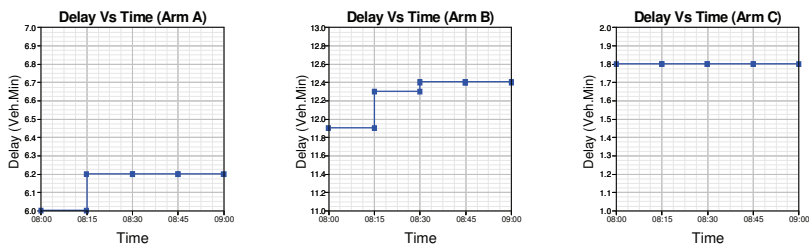


### Geometric Delay Graph

No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

### Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
<b>Segment : 1 - 08:00 to 08:15</b>	A	6.65	22.78	0.292	-	0.0	0.4	6.0	-	0.062
	B	10.12	22.35	0.453	-	0.0	0.8	11.9	-	0.081
	C	2.07	19.40	0.107	-	0.0	0.1	1.8	-	0.058
<b>Segment : 2 - 08:15 to 08:30</b>	A	6.65	22.78	0.292	-	0.4	0.4	6.2	-	0.062
	B	10.12	22.35	0.453	-	0.8	0.8	12.3	-	0.082
	C	2.07	19.37	0.107	-	0.1	0.1	1.8	-	0.058
<b>Segment : 3 - 08:30 to 08:45</b>	A	6.65	22.78	0.292	-	0.4	0.4	6.2	-	0.062
	B	10.12	22.35	0.453	-	0.8	0.8	12.4	-	0.082
	C	2.07	19.37	0.107	-	0.1	0.1	1.8	-	0.058
<b>Segment : 4 - 08:45 to 09:00</b>	A	6.65	22.78	0.292	-	0.4	0.4	6.2	-	0.062
	B	10.12	22.35	0.453	-	0.8	0.8	12.4	-	0.082
	C	2.07	19.37	0.107	-	0.1	0.1	1.8	-	0.058



### Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
<b>A</b>	399.0	399.0	24.5	0.06	24.5	0.06
<b>B</b>	607.2	607.2	48.9	0.08	48.9	0.08
<b>C</b>	124.2	124.2	7.1	0.06	7.1	0.06
<b>ALL</b>	1130.4	1130.4	80.6	0.07	80.6	0.07

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.


These will only be significantly different if there is a large queue remaining at the end of the time period.

### Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

### Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

<b>ARCADY 6</b>		
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## Run Information

Run with file:- k:\UA005241 - Bicester Traffic Modelling\D-Calcs\Traffic Modelling\J19\Lord's Lane Bucknell Road Base Year 2012 ARCADY Model Results (J19) PM Base Model.vai  
At: 16:38:17 on Wednesday, July 30, 2014  
Mode: Drive On The Left  
Units: Metric

## Arm Labelling

Arm	Full Arm Names
Arm A	A4095
Arm B	A4095 Bucknell Road
Arm C	Bucknell Road

## Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100

## File Properties

<b>Run Title</b>	Lord's Lane Bucknell Road Base Year 2012 ARCADY Model Results (J19) PM Base Mode
<b>Location</b>	A4095/A4095 Bucknell Rd/Bucknell Rd
<b>Date</b>	19/05/2014
<b>Client</b>	
<b>Enumerator</b>	CMW44415 [HCL51941]
<b>Job Number</b>	
<b>Status</b>	
<b>Description</b>	

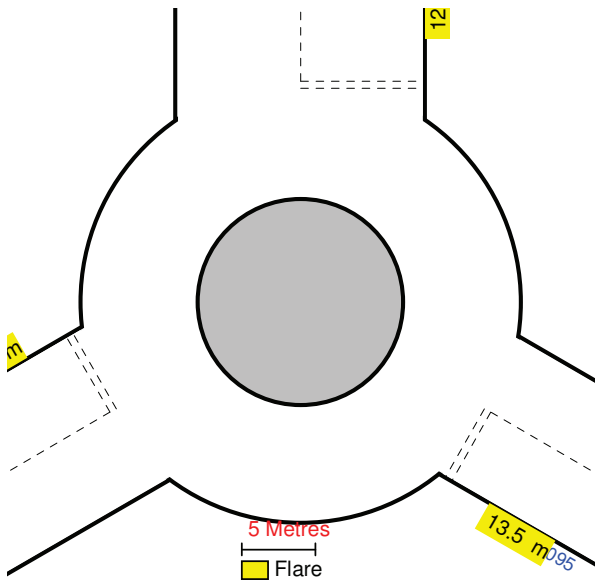
## Errors and Warnings

[No errors or warnings]

## Geometric Data

<b>Data Item</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>
Approach Road Half-Width (m)	4.00	2.80	2.70
Entry Width (m)	5.40	6.00	8.50
Flare Length (m)	13.50	9.00	12.00
Entry Radius (m)	22.00	35.00	42.00
Inscribed Circle Diameter (m)	30.00	30.00	30.00
Entry Angle (degrees)	49.00	27.00	48.00
Slope	0.585	0.595	0.596
Intercept (PCU/Min)	23.940	22.380	24.210

**Junction Diagram: (View Extent = 40m)**



Angles Between Arms (Degrees): Arm A(120) Arm B(120) Arm C(120)

**Demand Data**

Demand Profiles are Synthesised using **DIRECT** Data  
 Period of interest (for Queue and Delay calculations): **17:00 to 18:00**  
 Length of Time Period: **60 min**  
 Length of Time Segment: **15 min**

**Direct Data for Demand Set: PM Existing**

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 17:00 to 17:15	A	4.45
	B	14.30
	C	2.03
Segment : 2 - 17:15 to 17:30	A	4.45
	B	14.30
	C	2.03
Segment : 3 - 17:30 to 17:45	A	4.45
	B	14.30
	C	2.03
Segment : 4 - 17:45 to 18:00	A	4.45
	B	14.30
	C	2.03

**Turning Proportions for Demand Set: PM Existing**

Turning proportions vary over entry and calculated from turning count data (shaded)





Time Period	From/To	Arm A	Arm B	Arm C
17:00 to 18:00	Arm A	0.000	0.981	0.019
		0.0	612.0	12.0
	Arm B	0.743	0.000	0.257
		762.0	0.0	264.0
	Arm C	0.000	1.000	0.000
		0.0	156.0	0.0

**Heavy Vehicle Percentages for Demand Set: PM Existing**

Vary over entry

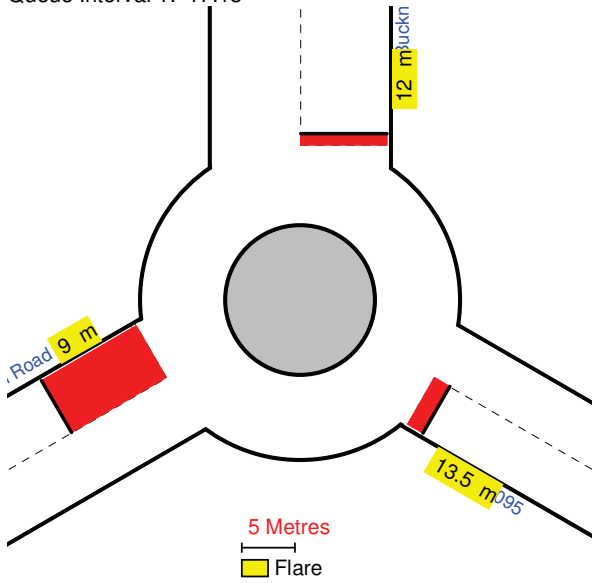
<b>Time Period</b>	<b>From/To</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>
<b>17:00 to 18:00</b>	Arm A	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0

### Queue Diagrams: (View Extent = 40m)

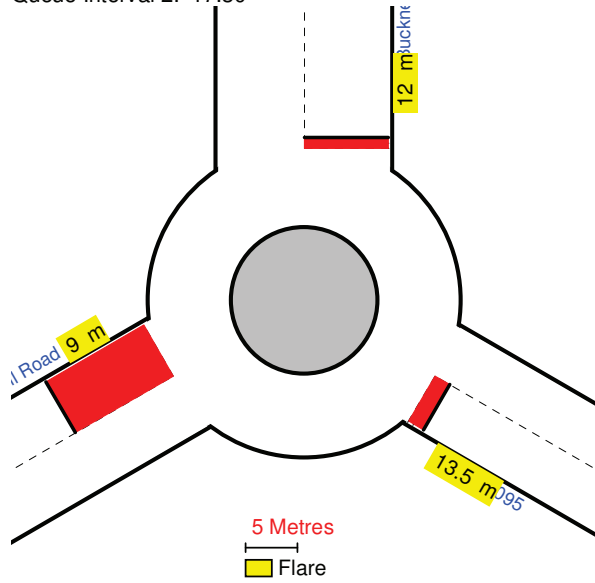
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 17:00---> End Time: 18:00

