

# **Norwich Western Link**

## **Transport Assessment - Appendix 11 – Junction Model Results**

### **Sub Appendix 11i – Junction 12a A47 SB Slip/ William Frost Way/ Dereham Road grade separated junction and Junction 12b A47 NB Slip/ Dereham Road/ Long Lane grade separated junction**

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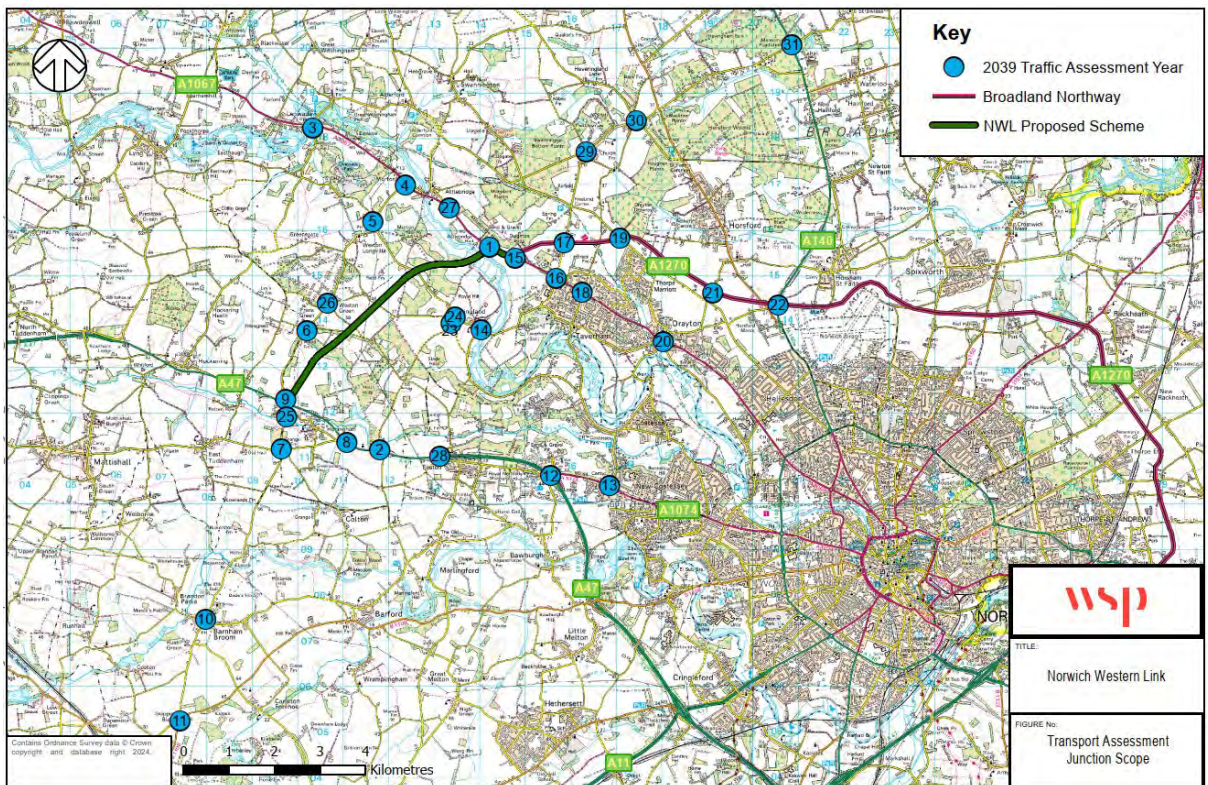
# 1 Junction Model Results

1.1.1 Junctions 10 modelling software output file that shows the junction capacity results for Junction 12a and Junction 12b of the TA.

1.1.2 We have included a summary of key information shown in this document in an accessible format. However, some users may not be able to access all technical details. If you require this document in a more accessible format please contact [norwichwesternlink@norfolk.gov.uk](mailto:norwichwesternlink@norfolk.gov.uk)

1.1.3 The TA scope map is shown below as a location plan.

**Figure 1-1 Junction Assessment Scope**



1.1.4 The model results are presented for 2029 and 2039 future assessment years for AM and PM peak hours, taking 7.30-8.30am and AM peak and 5pm-6pm as PM peak.

#### 1.1.5 The scenarios tested are as follows:

- Do Minimum – the baseline future situation with committed developments and planned highway improvements but without the Proposed Scheme.
- Do Something - the baseline future situation with the Proposed Scheme.
- Do Something + Mitigation - the baseline future situation with the Proposed Scheme added plus a package of traffic mitigation measures in the wider network (north of A1067 and south of A47 plus Honingham Lane closure).