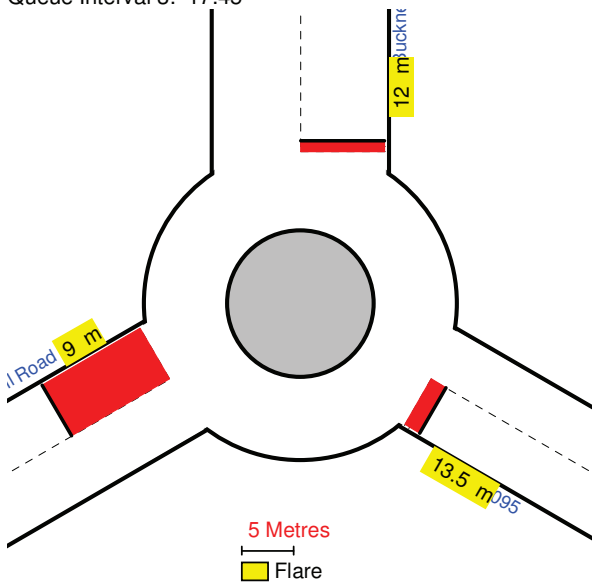
Queue Interval 1: 17:15



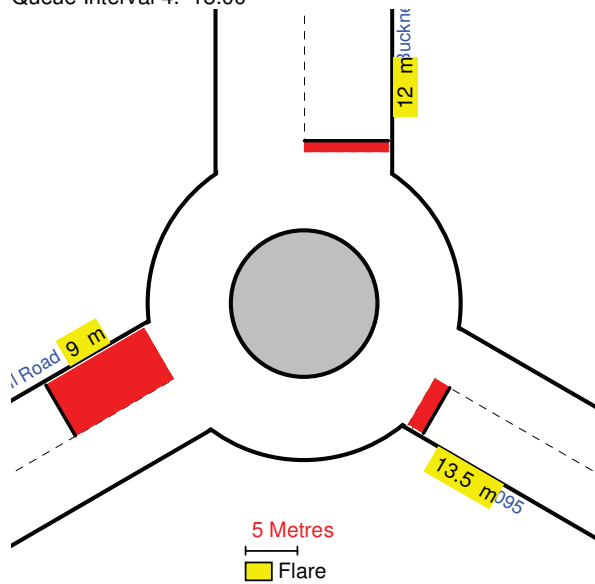
Queue Interval 2: 17:30



Queue Interval 3: 17:45

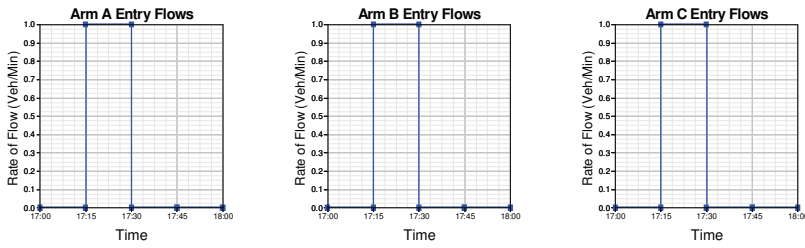


Queue Interval 4: 18:00



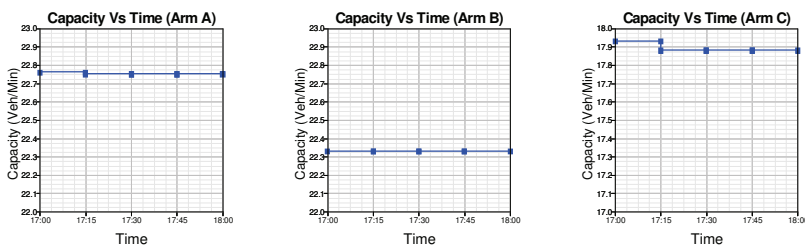
## Demand Data Graphs

### Direct Entry/Exit Flows for Demand Set: PM Existing



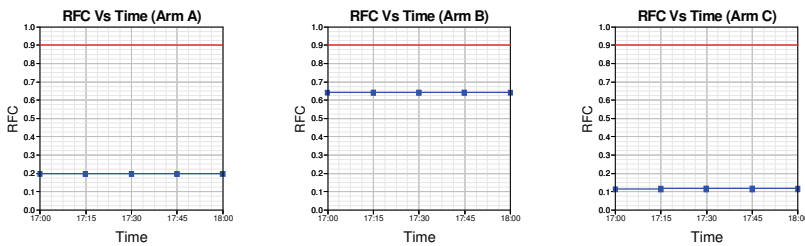
### Capacity (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



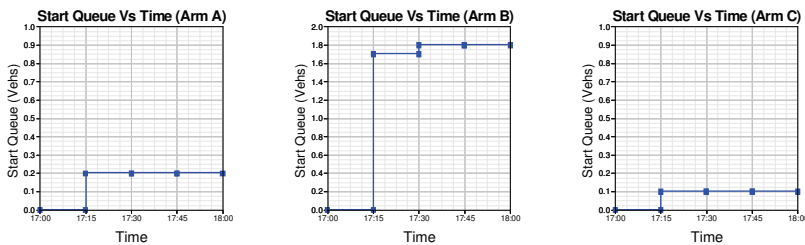
### RFC (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



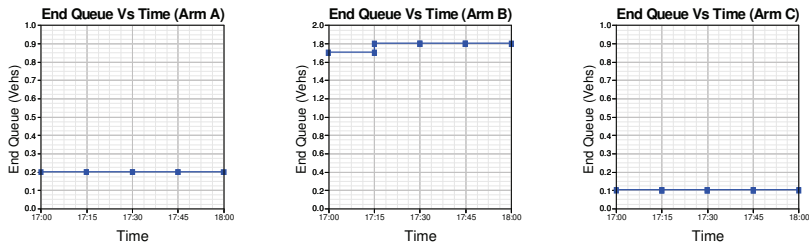
### Start Queue (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### End Queue (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)

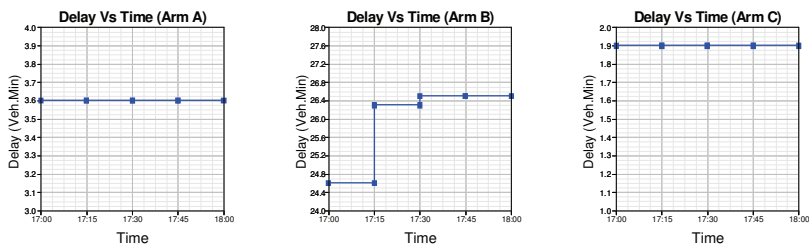


### Geometric Delay Graph

No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

### Delay (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 17:00 to 17:15	A	4.45	22.76	0.196	-	0.0	0.2	3.6	-	0.055
	B	14.30	22.33	0.640	-	0.0	1.7	24.6	-	0.121
	C	2.03	17.93	0.113	-	0.0	0.1	1.9	-	0.063
Segment : 2 - 17:15 to 17:30	A	4.45	22.75	0.196	-	0.2	0.2	3.6	-	0.055
	B	14.30	22.33	0.640	-	1.7	1.8	26.3	-	0.124
	C	2.03	17.88	0.114	-	0.1	0.1	1.9	-	0.063
Segment : 3 - 17:30 to 17:45	A	4.45	22.75	0.196	-	0.2	0.2	3.6	-	0.055
	B	14.30	22.33	0.640	-	1.8	1.8	26.5	-	0.124
	C	2.03	17.88	0.114	-	0.1	0.1	1.9	-	0.063
Segment : 4 - 17:45 to 18:00	A	4.45	22.75	0.196	-	0.2	0.2	3.6	-	0.055
	B	14.30	22.33	0.640	-	1.8	1.8	26.5	-	0.124
	C	2.03	17.88	0.114	-	0.1	0.1	1.9	-	0.063



### Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
<b>A</b>	267.0	267.0	14.5	0.05	14.5	0.05
<b>B</b>	858.0	858.0	103.9	0.12	103.9	0.12
<b>C</b>	121.8	121.8	7.6	0.06	7.6	0.06
<b>ALL</b>	1246.8	1246.8	126.0	0.10	126.0	0.10

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.


These will only be significantly different if there is a large queue remaining at the end of the time period.

### Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

### Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

<b>PICADY</b>		
GUI Version: 5.1 AE Analysis Program Release: 5.0 (MAY 2010)		
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## Run Analysis

Parameter	Values
File Run	K:\..\J20\Howes Lane_Bucknell Road Base Year 2012 PICADY Model Results (J20).vpi
Date Run	30 July 2014
Time Run	15:44:12
Driving Side	Drive On The Left

## Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Bucknell Road S	100
Arm B	Howes Lane	100
Arm C	Bucknell Road N	100

## Stream Labelling Convention

Stream A-B contains traffic going from A to B etc.

## Run Information

Parameter	Values
Run Title	A4095 Howes Lane / Bucknell Road (J20)
Location	Bicester Junction 20
Date	21 May 2014
Enumerator	AAA76232 [HCL51930]
Job Number	UA005241
Status	-
Client	-
Description	-

## Errors and Warnings

Parameter	Values
Warning	No Errors Or Warnings

## Geometric Data

### Geometric Parameters

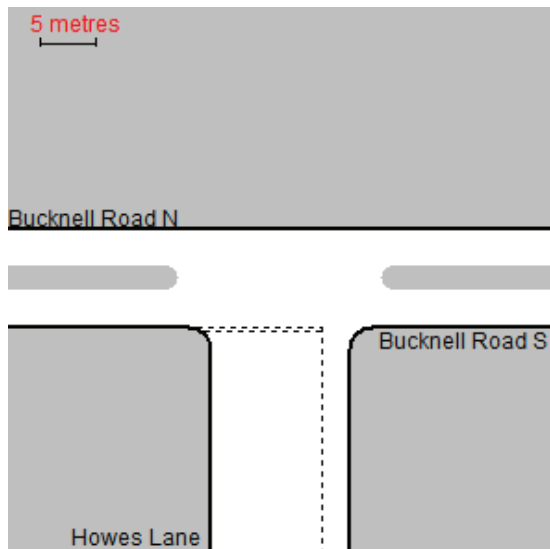
Parameter	Minor Arm B
Major Road Carriageway Width (m)	6.50
Major Road Kerbed Central Reserve Width (m)	1.75
Major Road Right Turning Lane Width (m)	2.30
Minor Road Width 0m Back from Junction (m)	10.00
Minor Road Width 5m Back from Junction (m)	7.50
Minor Road Width 10m Back from Junction (m)	4.50
Minor Road Width 15m Back from Junction (m)	3.40
Minor Road Width 20m Back from Junction (m)	3.00
Minor Road Derived Flare Length (PCU)	1.000
Minor Road Visibility To Right (m)	63
Minor Road Visibility To Left (m)	45
Major Road Right Turn Visibility (m)	63
Major Road Right Turn Blocks Traffic	Yes (if over 3 veh)

### Slope and Intercept Values

Stream	Intercept for Stream	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	0.000	0.000	0.000	0.000	0.000
B-C	0.000	0.000	0.000	-	-
C-B	617.091	0.234	0.234	-	-

Note: Streams may be combined in which case capacity will be adjusted  
 These values do not allow for any site-specific corrections

### Junction Diagram



### Demand Data

#### Modelling Periods

Parameter	Period	Duration (min)	Segment Length (min)
First Modelling Period	08:00-09:00	60	15

**Direct Entry Flows****Demand Set:** Base**Modelling Period:** 08:00-09:00**Segment:** 08:00-08:15

Arm	Flow (veh/min)
Arm A	5.60
Arm B	6.01
Arm C	8.56

**Segment:** 08:15-08:30

Arm	Flow (veh/min)
Arm A	5.60
Arm B	6.01
Arm C	8.56

**Segment:** 08:30-08:45

Arm	Flow (veh/min)
Arm A	5.60
Arm B	6.01
Arm C	8.56

**Segment:** 08:45-09:00

Arm	Flow (veh/min)
Arm A	5.60
Arm B	6.01
Arm C	8.56

**Turning Counts****Demand Set:** Base**Modelling Period:** 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	85	255
Arm B	9	-	352
Arm C	188	326	-

Turning proportions are calculated from turning count data

### Turning Proportions

**Demand Set:** Base

**Modelling Period:** 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.250	0.750
Arm B	0.025	0.000	0.975
Arm C	0.366	0.634	0.000

### Heavy Vehicles Percentages

**Demand Set:** Base

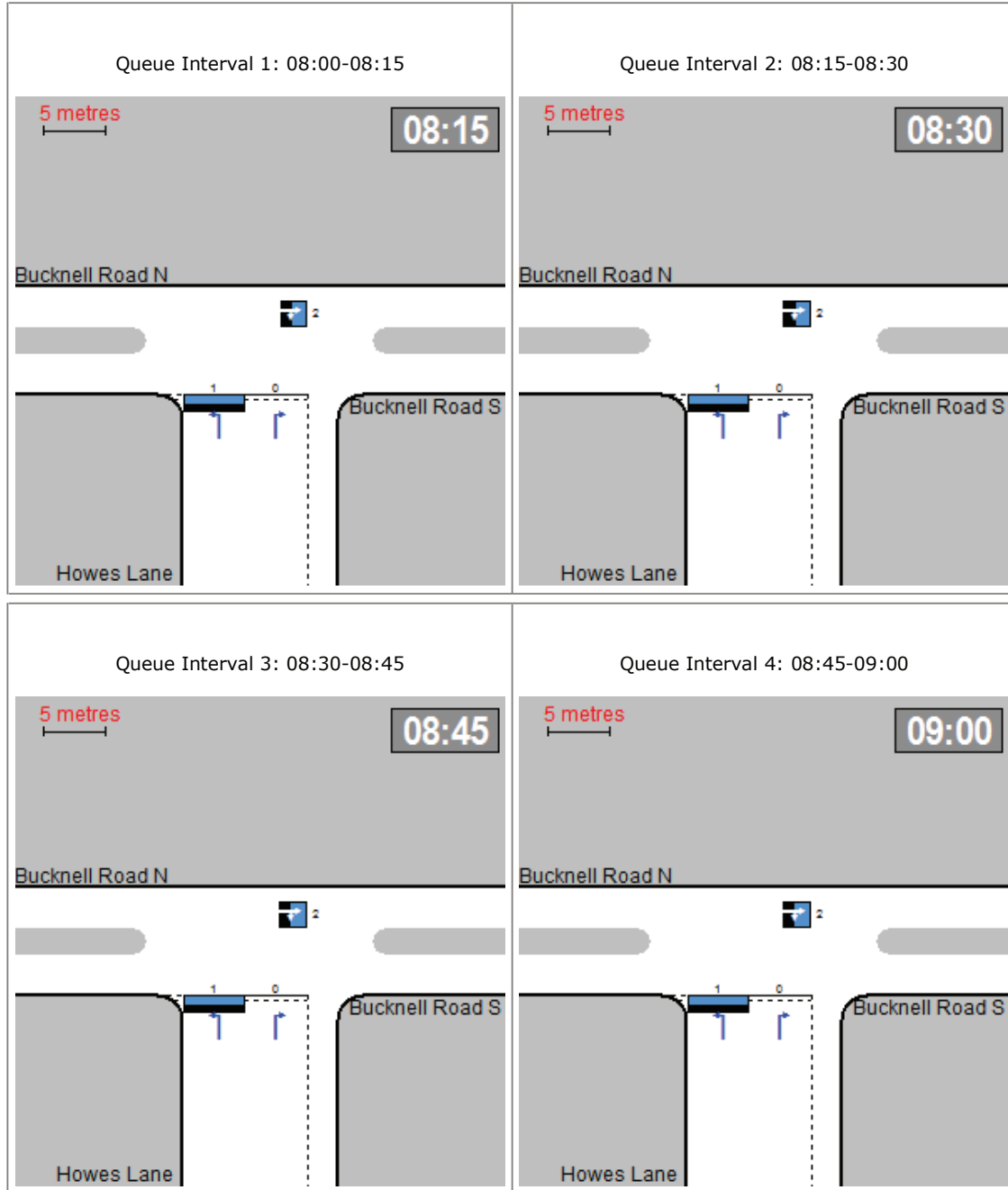
**Modelling Period:** 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Default proportions of heavy vehicles are used

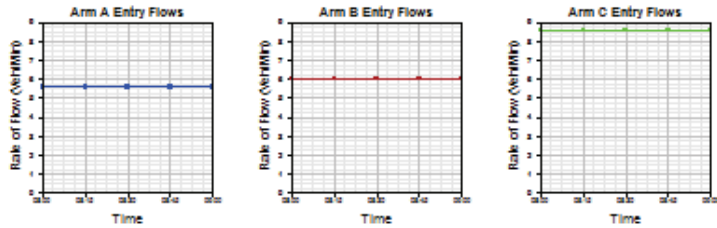
### Queue Diagrams

**Demand Set:** Base  
**Modelling Period:** 08:00-09:00  
**View Extent:** 40m



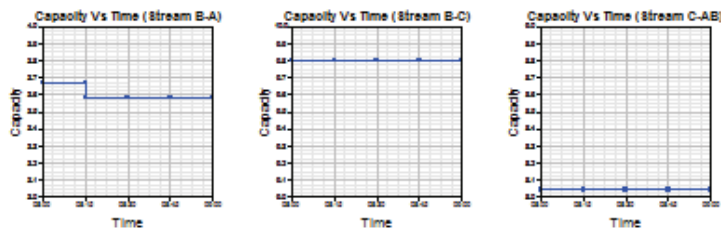
### Demand Data Graph

**Demand Set:** Base  
**Modelling Period:** 08:00-09:00



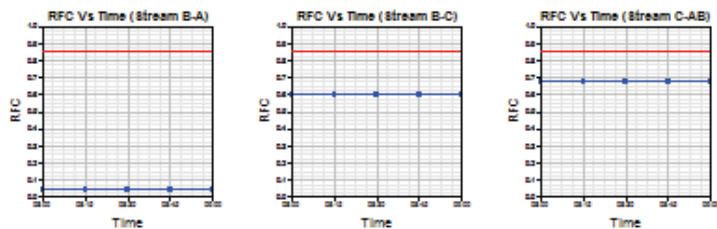
### Capacity Graph

**Demand Set:** Base  
**Modelling Period:** 08:00-09:00



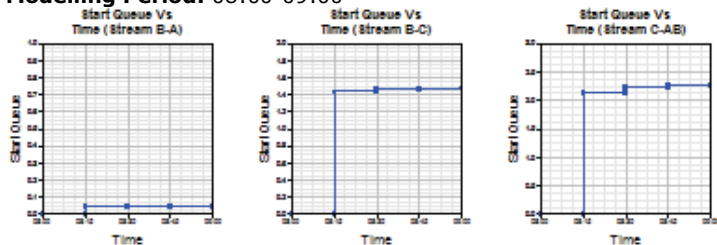
### RFC Graph

**Demand Set:** Base  
**Modelling Period:** 08:00-09:00



### Start Queue Graph

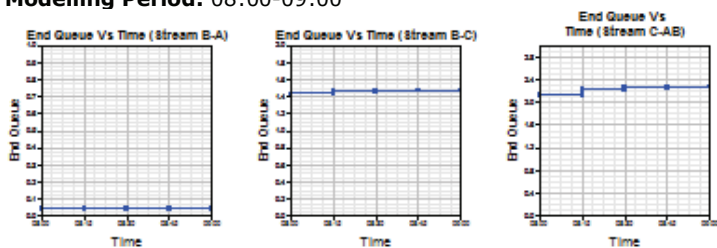
**Demand Set:** Base  
**Modelling Period:** 08:00-09:00





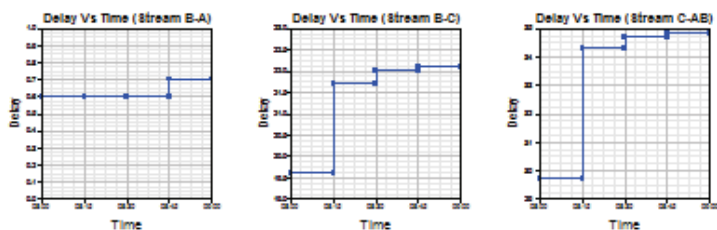
### End Queue Graph

**Demand Set:** Base  
**Modelling Period:** 08:00-09:00



### Delay Graph

**Demand Set:** Base  
**Modelling Period:** 08:00-09:00



### Queues & Delays

**Demand Set:** Base  
**Modelling Period:** 08:00-09:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-A	0.15	3.67	0.041	-	0.00	0.04	-	0.6	0.28
	B-C	5.86	9.80	0.598	-	0.00	1.43	-	19.6	0.24
	C-AB	5.43	8.04	0.675	-	0.00	2.13	-	29.7	0.35
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.40	-	-	-	-	-	-	-	-
	A-C	4.20	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-A	0.15	3.58	0.042	-	0.04	0.04	-	0.6	0.29
	B-C	5.86	9.80	0.598	-	1.43	1.46	-	21.7	0.25
	C-AB	5.43	8.04	0.675	-	2.13	2.22	-	34.3	0.38
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.40	-	-	-	-	-	-	-	-
	A-C	4.20	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-A	0.15	3.58	0.042	-	0.04	0.04	-	0.6	0.29
	B-C	5.86	9.80	0.598	-	1.46	1.47	-	22.0	0.25
	C-AB	5.43	8.04	0.675	-	2.22	2.25	-	34.7	0.39
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.40	-	-	-	-	-	-	-	-
	A-C	4.20	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-A	0.15	3.58	0.042	-	0.04	0.04	-	0.7	0.29
	B-C	5.86	9.80	0.598	-	1.47	1.47	-	22.1	0.25
	C-AB	5.43	8.04	0.675	-	2.25	2.27	-	34.8	0.39
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.40	-	-	-	-	-	-	-	-
	A-C	4.20	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.

In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.

Delays marked with '###' could not be calculated.

## Overall Queues & Delays

### Queueing Delay Information Over Whole Period

**Demand Set:** Base

**Modelling Period:** 08:00-09:00


Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	9.0	9.0	2.5	0.3	2.5	0.3
B-C	351.6	351.6	85.3	0.2	85.4	0.2
C-AB	325.7	325.7	133.5	0.4	133.9	0.4
C-A	-	-	-	-	-	-
A-B	84.0	84.0	-	-	-	-
A-C	252.0	252.0	-	-	-	-
<b>All</b>	<b>1210.2</b>	<b>1210.2</b>	<b>221.4</b>	<b>0.2</b>	<b>221.8</b>	<b>0.2</b>

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles which are still queuing after the end of the time period.

These will only be significantly different if there is a large queue remaining at the end of the time period.

### PICADY 5 Run Successful

<b>PICADY</b>		
GUI Version: 5.1 AE Analysis Program Release: 5.0 (MAY 2010)		
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<b>The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution</b>		

## Run Analysis

Parameter	Values
File Run	K:\..\J20\A4095 Howes Lane Bucknell Road PICADY Model Results (J20) PM Peak Reference Case.vpi
Date Run	30 July 2014
Time Run	15:46:37
Driving Side	Drive On The Left

## Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Bucknell Road S	100
Arm B	Howes Lane	100
Arm C	Bucknell Road N	100

## Stream Labelling Convention

Stream A-B contains traffic going from A to B etc.