**J12a - A47 SB Slip/ William Frost Way/ Dereham Road grade separated junction and J12b A47 NB Slip/ Dereham Road/ Long Lane grade separated junction Results**

<b>Junctions 10</b>
<b>ARCADY 10 - Roundabout Module</b>
Version: 10.0.1.1519 © Copyright TRL Software Limited, 2021
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<b>The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution</b>

**Filename:** 12a.j10

**Path:** \\corp.pbwan.net\NNN\_Projects\70118686-70061370-Norwich Western Link 2019 20\04 Record of Issue\4A Internal WSP Doc Registers\20240129\_Model Reports(wo 2044)\J12\J12a

**Report generation date:** 29/01/2024 17:16:08

- »2029DM, AM
- »2029DM, PM
- »2029DS, AM
- »2029DS, PM
- »2029DS\_Mitigation, AM
- »2029DS\_Mitigation, PM
- »2039DM, AM
- »2039DM, PM
- »2039DS, AM
- »2039DS, PM
- »2039DS\_Mitigation, AM
- »2039DS\_Mitigation, PM

## Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2029DM</b>										
A - William Frost Way	D1	1.8	6.64	0.63	A	D2	0.9	3.62	0.49	A
B - Dereham Road		105.3	189.52	1.12	F		4.9	11.72	0.83	B
D - Connector Link		0.3	1.98	0.25	A		0.3	2.20	0.25	A
E - A47 SB Off slip		0.7	4.14	0.40	A		0.4	3.56	0.27	A
<b>2029DS</b>										
A - William Frost Way	D3	1.6	5.96	0.60	A	D4	0.9	3.38	0.46	A
B - Dereham Road		24.1	56.58	0.99	F		2.8	7.32	0.74	A
D - Connector Link		0.3	1.93	0.23	A		0.3	2.15	0.25	A
E - A47 SB Off slip		0.6	3.74	0.39	A		0.4	3.47	0.26	A
<b>2029DS_Mitigation</b>										
A - William Frost Way	D5	1.6	5.82	0.59	A	D6	0.8	3.36	0.46	A
B - Dereham Road		23.3	54.98	0.99	F		2.9	7.39	0.74	A
D - Connector Link		0.3	1.93	0.23	A		0.3	2.17	0.25	A
E - A47 SB Off slip		0.6	3.65	0.37	A		0.3	3.43	0.25	A
<b>2039DM</b>										
A - William Frost Way	D7	1.8	6.55	0.63	A	D8	1.0	3.76	0.50	A
B - Dereham Road		94.7	171.19	1.11	F		7.0	16.31	0.88	C
D - Connector Link		0.3	1.96	0.25	A		0.3	2.20	0.26	A
E - A47 SB Off slip		0.7	4.02	0.39	A		0.4	3.62	0.28	A
<b>2039DS</b>										
A - William Frost Way	D9	1.6	6.23	0.61	A	D10	0.9	3.58	0.49	A
B - Dereham Road		22.4	53.36	0.99	F		3.9	9.65	0.80	A
D - Connector Link		0.3	1.93	0.23	A		0.3	2.11	0.23	A
E - A47 SB Off slip		0.7	3.93	0.41	A		0.4	3.64	0.31	A
<b>2039DS_Mitigation</b>										
A - William Frost Way	D11	1.7	6.26	0.61	A	D12	0.9	3.55	0.48	A
B - Dereham Road		24.9	58.50	0.99	F		3.9	9.64	0.80	A
D - Connector Link		0.3	1.94	0.23	A		0.3	2.12	0.23	A
E - A47 SB Off slip		0.7	3.89	0.40	A		0.4	3.60	0.30	A