## Run Information

Parameter	Values
Run Title	A4095 Howes Lane / Bucknell Road (J20)
Location	Bicester Junction 20
Date	21 May 2014
Enumerator	AAA76232 [HCL51930]
Job Number	UA005241
Status	-
Client	-
Description	-

## Errors and Warnings

Parameter	Values
Warning	No Errors Or Warnings

## Geometric Data

### Geometric Parameters

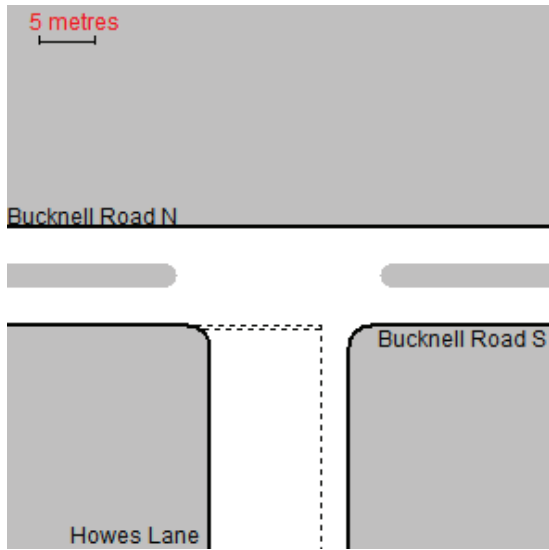
Parameter	Minor Arm B
Major Road Carriageway Width (m)	6.50
Major Road Kerbed Central Reserve Width (m)	1.75
Major Road Right Turning Lane Width (m)	2.30
Minor Road Width 0m Back from Junction (m)	10.00
Minor Road Width 5m Back from Junction (m)	7.50
Minor Road Width 10m Back from Junction (m)	4.50
Minor Road Width 15m Back from Junction (m)	3.40
Minor Road Width 20m Back from Junction (m)	3.00
Minor Road Derived Flare Length (PCU)	1.000
Minor Road Visibility To Right (m)	63
Minor Road Visibility To Left (m)	45
Major Road Right Turn Visibility (m)	63
Major Road Right Turn Blocks Traffic	Yes (if over 3 veh)

### Slope and Intercept Values

Stream	Intercept for Stream	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	0.000	0.000	0.000	0.000	0.000
B-C	0.000	0.000	0.000	-	-
C-B	617.091	0.234	0.234	-	-

Note: Streams may be combined in which case capacity will be adjusted  
 These values do not allow for any site-specific corrections

### Junction Diagram



### Demand Data

#### Modelling Periods

Parameter	Period	Duration (min)	Segment Length (min)
First Modelling Period	16:00-17:00	60	15

**Direct Entry Flows****Demand Set:** Base**Modelling Period:** 16:00-17:00**Segment:** 16:00-16:15

Arm	Flow (veh/min)
Arm A	9.66
Arm B	7.25
Arm C	6.46

**Segment:** 16:15-16:30

Arm	Flow (veh/min)
Arm A	9.66
Arm B	7.25
Arm C	6.46

**Segment:** 16:30-16:45

Arm	Flow (veh/min)
Arm A	9.66
Arm B	7.25
Arm C	6.46

**Segment:** 16:45-17:00

Arm	Flow (veh/min)
Arm A	9.66
Arm B	7.25
Arm C	6.46

**Turning Counts****Demand Set:** Base**Modelling Period:** 16:00-17:00

From/To	Arm A	Arm B	Arm C
Arm A	-	151	429
Arm B	6	-	429
Arm C	85	303	-

Turning proportions are calculated from turning count data

### Turning Proportions

**Demand Set:** Base

**Modelling Period:** 16:00-17:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.260	0.740
Arm B	0.014	0.000	0.986
Arm C	0.219	0.781	0.000

### Heavy Vehicles Percentages

**Demand Set:** Base

**Modelling Period:** 16:00-17:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Default proportions of heavy vehicles are used



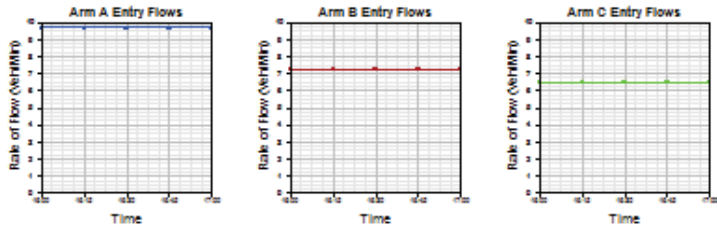
### Queue Diagrams

**Demand Set:** Base  
**Modelling Period:** 16:00-17:00  
**View Extent:** 40m



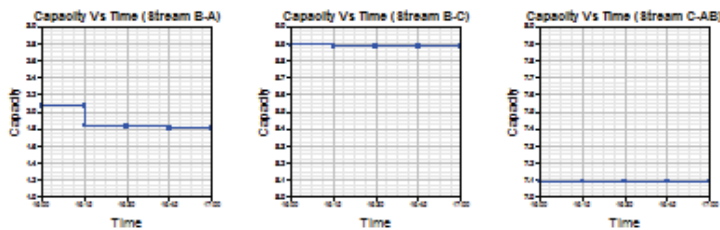
### Demand Data Graph

**Demand Set:** Base  
**Modelling Period:** 16:00-17:00



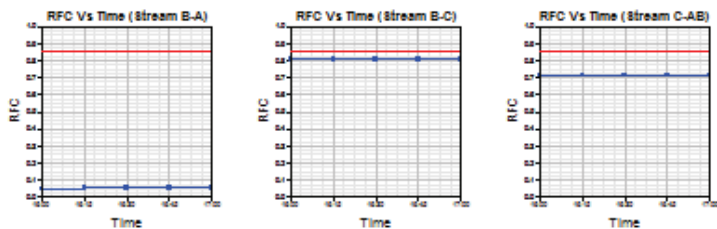
### Capacity Graph

**Demand Set:** Base  
**Modelling Period:** 16:00-17:00



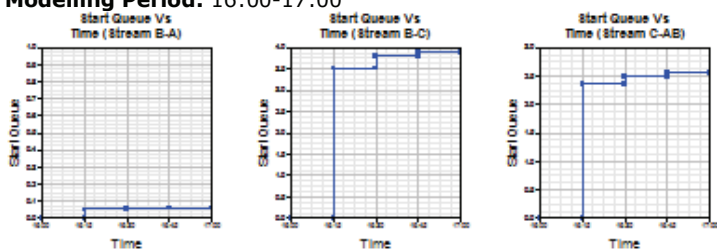
### RFC Graph

**Demand Set:** Base  
**Modelling Period:** 16:00-17:00



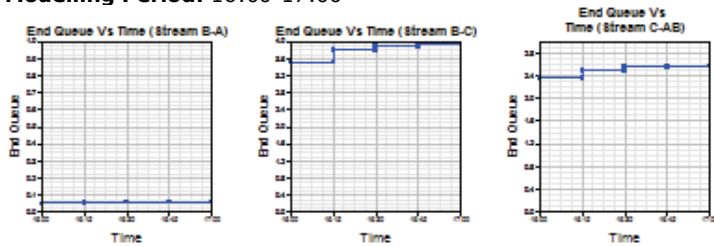
### Start Queue Graph

**Demand Set:** Base  
**Modelling Period:** 16:00-17:00



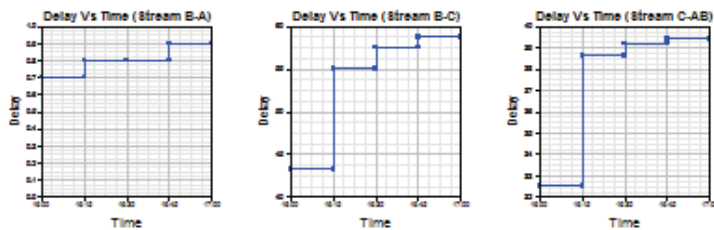
### End Queue Graph

**Demand Set:** Base  
**Modelling Period:** 16:00-17:00



### Delay Graph

**Demand Set:** Base  
**Modelling Period:** 16:00-17:00



### Queues & Delays

**Demand Set:** Base  
**Modelling Period:** 16:00-17:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
16:00-16:15	B-A	0.10	2.07	0.048	-	0.00	0.05	-	0.7	0.51
	B-C	7.15	8.89	0.805	-	0.00	3.51	-	43.3	0.46
	C-AB	5.04	7.09	0.711	-	0.00	2.36	-	32.5	0.43
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.51	-	-	-	-	-	-	-	-
	A-C	7.15	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
16:15-16:30	B-A	0.10	1.84	0.054	-	0.05	0.06	-	0.8	0.57
	B-C	7.15	8.88	0.805	-	3.51	3.78	-	55.0	0.56
	C-AB	5.04	7.09	0.711	-	2.36	2.49	-	38.6	0.49
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.51	-	-	-	-	-	-	-	-
	A-C	7.15	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
16:30-16:45	B-A	0.10	1.82	0.055	-	0.06	0.06	-	0.8	0.58
	B-C	7.15	8.88	0.805	-	3.78	3.88	-	57.5	0.57
	C-AB	5.04	7.09	0.711	-	2.49	2.54	-	39.2	0.49
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.51	-	-	-	-	-	-	-	-
	A-C	7.15	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
16:45-17:00	B-A	0.10	1.81	0.055	-	0.06	0.06	-	0.9	0.58
	B-C	7.15	8.88	0.805	-	3.88	3.94	-	58.7	0.57
	C-AB	5.04	7.09	0.711	-	2.54	2.56	-	39.4	0.49
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.51	-	-	-	-	-	-	-	-
	A-C	7.15	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.

In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.

Delays marked with '###' could not be calculated.

## Overall Queues & Delays

### Queueing Delay Information Over Whole Period

**Demand Set:** Base

**Modelling Period:** 16:00-17:00


Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	6.0	6.0	3.2	0.5	3.2	0.5
B-C	429.0	429.0	214.6	0.5	215.5	0.5
C-AB	302.7	302.7	149.6	0.5	150.1	0.5
C-A	-	-	-	-	-	-
A-B	150.9	150.9	-	-	-	-
A-C	428.7	428.7	-	-	-	-
<b>All</b>	<b>1402.2</b>	<b>1402.2</b>	<b>367.4</b>	<b>0.3</b>	<b>368.7</b>	<b>0.3</b>

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles which are still queuing after the end of the time period.

These will only be significantly different if there is a large queue remaining at the end of the time period.