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

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

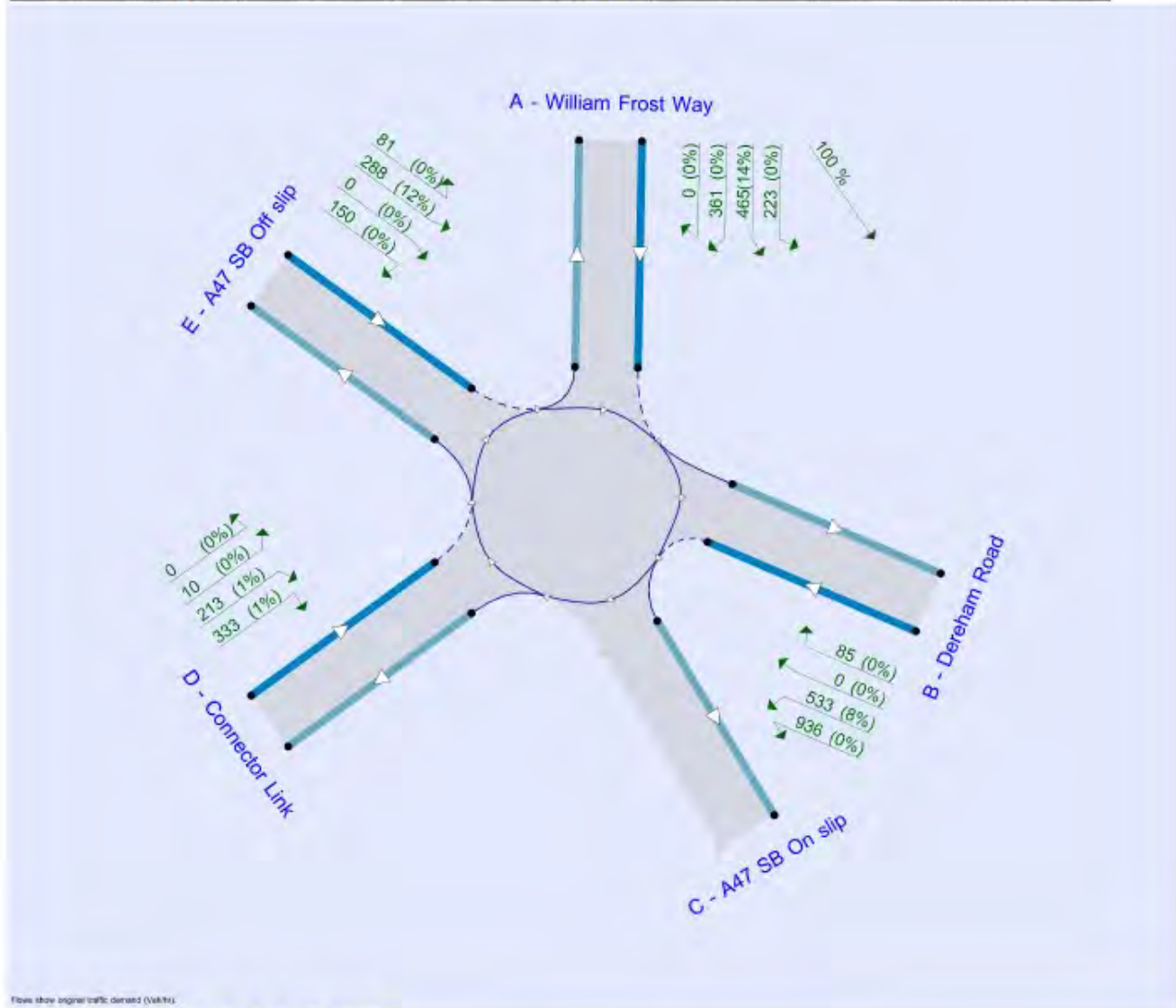
## File summary

### File Description

Title	A47 SB Slip/ William Frost Way/ Dereham Road
Location	52.65086442026539, 1.1861274682592418
Site number	J12a
Date	26/04/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INAL03507
Description	

**Units**

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



Flows show original traffic demand (Veh/hr)

The junction diagram reflects the last run of Junctions.

**Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	38.00	20.00		500



### Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029DM	AM	ONE HOUR	07:15	08:45	15	✓
D2	2029DM	PM	ONE HOUR	16:45	18:15	15	✓
D3	2029DS	AM	ONE HOUR	07:15	08:45	15	✓
D4	2029DS	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓
D6	2029DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓
D7	2039DM	AM	ONE HOUR	07:15	08:45	15	✓
D8	2039DM	PM	ONE HOUR	16:45	18:15	15	✓
D9	2039DS	AM	ONE HOUR	07:15	08:45	15	✓
D10	2039DS	PM	ONE HOUR	16:45	18:15	15	✓
D11	2039DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓
D12	2039DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

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

# 2029DM, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	82.01	F

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	82.01	F

## Arms

### Arms

Arm	Name	Description	No give-way line
A	William Frost Way		
B	Dereham Road		
C	A47 SB On slip		
D	Connector Link		
E	A47 SB Off slip		

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
A - William Frost Way	7.30	8.08	1.4	17.6	55.0	19.0		
B - Dereham Road	6.45	10.17	30.7	21.4	55.0	35.0		
C - A47 SB On slip								✓
D - Connector Link	6.13	9.44	14.7	19.2	55.0	22.0		
E - A47 SB Off slip	6.67	9.43	2.2	19.6	55.0	60.0		

### Bypass

Arm	Arm has bypass	Bypass utilisation (%)
A - William Frost Way	✓	100
B - Dereham Road		
C - A47 SB On slip		
D - Connector Link		
E - A47 SB Off slip		

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - William Frost Way	0.715	2388
B - Dereham Road	0.787	2727
C - A47 SB On slip		
D - Connector Link	0.738	2504
E - A47 SB Off slip	0.603	1980

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029DM	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1049	100.000
B - Dereham Road		ONE HOUR	✓	1554	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	555	100.000
E - A47 SB Off slip		ONE HOUR	✓	519	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	223	465	381	0
	B - Dereham Road	85	0	936	533	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	10	213	333	0	0
	E - A47 SB Off slip	81	288	0	150	0

### Proportions

From		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	0.00	0.21	0.44	0.34
	B - Dereham Road	0.05	0.00	0.60	0.34
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.02	0.38	0.60	0.00
	E - A47 SB Off slip	0.16	0.55	0.00	0.29

## Vehicle Mix

### Heavy Vehicle Percentages

From		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	0	14	0	0
	B - Dereham Road	0	0	0	8	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	1	1	0	0
	E - A47 SB Off slip	0	12	0	0	0

### Average PCU Per Veh

From		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.002	1.138	1.000
	B - Dereham Road	1.000	1.000	1.001	1.080
	C - A47 SB On slip	1.000	1.000	1.000	1.000
	D - Connector Link	1.000	1.005	1.006	1.000
	E - A47 SB Off slip	1.000	1.122	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - William Frost Way	790	838
	B - Dereham Road	1170	1203
	C - A47 SB On slip	0	0
	D - Connector Link	418	420
	E - A47 SB Off slip	391	417
07:30-07:45	A - William Frost Way	943	1001
	B - Dereham Road	1397	1436
	C - A47 SB On slip	0	0
	D - Connector Link	499	502
	E - A47 SB Off slip	467	498
07:45-08:00	A - William Frost Way	1155	1226
	B - Dereham Road	1711	1759
	C - A47 SB On slip	0	0
	D - Connector Link	611	615
	E - A47 SB Off slip	572	610
08:00-08:15	A - William Frost Way	1155	1226
	B - Dereham Road	1711	1759
	C - A47 SB On slip	0	0
	D - Connector Link	611	615
	E - A47 SB Off slip	572	610
08:15-08:30	A - William Frost Way	943	1001
	B - Dereham Road	1397	1436
	C - A47 SB On slip	0	0
	D - Connector Link	499	502
	E - A47 SB Off slip	467	498
08:30-08:45	A - William Frost Way	790	838
	B - Dereham Road	1170	1203
	C - A47 SB On slip	0	0
	D - Connector Link	418	420
	E - A47 SB Off slip	391	417

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.63	6.64	1.8	A	1022	1225
B - Dereham Road	1.12	189.52	105.3	F	1486	2199
C - A47 SB On slip						
D - Connector Link	0.25	1.98	0.3	A	513	769
E - A47 SB Off slip	0.40	4.14	0.7	A	509	763

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	838	670	168	168	0	768	1820	0.368	668	132	0.0	0.6	3.359	
B - Dereham Road	1203	1203	301	0	168	1032	1936	0.621	1196	403	0.0	1.7	4.962	
C - A47 SB On slip						879				1349				
D - Connector Link	420	420	105	0	0	64	2457	0.171	420	815	0.0	0.2	1.777	
E - A47 SB Off slip	417	417	104	0	0	484	1669	0.250	416	0	0.0	0.4	3.086	

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	1001	800	200	201	0	918	1712	0.467	799	158	0.6	0.9	4.241	
B - Dereham Road	1436	1436	359	0	201	1235	1780	0.807	1427	483	1.7	4.1	10.211	
C - A47 SB On slip						1049				1612				
D - Connector Link	502	502	126	0	0	76	2448	0.205	502	973	0.2	0.3	1.880	
E - A47 SB Off slip	498	498	125	0	0	578	1612	0.309	498	0	0.4	0.5	3.448	

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	1226	980	245	246	0	1124	1565	0.626	977	182	0.9	1.8	6.557	
B - Dereham Road	1759	1759	440	0	246	1510	1569	1.121	1550	591	4.1	56.4	79.698	
C - A47 SB On slip						1203				1857				
D - Connector Link	615	615	154	0	0	83	2443	0.252	615	1120	0.3	0.3	1.960	
E - A47 SB Off slip	610	610	153	0	0	697	1540	0.396	609	0	0.5	0.7	4.128	

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	1226	980	245	246	0	1125	1564	0.627	980	183	1.8	1.8	6.636	
B - Dereham Road	1759	1759	440	0	246	1514	1568	1.124	1564	591	56.4	105.3	189.517	
C - A47 SB On slip						1210				1868				
D - Connector Link	615	615	154	0	0	83	2442	0.252	615	1127	0.3	0.3	1.981	
E - A47 SB Off slip	610	610	153	0	0	698	1539	0.396	610	0	0.7	0.7	4.137	

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	1001	800	200	201	0	920	1711	0.468	803	175	1.8	1.0	4.289	
B - Dereham Road	1436	1436	359	0	201	1240	1776	0.809	1759	484	105.3	24.7	136.141	
C - A47 SB On slip						1189				1810				
D - Connector Link	502	502	126	0	0	94	2434	0.206	502	1095	0.3	0.3	1.873	
E - A47 SB Off slip	498	498	125	0	0	596	1601	0.311	499	0	0.7	0.5	3.494	

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	838	670	168	168	0	770	1818	0.369	671	137	1.0	0.6	3.388	
B - Dereham Road	1203	1203	301	0	168	1037	1932	0.623	1295	405	24.7	1.7	6.706	
C - A47 SB On slip						921				1410				
D - Connector Link	420	420	105	0	0	69	2453	0.171	421	852	0.3	0.2	1.783	
E - A47 SB Off slip	417	417	104	0	0	490	1665	0.251	418	0	0.5	0.4	3.085	



# 2029DM, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	6.80	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.80	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2029DM	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1093	100.000
B - Dereham Road		ONE HOUR	✓	1400	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	506	100.000
E - A47 SB Off slip		ONE HOUR	✓	343	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
	A - William Frost Way	0	237	707	149	0
	B - Dereham Road	349	0	679	372	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	239	128	139	0	0
	E - A47 SB Off slip	76	249	0	18	0

### Proportions

From		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
	A - William Frost Way	0.00	0.22	0.65	0.14
	B - Dereham Road	0.25	0.00	0.49	0.27
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.47	0.25	0.27	0.00
	E - A47 SB Off slip	0.22	0.73	0.00	0.05

## Vehicle Mix

### Heavy Vehicle Percentages

From	To				
	A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
A - William Frost Way	0	3	0	0	0
B - Dereham Road	0	0	1	3	0
C - A47 SB On slip	0	0	0	0	0
D - Connector Link	0	3	1	0	0
E - A47 SB Off slip	0	0	0	0	0