### PICADY 5 Run Successful

<b>ARCADY 6</b>		
GUI Version: 6.2 AG Analysis Program: Release 7.0 (FEBRUARY 2010) (c) Copyright TRL Limited, 2004 Adapted from ARCADY/3 which is Crown Copyright by permission of the controller of HMSO For sales and distribution information, program advice and maintenance, contact:		
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**Run Information**

Run with file:- c:\Users\afa00534\Documents\MODELLING\B4030\_A4095 Base Year 2012 ARCADY Model Results (J23) AM.vai  
 At: 14:57:15 on Wednesday, July 30, 2014  
 Mode: Drive On The Left  
 Units: Metric

**Arm Labelling**

Arm	Full Arm Names
Arm A	B4030 (Northwest)
Arm B	Howes Lane
Arm C	Middleton Stoney Rd
Arm D	B4030 Vendee Drive left turn
Arm E	B4030 Vendee Drive ahead right

**Flow Scaling Factor**

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100
Arm E	100

**File Properties**

<b>Run Title</b>	B4030/ A4095 Base J23
<b>Location</b>	Bicester
<b>Date</b>	10/12/2013
<b>Client</b>	
<b>Enumerator</b>	dca76340 [HCL57004]
<b>Job Number</b>	
<b>Status</b>	Preliminary
<b>Description</b>	

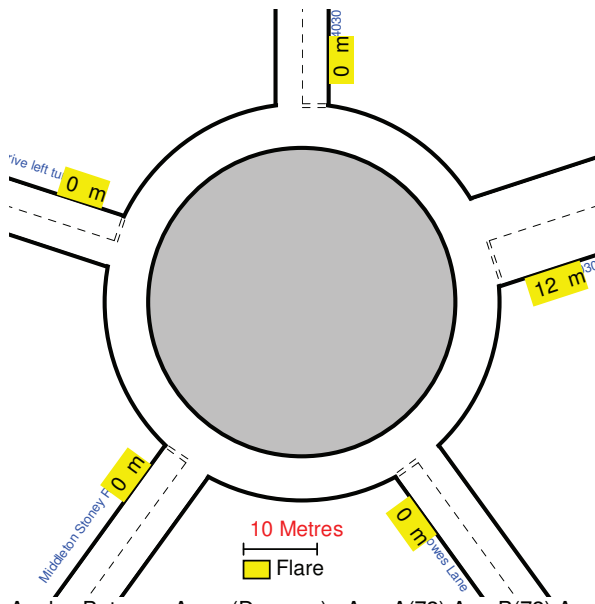
## Errors and Warnings

[No errors or warnings]

## Geometric Data

<b>Data Item</b>	<b>Arm A</b>	<b>Arm B</b>	<b>Arm C</b>	<b>Arm D</b>	<b>Arm E</b>
Approach Road Half-Width (m)	3.25	3.65	3.65	3.65	3.65
Entry Width (m)	6.30	3.65	3.65	3.65	3.65
Flare Length (m)	12.00	0.00	0.00	0.00	0.00
Entry Radius (m)	25.00	17.00	28.00	16.00	16.00
Inscribed Circle Diameter (m)	54.00	54.00	54.00	54.00	54.00
Entry Angle (degrees)	45.00	45.00	37.00	42.00	42.00
Slope	0.528	0.451	0.476	0.455	0.455
Intercept (PCU/Min)	23.854	17.314	18.242	17.440	17.440

**Junction Diagram: (View Extent = 80m)**



Angles Between Arms (Degrees): Arm A(72) Arm B(72) Arm C(72) Arm D(72) Arm E(72)

**Demand Data**

Demand Profiles are Synthesised using **DIRECT** Data  
 Period of interest (for Queue and Delay calculations): **08:00 to 09:00**  
 Length of Time Period: **60 min**  
 Length of Time Segment: **15 min**

**Direct Data for Demand Set: 2012 Base Flow**

Time Period	Arm	Demand Data (Veh/Min)
<b>Segment : 1 - 08:00 to 08:15</b>	A	4.80
	B	4.83
	C	6.00
	D	0.30
	E	8.75
<b>Segment : 2 - 08:15 to 08:30</b>	A	4.80
	B	4.83
	C	6.00
	D	0.30
	E	8.75
<b>Segment : 3 - 08:30 to 08:45</b>	A	4.80
	B	4.83
	C	6.00
	D	0.30
	E	8.75
<b>Segment : 4 - 08:45 to 09:00</b>	A	4.80
	B	4.83
	C	6.00
	D	0.30
	E	8.75



**Turning Proportions for Demand Set: 2012 Base Flow**

Turning proportions vary over entry and calculated from turning count data (shaded)





Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
08:00 to 09:00	Arm A	0.000	0.087	0.830	0.083	0.000
		0.0	25.0	239.0	24.0	0.0
	Arm B	0.269	0.000	0.003	0.728	0.000
		78.0	0.0	1.0	211.0	0.0
	Arm C	0.478	0.028	0.000	0.494	0.000
		172.0	10.0	0.0	178.0	0.0
	Arm D	0.000	0.000	0.000	0.000	1.000
		0.0	0.0	0.0	0.0	18.0
	Arm E	0.000	0.590	0.410	0.000	0.000
		0.0	310.0	215.0	0.0	0.0

**Heavy Vehicle Percentages for Demand Set: 2012 Base Flow**

Vary over entry

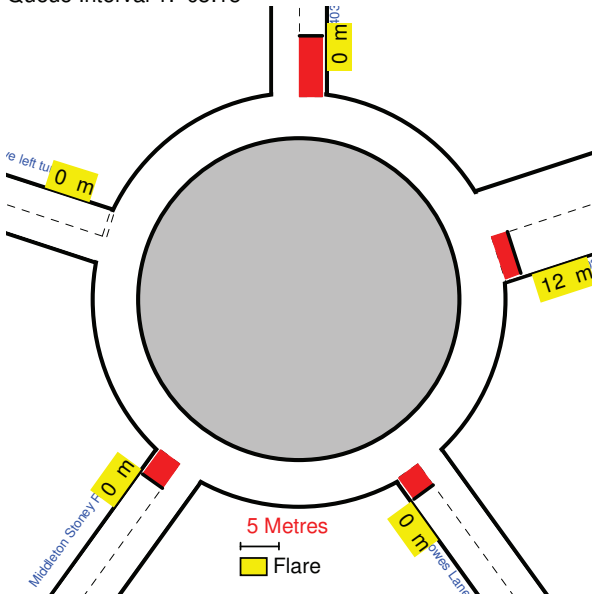
Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
08:00 to 09:00	Arm A	0.0	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0	0.0
	Arm E	0.0	0.0	0.0	0.0	0.0

### Queue Diagrams: (View Extent = 80m)

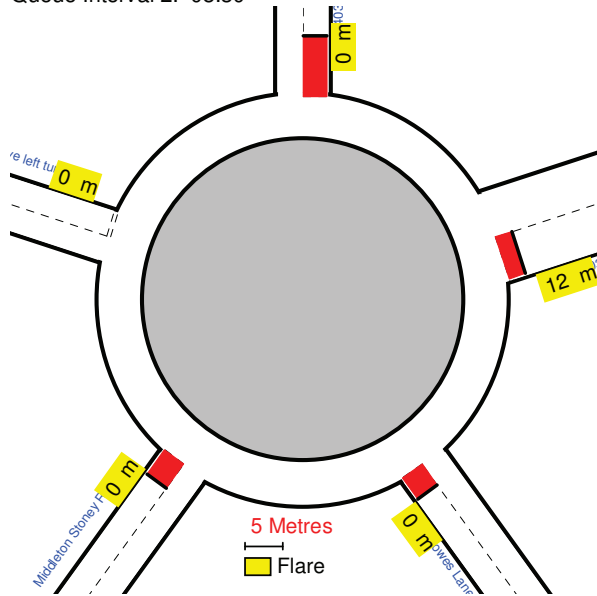
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 08:00----> End Time: 09:00

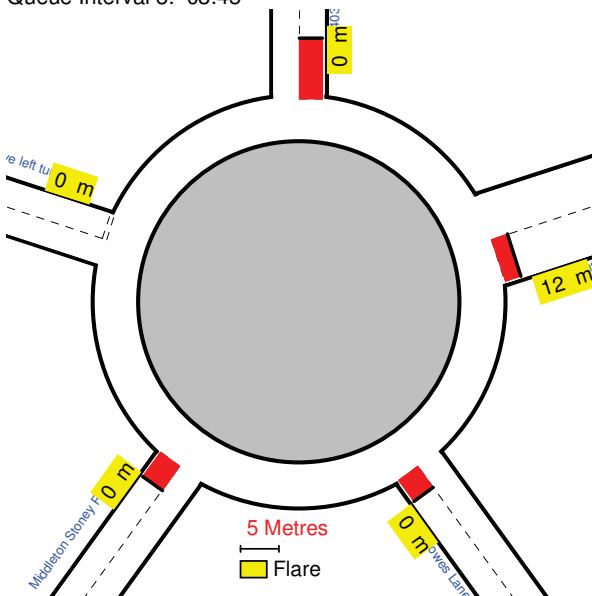
Queue Interval 1: 08:15



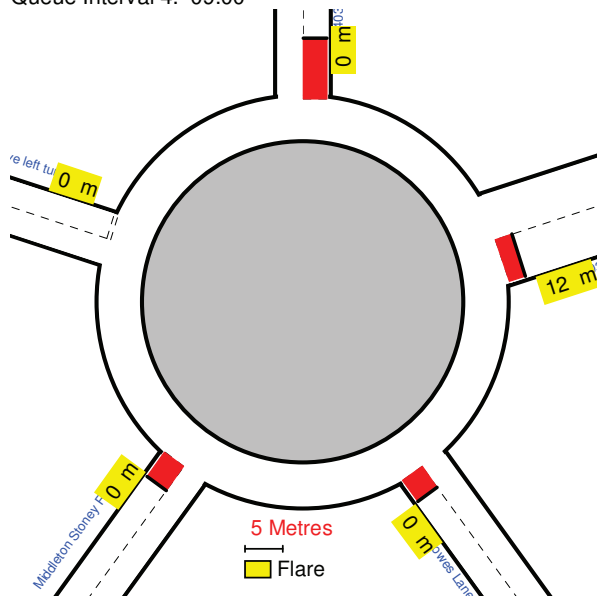
Queue Interval 2: 08:30



Queue Interval 3: 08:45

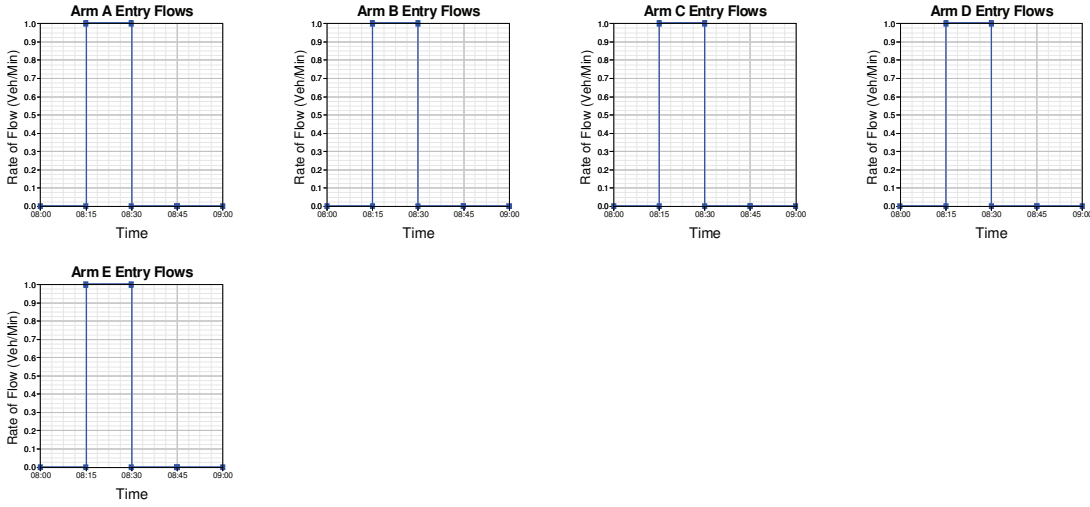


Queue Interval 4: 09:00



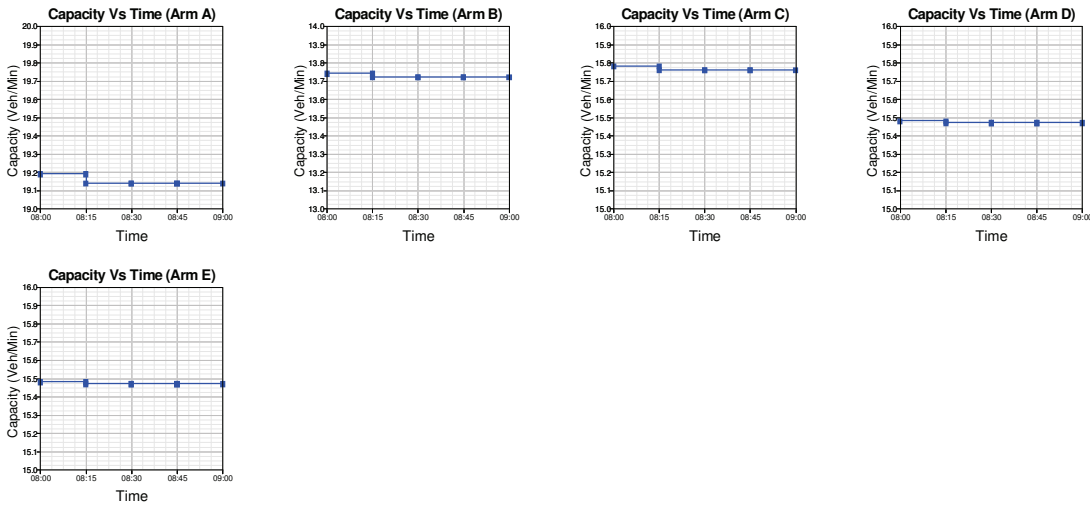
## Demand Data Graphs

### Direct Entry/Exit Flows for Demand Set: 2012 Base Flow



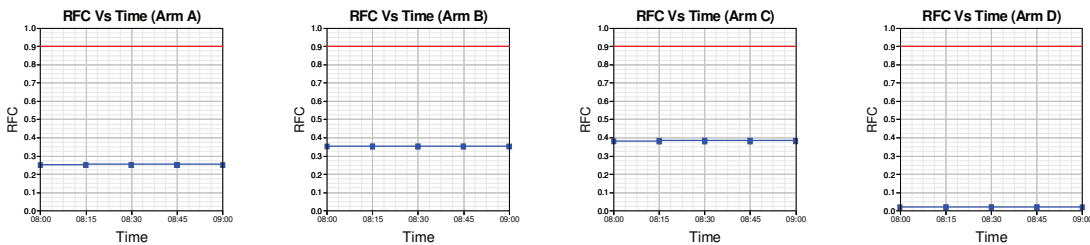
### Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

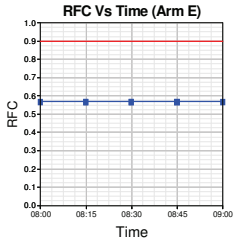
(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

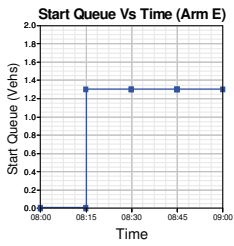
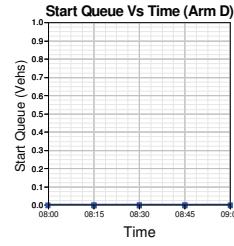
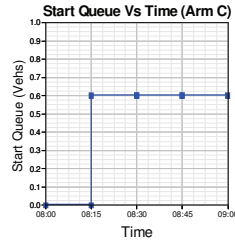
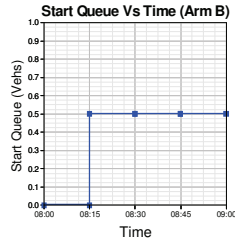
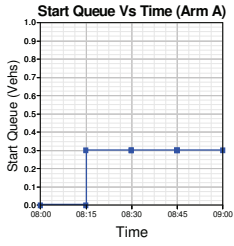
(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)





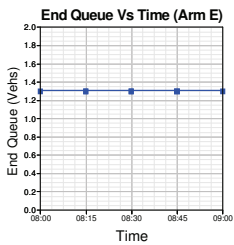
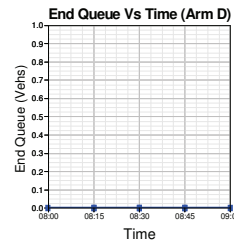
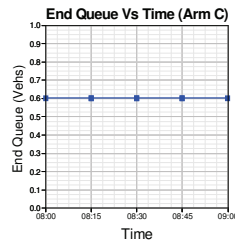
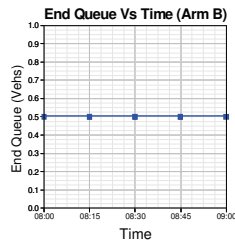
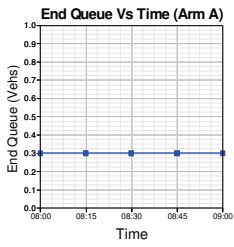
### Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)

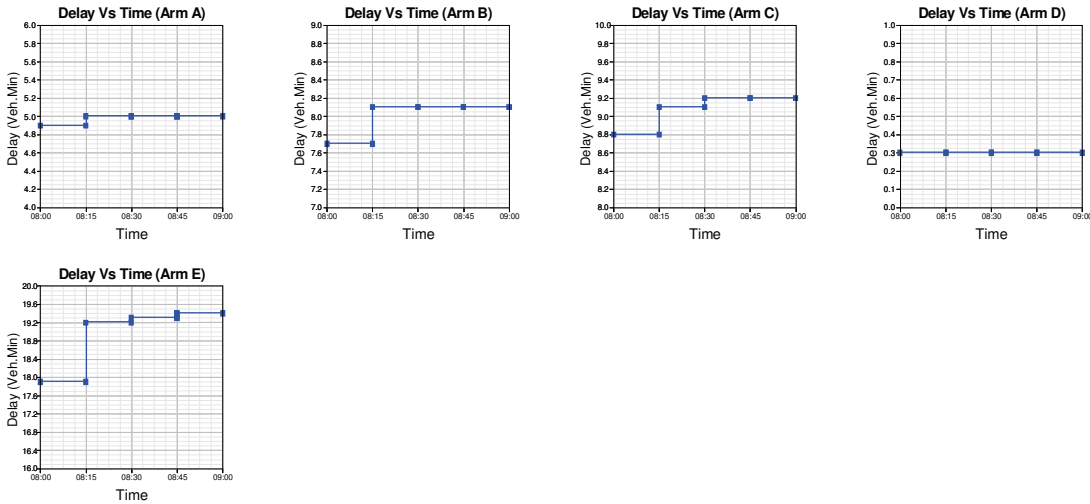


## Geometric Delay Graph

No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

## Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



## Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
<b>Segment : 1 - 08:00 to 08:15</b>	A	4.80	19.19	0.250	-	0.0	0.3	4.9	-	0.069
	B	4.83	13.74	0.351	-	0.0	0.5	7.7	-	0.111
	C	6.00	15.78	0.380	-	0.0	0.6	8.8	-	0.101
	D	0.30	15.48	0.019	-	0.0	0.0	0.3	-	0.066
	E	8.75	15.48	0.565	-	0.0	1.3	17.9	-	0.145
<b>Segment : 2 - 08:15 to 08:30</b>	A	4.80	19.14	0.251	-	0.3	0.3	5.0	-	0.070
	B	4.83	13.72	0.352	-	0.5	0.5	8.1	-	0.112
	C	6.00	15.76	0.381	-	0.6	0.6	9.1	-	0.102
	D	0.30	15.47	0.019	-	0.0	0.0	0.3	-	0.066
	E	8.75	15.47	0.566	-	1.3	1.3	19.2	-	0.149
<b>Segment : 3 - 08:30 to 08:45</b>	A	4.80	19.14	0.251	-	0.3	0.3	5.0	-	0.070
	B	4.83	13.72	0.352	-	0.5	0.5	8.1	-	0.112
	C	6.00	15.76	0.381	-	0.6	0.6	9.2	-	0.102
	D	0.30	15.47	0.019	-	0.0	0.0	0.3	-	0.066
	E	8.75	15.47	0.566	-	1.3	1.3	19.3	-	0.149
<b>Segment : 4 - 08:45 to 09:00</b>	A	4.80	19.14	0.251	-	0.3	0.3	5.0	-	0.070
	B	4.83	13.72	0.352	-	0.5	0.5	8.1	-	0.112
	C	6.00	15.76	0.381	-	0.6	0.6	9.2	-	0.102
	D	0.30	15.47	0.019	-	0.0	0.0	0.3	-	0.066
	E	8.75	15.47	0.566	-	1.3	1.3	19.4	-	0.149

## Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
<b>A</b>	288.0	288.0	19.9	0.07	19.9	0.07
<b>B</b>	289.8	289.8	32.0	0.11	32.0	0.11
<b>C</b>	360.0	360.0	36.3	0.10	36.3	0.10
<b>D</b>	18.0	18.0	1.2	0.07	1.2	0.07
<b>E</b>	525.0	525.0	75.9	0.14	75.9	0.14
<b>ALL</b>	1480.8	1480.8	165.2	0.11	165.3	0.11

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.


These will only be significantly different if there is a large queue remaining at the end of the time period.

## Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

## Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

<b>ARCADY 6</b>		
GUI Version: 6.2 AG Analysis Program: Release 7.0 (FEBRUARY 2010) (c) Copyright TRL Limited, 2004 Adapted from ARCADY/3 which is Crown Copyright by permission of the controller of HMSO For sales and distribution information, program advice and maintenance, contact:		
TRL Limited Crowthorne House Nine Mile Ride Wokingham, Berks. RG40 3GA, UK		Tel: +44 (0)1344 770758 Fax: +44 (0)1344 770864 Email: software@trl.co.uk Web: www.trlsoftware.co.uk
The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution		

## Run Information

Run with file:- c:\Users\afa00534\Documents\MODELLING\B4030\_A4095 Base Year 2012 ARCADY Model Results (J23) PM.vai  
At: 14:58:24 on Wednesday, July 30, 2014  
Mode: Drive On The Left  
Units: Metric

## Arm Labelling

Arm	Full Arm Names
Arm A	B4030 (Northwest)
Arm B	Howes Lane
Arm C	Middleton Stoney Rd
Arm D	B4030 Vendee Drive left turn
Arm E	B4030 Vendee Drive ahead right

## Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100
Arm E	100

## File Properties

<b>Run Title</b>	B4030/ A4095 J23 PM
<b>Location</b>	Bicester
<b>Date</b>	10/12/2013
<b>Client</b>	
<b>Enumerator</b>	dca76340 [HCL57004]
<b>Job Number</b>	
<b>Status</b>	Preliminary
<b>Description</b>	

## Errors and Warnings

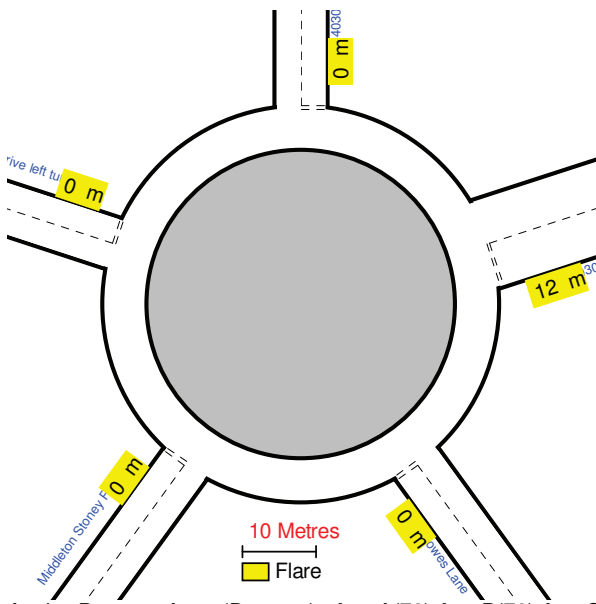
[No errors or warnings]

## Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D	Arm E
Approach Road Half-Width (m)	3.25	3.65	3.65	3.65	3.65
Entry Width (m)	6.30	3.65	3.65	3.65	3.65
Flare Length (m)	12.00	0.00	0.00	0.00	0.00
Entry Radius (m)	25.00	17.00	28.00	16.00	16.00
Inscribed Circle Diameter (m)	54.00	54.00	54.00	54.00	54.00
Entry Angle (degrees)	45.00	45.00	37.00	42.00	42.00
Slope	0.528	0.451	0.476	0.455	0.455
Intercept (PCU/Min)	23.854	17.314	18.242	17.440	17.440



### Junction Diagram: (View Extent = 80m)



Angles Between Arms (Degrees): Arm A(72) Arm B(72) Arm C(72) Arm D(72) Arm E(72)

### Demand Data

Demand Profiles are Synthesised using **DIRECT** Data  
 Period of interest (for Queue and Delay calculations): **17:00 to 18:00**  
 Length of Time Period: **60 min**  
 Length of Time Segment: **15 min**

### Direct Data for Demand Set: 2012 Base Model

Time Period	Arm	Demand Data (Veh/Min)
<b>Segment : 1 - 17:00 to 17:15</b>	A	4.83
	B	6.16
	C	6.13
	D	0.02
	E	7.15
<b>Segment : 2 - 17:15 to 17:30</b>	A	4.83
	B	6.16
	C	6.13
	D	0.02
	E	7.15
<b>Segment : 3 - 17:30 to 17:45</b>	A	4.83
	B	6.16
	C	6.13
	D	0.02
	E	7.15
<b>Segment : 4 - 17:45 to 18:00</b>	A	4.83
	B	6.16
	C	6.13
	D	0.02
	E	7.15

### Turning Proportions for Demand Set: 2012 Base Model

Turning proportions vary over entry and calculated from turning count data (shaded)





Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
17:00 to 18:00	Arm A	0.000	0.186	0.790	0.024	0.000
		0.0	54.0	229.0	7.0	0.0
	Arm B	0.289	0.000	0.011	0.700	0.000
		106.0	0.0	4.0	257.0	0.0
	Arm C	0.698	0.003	0.000	0.299	0.000
		257.0	1.0	0.0	110.0	0.0
	Arm D	0.000	0.000	0.000	0.000	1.000
		0.0	0.0	0.0	0.0	0.0
	Arm E	0.000	0.681	0.319	0.000	0.000
		0.0	292.0	137.0	0.0	0.0

### Heavy Vehicle Percentages for Demand Set: 2012 Base Model

Vary over entry

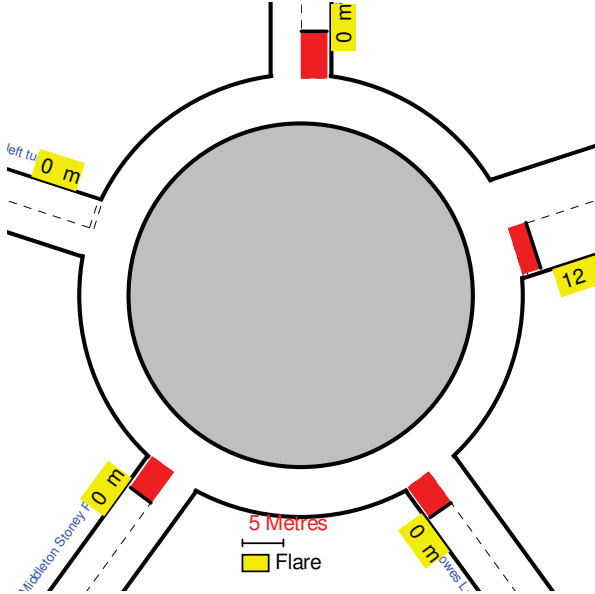
Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
17:00 to 18:00	Arm A	0.0	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0	0.0
	Arm E	0.0	0.0	0.0	0.0	0.0

### Queue Diagrams: (View Extent = 80m)

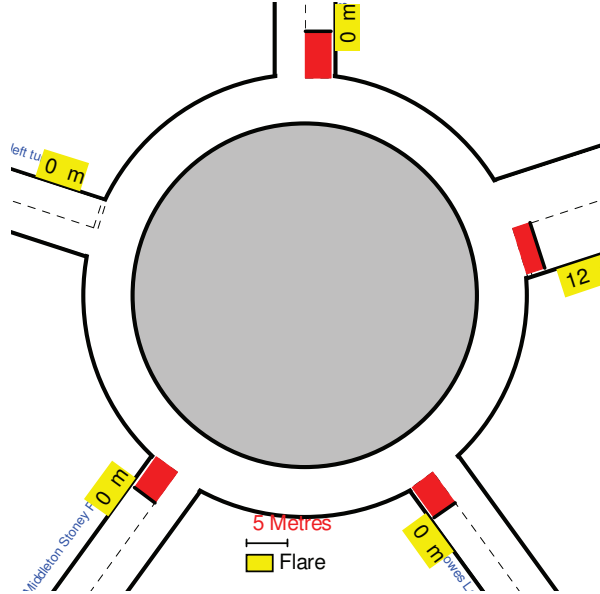
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 17:00---> End Time: 18:00