### Average PCU Per Veh

From	To			
	A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
A - William Frost Way	1.000	1.025	1.004	1.000
B - Dereham Road	1.001	1.000	1.009	1.027
C - A47 SB On slip	1.000	1.000	1.000	1.000
D - Connector Link	1.000	1.031	1.014	1.000
E - A47 SB Off slip	1.000	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - William Frost Way	823	829
	B - Dereham Road	1054	1066
	C - A47 SB On slip	0	0
	D - Connector Link	381	385
	E - A47 SB Off slip	258	258
17:00-17:15	A - William Frost Way	983	990
	B - Dereham Road	1259	1273
	C - A47 SB On slip	0	0
	D - Connector Link	455	460
	E - A47 SB Off slip	308	308
17:15-17:30	A - William Frost Way	1203	1213
	B - Dereham Road	1541	1559
	C - A47 SB On slip	0	0
	D - Connector Link	557	564
	E - A47 SB Off slip	378	378
17:30-17:45	A - William Frost Way	1203	1213
	B - Dereham Road	1541	1559
	C - A47 SB On slip	0	0
	D - Connector Link	557	564
	E - A47 SB Off slip	378	378
17:45-18:00	A - William Frost Way	983	990
	B - Dereham Road	1259	1273
	C - A47 SB On slip	0	0
	D - Connector Link	455	460
	E - A47 SB Off slip	308	308
18:00-18:15	A - William Frost Way	823	829
	B - Dereham Road	1054	1066
	C - A47 SB On slip	0	0
	D - Connector Link	381	385
	E - A47 SB Off slip	258	258



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.49	3.62	0.9	A	1011	1182
B - Dereham Road	0.83	11.72	4.9	B	1300	1949
C - A47 SB On slip						
D - Connector Link	0.25	2.20	0.3	A	470	705
E - A47 SB Off slip	0.27	3.56	0.4	A	315	472

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	829	646	162	183	0	405	2079	0.311	645	499	0.0	0.5	2.514	
B - Dereham Road	1066	1066	267	0	183	784	2141	0.498	1062	286	0.0	1.0	3.364	
C - A47 SB On slip						674				1152				
D - Connector Link	385	385	96	0	0	282	2310	0.167	385	412	0.0	0.2	1.891	
E - A47 SB Off slip	258	258	65	0	0	647	1570	0.164	257	0	0.0	0.2	2.740	

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	990	772	193	218	0	485	2022	0.382	771	596	0.5	0.6	2.886	
B - Dereham Road	1273	1273	318	0	218	914	2026	0.628	1270	342	1.0	1.7	4.804	
C - A47 SB On slip						806				1378				
D - Connector Link	460	460	115	0	0	313	2273	0.203	460	493	0.2	0.3	2.009	
E - A47 SB Off slip	308	308	77	0	0	773	1494	0.206	308	0	0.2	0.3	3.035	

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1213	945	236	268	0	594	1944	0.486	944	728	0.6	0.9	3.606	
B - Dereham Road	1559	1559	390	0	268	1119	1889	0.834	1547	419	1.7	4.8	10.935	
C - A47 SB On slip						983				1684				
D - Connector Link	564	564	141	0	0	382	2222	0.254	563	601	0.3	0.3	2.195	
E - A47 SB Off slip	378	378	94	0	0	945	1391	0.272	377	0	0.3	0.4	3.550	

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1213	945	236	268	0	595	1943	0.486	945	731	0.9	0.9	3.616	
B - Dereham Road	1559	1559	390	0	268	1120	1888	0.835	1559	419	4.8	4.9	11.721	
C - A47 SB On slip						989				1690				
D - Connector Link	564	564	141	0	0	384	2220	0.254	564	604	0.3	0.3	2.198	
E - A47 SB Off slip	378	378	94	0	0	948	1389	0.272	378	0	0.4	0.4	3.560	

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	990	772	193	218	0	486	2021	0.382	773	601	0.9	0.6	2.895	
B - Dereham Road	1273	1273	318	0	218	916	2024	0.629	1286	343	4.9	1.7	5.017	
C - A47 SB On slip						814				1388				
D - Connector Link	460	460	115	0	0	317	2270	0.203	461	497	0.3	0.3	2.013	
E - A47 SB Off slip	308	308	77	0	0	778	1491	0.207	309	0	0.4	0.3	3.044	

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	829	646	162	183	0	407	2078	0.311	647	501	0.6	0.5	2.528	
B - Dereham Road	1066	1066	267	0	183	787	2139	0.499	1069	287	1.7	1.0	3.413	
C - A47 SB On slip						678				1158				
D - Connector Link	385	385	96	0	0	264	2309	0.167	386	414	0.3	0.2	1.892	
E - A47 SB Off slip	258	258	65	0	0	649	1569	0.165	258	0	0.3	0.2	2.747	

# 2029DS, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	25.04	D

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	25.04	D

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2029DS	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1046	100.000
B - Dereham Road		ONE HOUR	✓	1381	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	500	100.000
E - A47 SB Off slip		ONE HOUR	✓	547	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	223	462	361	0
	B - Dereham Road	93	0	890	399	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	10	177	313	0	0
	E - A47 SB Off slip	98	276	0	173	0

### Proportions

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	0.00	0.21	0.44	0.35
	B - Dereham Road	0.07	0.00	0.64	0.29
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.02	0.35	0.63	0.00
	E - A47 SB Off slip	0.18	0.50	0.00	0.32

## Vehicle Mix

### Heavy Vehicle Percentages

From	To				
	A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
A - William Frost Way	0	0	14	0	0
B - Dereham Road	0	0	0	7	0
C - A47 SB On slip	0	0	0	0	0
D - Connector Link	0	1	0	0	0
E - A47 SB Off slip	0	0	0	0	0

### Average PCU Per Veh

From	To			
	A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
A - William Frost Way	1.000	1.000	1.139	1.000
B - Dereham Road	1.000	1.000	1.001	1.067
C - A47 SB On slip	1.000	1.003	1.000	1.000
D - Connector Link	1.000	1.006	1.003	1.000
E - A47 SB Off slip	1.000	1.004	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - William Frost Way	787	835
	B - Dereham Road	1040	1061
	C - A47 SB On slip	0	0
	D - Connector Link	376	378
	E - A47 SB Off slip	412	412
07:30-07:45	A - William Frost Way	940	998
	B - Dereham Road	1242	1267
	C - A47 SB On slip	0	0
	D - Connector Link	449	451
	E - A47 SB Off slip	492	493
07:45-08:00	A - William Frost Way	1151	1222
	B - Dereham Road	1521	1551
	C - A47 SB On slip	0	0
	D - Connector Link	550	553
	E - A47 SB Off slip	602	603
08:00-08:15	A - William Frost Way	1151	1222
	B - Dereham Road	1521	1551
	C - A47 SB On slip	0	0
	D - Connector Link	550	553
	E - A47 SB Off slip	602	603
08:15-08:30	A - William Frost Way	940	998
	B - Dereham Road	1242	1267
	C - A47 SB On slip	0	0
	D - Connector Link	449	451
	E - A47 SB Off slip	492	493
08:30-08:45	A - William Frost Way	787	835
	B - Dereham Road	1040	1061
	C - A47 SB On slip	0	0
	D - Connector Link	376	378
	E - A47 SB Off slip	412	412

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.60	5.96	1.6	A	1018	1221
B - Dereham Road	0.99	56.58	24.1	F	1293	1940
C - A47 SB On slip						
D - Connector Link	0.23	1.93	0.3	A	461	691
E - A47 SB Off slip	0.39	3.74	0.6	A	503	754

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	835	668	167	168	0	708	1863	0.358	665	150	0.0	0.6	3.233	
B - Dereham Road	1061	1061	265	0	168	1031	1936	0.548	1056	342	0.0	1.2	4.149	
C - A47 SB On slip						789				1298				
D - Connector Link	378	378	94	0	0	69	2452	0.154	377	719	0.0	0.2	1.741	
E - A47 SB Off slip	412	412	103	0	0	447	1691	0.244	411	0	0.0	0.3	2.816	

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	998	797	199	200	0	847	1763	0.452	796	180	0.6	0.9	4.006	
B - Dereham Road	1267	1267	317	0	200	1234	1781	0.711	1262	409	1.2	2.4	7.014	
C - A47 SB On slip						943				1552				
D - Connector Link	451	451	113	0	0	83	2442	0.185	451	880	0.2	0.2	1.814	
E - A47 SB Off slip	493	493	123	0	0	534	1638	0.301	492	0	0.3	0.4	3.147	

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1222	976	244	245	0	1037	1628	0.600	974	217	0.9	1.6	5.905	
B - Dereham Road	1551	1551	388	0	245	1509	1569	0.989	1491	501	2.4	17.5	33.934	
C - A47 SB On slip						1135				1866				
D - Connector Link	553	553	138	0	0	98	2431	0.227	552	1037	0.2	0.3	1.924	
E - A47 SB Off slip	603	603	151	0	0	651	1668	0.385	602	0	0.4	0.6	3.732	

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1222	976	244	245	0	1037	1627	0.600	976	219	1.6	1.6	5.962	
B - Dereham Road	1551	1551	388	0	245	1513	1567	0.990	1525	501	17.5	24.1	56.583	
C - A47 SB On slip						1149				1889				
D - Connector Link	553	553	138	0	0	100	2430	0.228	553	1048	0.3	0.3	1.925	
E - A47 SB Off slip	603	603	151	0	0	653	1668	0.385	603	0	0.6	0.6	3.743	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	998	797	199	200	0	848	1762	0.452	800	186	1.6	0.9	4.043	
B - Dereham Road	1267	1267	317	0	200	1238	1777	0.713	1353	410	24.1	2.6	10.469	
C - A47 SB On slip						979				1612				
D - Connector Link	451	451	113	0	0	89	2438	0.185	452	890	0.3	0.2	1.819	
E - A47 SB Off slip	493	493	123	0	0	541	1634	0.301	493	0	0.6	0.4	3.162	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	835	668	167	168	0	710	1881	0.359	669	151	0.9	0.6	3.256	
B - Dereham Road	1061	1061	285	0	168	1036	1932	0.549	1066	343	2.6	1.3	4.266	
C - A47 SB On slip						795				1307				
D - Connector Link	378	378	94	0	0	70	2452	0.154	378	724	0.2	0.2	1.745	
E - A47 SB Off slip	412	412	103	0	0	448	1690	0.244	413	0	0.4	0.3	2.827	