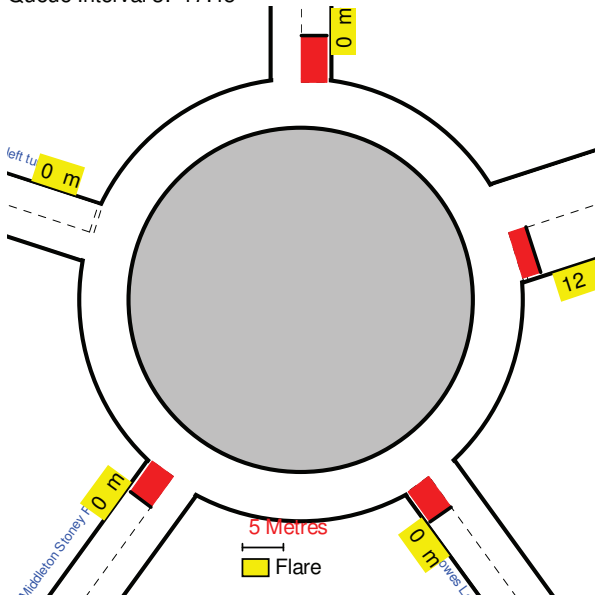
Queue Interval 1: 17:15



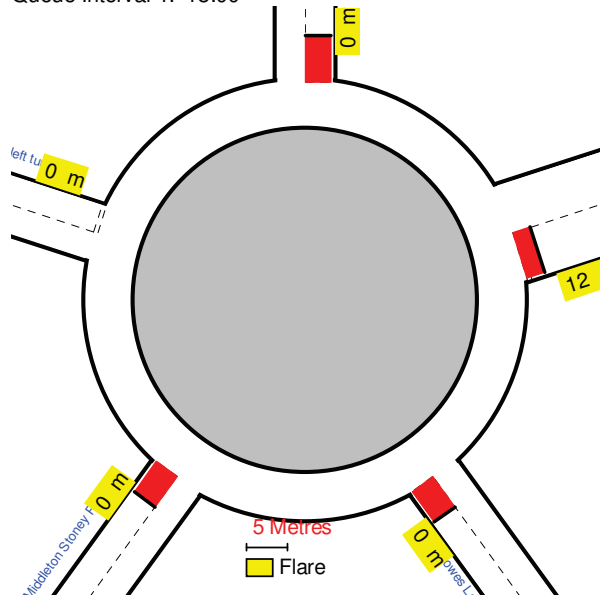
Queue Interval 2: 17:30



Queue Interval 3: 17:45

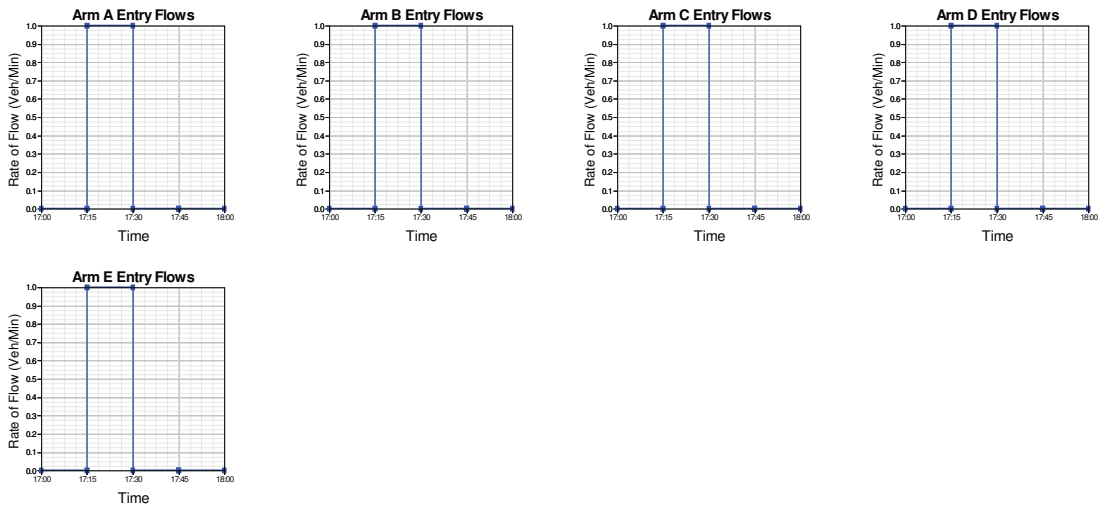


Queue Interval 4: 18:00



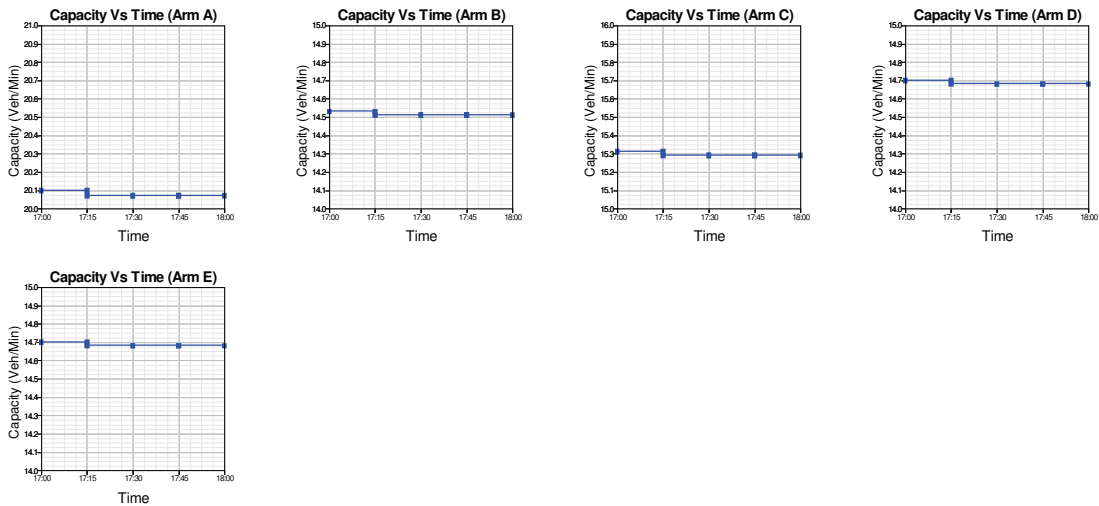
## Demand Data Graphs

### Direct Entry/Exit Flows for Demand Set: 2012 Base Model



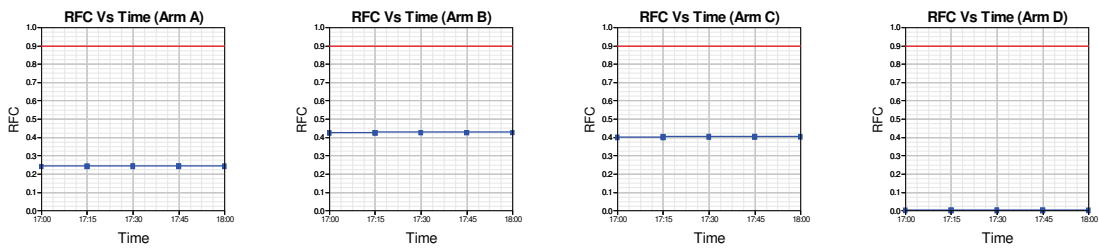
### Capacity (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

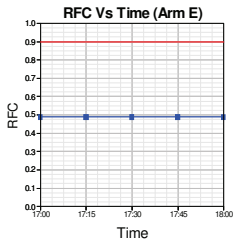
(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### RFC (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

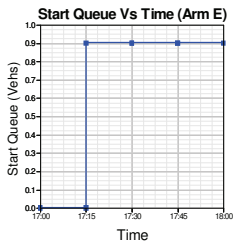
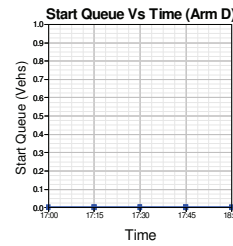
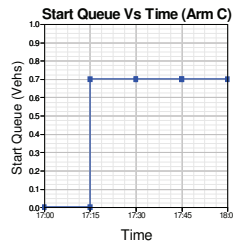
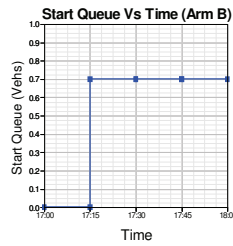
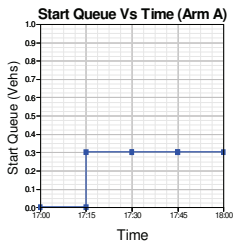
(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)





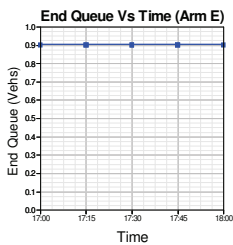
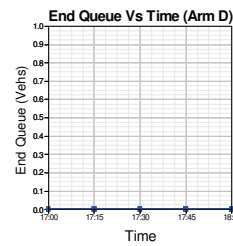
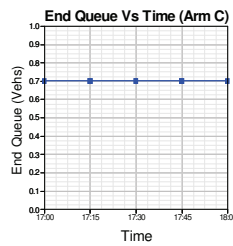
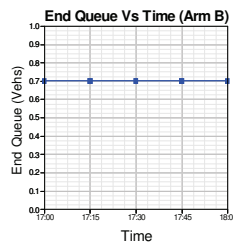
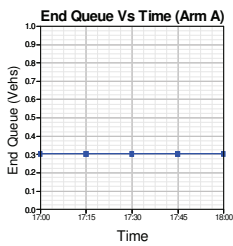
### Start Queue (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



### End Queue (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)

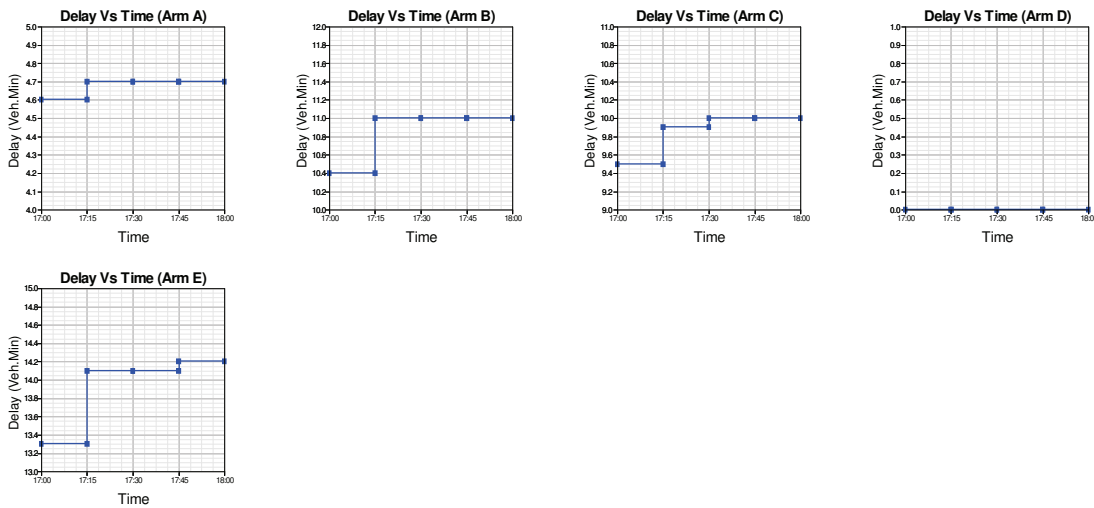


## Geometric Delay Graph

No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

## Delay (against Time) Graphs, for each 15min Interval (17:00 - 18:00)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



## Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
<b>Segment : 1 - 17:00 to 17:15</b>	A	4.83	20.10	0.240	-	0.0	0.3	4.6	-	0.065
	B	6.16	14.53	0.424	-	0.0	0.7	10.4	-	0.118
	C	6.13	15.31	0.400	-	0.0	0.7	9.5	-	0.108
	D	0.02	14.70	0.001	-	0.0	0.0	0.0	-	0.068
	E	7.15	14.70	0.486	-	0.0	0.9	13.3	-	0.130
<b>Segment : 2 - 17:15 to 17:30</b>	A	4.83	20.07	0.241	-	0.3	0.3	4.7	-	0.066
	B	6.16	14.51	0.425	-	0.7	0.7	11.0	-	0.120
	C	6.13	15.29	0.401	-	0.7	0.7	9.9	-	0.109
	D	0.02	14.68	0.001	-	0.0	0.0	0.0	-	0.068
	E	7.15	14.68	0.487	-	0.9	0.9	14.1	-	0.133
<b>Segment : 3 - 17:30 to 17:45</b>	A	4.83	20.07	0.241	-	0.3	0.3	4.7	-	0.066
	B	6.16	14.51	0.425	-	0.7	0.7	11.0	-	0.120
	C	6.13	15.29	0.401	-	0.7	0.7	10.0	-	0.109
	D	0.02	14.68	0.001	-	0.0	0.0	0.0	-	0.068
	E	7.15	14.68	0.487	-	0.9	0.9	14.1	-	0.133
<b>Segment : 4 - 17:45 to 18:00</b>	A	4.83	20.07	0.241	-	0.3	0.3	4.7	-	0.066
	B	6.16	14.51	0.425	-	0.7	0.7	11.0	-	0.120
	C	6.13	15.29	0.401	-	0.7	0.7	10.0	-	0.109
	D	0.02	14.68	0.001	-	0.0	0.0	0.0	-	0.068
	E	7.15	14.68	0.487	-	0.9	0.9	14.2	-	0.133

### Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
<b>A</b>	289.8	289.8	18.8	0.06	18.8	0.06
<b>B</b>	369.6	369.6	43.4	0.12	43.4	0.12
<b>C</b>	367.8	367.8	39.4	0.11	39.4	0.11
<b>D</b>	1.2	1.2	0.1	0.07	0.1	0.07
<b>E</b>	429.0	429.0	55.7	0.13	55.7	0.13
<b>ALL</b>	1457.4	1457.4	157.4	0.11	157.5	0.11

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.

These will only be significantly different if there is a large queue remaining at the end of the time period.

### Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

### Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.