# 2029DS, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	4.76	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.76	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2029DS	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1091	100.000
B - Dereham Road		ONE HOUR	✓	1260	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	495	100.000
E - A47 SB Off slip		ONE HOUR	✓	336	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	263	681	147	0
	B - Dereham Road	331	0	639	290	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	243	125	127	0	0
	E - A47 SB Off slip	102	210	0	24	0

### Proportions

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	0.00	0.24	0.62	0.13
	B - Dereham Road	0.26	0.00	0.51	0.23
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.49	0.25	0.26	0.00
	E - A47 SB Off slip	0.30	0.63	0.00	0.07

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	2	0	0	0
	B - Dereham Road	0	0	1	2	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	3	0	0	0
	E - A47 SB Off slip	0	0	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.023	1.004	1.000
	B - Dereham Road	1.001	1.000	1.009	1.024
	C - A47 SB On slip	1.000	1.002	1.000	1.000
	D - Connector Link	1.000	1.032	1.000	1.000
	E - A47 SB Off slip	1.000	1.001	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - William Frost Way	821	828
	B - Dereham Road	949	959
	C - A47 SB On slip	0	0
	D - Connector Link	373	376
	E - A47 SB Off slip	253	253
17:00-17:15	A - William Frost Way	981	988
	B - Dereham Road	1133	1145
	C - A47 SB On slip	0	0
	D - Connector Link	445	449
	E - A47 SB Off slip	302	302
17:15-17:30	A - William Frost Way	1201	1211
	B - Dereham Road	1387	1402
	C - A47 SB On slip	0	0
	D - Connector Link	545	549
	E - A47 SB Off slip	370	370
17:30-17:45	A - William Frost Way	1201	1211
	B - Dereham Road	1387	1402
	C - A47 SB On slip	0	0
	D - Connector Link	545	549
	E - A47 SB Off slip	370	370
17:45-18:00	A - William Frost Way	981	988
	B - Dereham Road	1133	1145
	C - A47 SB On slip	0	0
	D - Connector Link	445	449
	E - A47 SB Off slip	302	302
18:00-18:15	A - William Frost Way	821	828
	B - Dereham Road	949	959
	C - A47 SB On slip	0	0
	D - Connector Link	373	376
	E - A47 SB Off slip	253	253



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.46	3.38	0.9	A	1009	1143
B - Dereham Road	0.74	7.32	2.8	A	1169	1753
C - A47 SB On slip						
D - Connector Link	0.25	2.15	0.3	A	458	687
E - A47 SB Off slip	0.26	3.47	0.4	A	309	463

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	628	625	156	203	0	368	2105	0.297	624	508	0.0	0.4	2.435	
B - Dereham Road	959	959	240	0	203	737	2162	0.443	955	255	0.0	0.8	3.009	
C - A47 SB On slip						600				1093				
D - Connector Link	376	376	94	0	0	249	2320	0.162	375	351	0.0	0.2	1.865	
E - A47 SB Off slip	253	253	63	0	0	624	1584	0.160	252	0	0.0	0.2	2.703	

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	988	747	187	242	0	440	2054	0.364	746	607	0.4	0.6	2.759	
B - Dereham Road	1145	1145	288	0	242	882	2051	0.558	1143	305	0.8	1.3	4.000	
C - A47 SB On slip						718				1307				
D - Connector Link	449	449	112	0	0	297	2284	0.196	448	420	0.2	0.2	1.976	
E - A47 SB Off slip	302	302	76	0	0	746	1511	0.200	302	0	0.2	0.2	2.980	

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1211	914	229	296	0	539	1983	0.461	913	743	0.6	0.9	3.373	
B - Dereham Road	1402	1402	351	0	296	1079	1899	0.738	1396	373	1.3	2.8	7.147	
C - A47 SB On slip						877				1598				
D - Connector Link	549	549	137	0	0	363	2236	0.246	549	514	0.2	0.3	2.151	
E - A47 SB Off slip	370	370	93	0	0	912	1410	0.263	370	0	0.2	0.4	3.460	

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1211	914	229	296	0	540	1983	0.461	914	745	0.9	0.9	3.379	
B - Dereham Road	1402	1402	351	0	296	1081	1898	0.739	1402	374	2.8	2.8	7.324	
C - A47 SB On slip						880				1602				
D - Connector Link	549	549	137	0	0	365	2235	0.246	549	515	0.3	0.3	2.153	
E - A47 SB Off slip	370	370	93	0	0	914	1409	0.263	370	0	0.4	0.4	3.467	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	988	747	187	242	0	441	2053	0.364	748	610	0.9	0.6	2.770	
B - Dereham Road	1145	1145	286	0	242	884	2049	0.559	1151	305	2.8	1.3	4.077	
C - A47 SB On slip						722				1313				
D - Connector Link	449	449	112	0	0	300	2283	0.197	449	422	0.3	0.2	1.978	
E - A47 SB Off slip	302	302	76	0	0	748	1509	0.200	303	0	0.4	0.3	2.986	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	828	625	156	203	0	369	2104	0.297	626	510	0.6	0.4	2.442	
B - Dereham Road	959	959	240	0	203	740	2160	0.444	961	256	1.3	0.8	3.040	
C - A47 SB On slip						603				1097				
D - Connector Link	376	376	94	0	0	250	2319	0.162	376	353	0.2	0.2	1.869	
E - A47 SB Off slip	253	253	63	0	0	626	1583	0.160	253	0	0.3	0.2	2.711	

# 2029DS\_Mitigation, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	24.48	C

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	24.48	C

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1048	100.000
B - Dereham Road		ONE HOUR	✓	1380	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	502	100.000
E - A47 SB Off slip		ONE HOUR	✓	521	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	223	462	361	0
	B - Dereham Road	94	0	896	390	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	10	179	313	0	0
	E - A47 SB Off slip	95	257	0	169	0

### Proportions

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	0.00	0.21	0.44	0.35
	B - Dereham Road	0.07	0.00	0.65	0.28
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.02	0.36	0.62	0.00
	E - A47 SB Off slip	0.18	0.49	0.00	0.33

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	0	14	0	0
	B - Dereham Road	0	0	0	7	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	1	0	0	0
	E - A47 SB Off slip	0	0	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.000	1.139	1.000
	B - Dereham Road	1.000	1.000	1.001	1.068
	C - A47 SB On slip	1.000	1.003	1.000	1.000
	D - Connector Link	1.000	1.006	1.003	1.000
	E - A47 SB Off slip	1.000	1.004	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - William Frost Way	787	835
	B - Dereham Road	1039	1060
	C - A47 SB On slip	0	0
	D - Connector Link	378	380
	E - A47 SB Off slip	392	393
07:30-07:45	A - William Frost Way	940	998
	B - Dereham Road	1241	1266
	C - A47 SB On slip	0	0
	D - Connector Link	451	453
	E - A47 SB Off slip	469	470
07:45-08:00	A - William Frost Way	1151	1222
	B - Dereham Road	1520	1550
	C - A47 SB On slip	0	0
	D - Connector Link	553	555
	E - A47 SB Off slip	574	575
08:00-08:15	A - William Frost Way	1151	1222
	B - Dereham Road	1520	1550
	C - A47 SB On slip	0	0
	D - Connector Link	553	555
	E - A47 SB Off slip	574	575
08:15-08:30	A - William Frost Way	940	998
	B - Dereham Road	1241	1266
	C - A47 SB On slip	0	0
	D - Connector Link	451	453
	E - A47 SB Off slip	469	470
08:30-08:45	A - William Frost Way	787	835
	B - Dereham Road	1039	1060
	C - A47 SB On slip	0	0
	D - Connector Link	378	380
	E - A47 SB Off slip	392	393

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.59	5.82	1.6	A	1018	1221
B - Dereham Road	0.99	54.98	23.3	F	1292	1938
C - A47 SB On slip						
D - Connector Link	0.23	1.93	0.3	A	463	694
E - A47 SB Off slip	0.37	3.65	0.6	A	479	719

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	835	668	167	168	0	692	1874	0.356	665	149	0.0	0.6	3.206	
B - Dereham Road	1060	1060	265	0	168	1029	1938	0.547	1055	329	0.0	1.2	4.138	
C - A47 SB On slip						781				1303				
D - Connector Link	380	380	95	0	0	70	2452	0.155	379	711	0.0	0.2	1.743	
E - A47 SB Off slip	393	393	98	0	0	449	1689	0.233	392	0	0.0	0.3	2.778	

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	998	797	199	200	0	828	1776	0.449	796	178	0.6	0.9	3.954	
B - Dereham Road	1266	1266	316	0	200	1231	1783	0.710	1261	394	1.2	2.4	6.971	
C - A47 SB On slip						934				1558				
D - Connector Link	453	453	113	0	0	84	2442	0.188	453	850	0.2	0.2	1.817	
E - A47 SB Off slip	470	470	117	0	0	537	1636	0.287	469	0	0.3	0.4	3.090	

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1222	976	244	245	0	1014	1644	0.594	974	214	0.9	1.6	5.769	
B - Dereham Road	1550	1550	388	0	245	1506	1572	0.986	1492	482	2.4	17.1	33.324	
C - A47 SB On slip						1124				1874				
D - Connector Link	555	555	139	0	0	99	2430	0.228	555	1025	0.2	0.3	1.927	
E - A47 SB Off slip	575	575	144	0	0	654	1666	0.367	574	0	0.4	0.6	3.637	

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1222	976	244	245	0	1015	1643	0.594	976	217	1.6	1.6	5.820	
B - Dereham Road	1550	1550	388	0	245	1509	1569	0.988	1526	482	17.1	23.3	54.977	
C - A47 SB On slip						1138				1897				
D - Connector Link	555	555	139	0	0	102	2429	0.229	555	1036	0.3	0.3	1.929	
E - A47 SB Off slip	575	575	144	0	0	657	1664	0.368	575	0	0.6	0.6	3.645	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	998	797	199	200	0	830	1775	0.449	800	184	1.6	0.9	3.989	
B - Dereham Road	1266	1266	316	0	200	1235	1779	0.711	1349	394	23.3	2.6	10.212	
C - A47 SB On slip						968				1616				
D - Connector Link	453	453	113	0	0	90	2437	0.188	454	878	0.3	0.2	1.821	
E - A47 SB Off slip	470	470	117	0	0	543	1633	0.288	470	0	0.6	0.4	3.104	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	835	668	167	168	0	695	1872	0.357	669	150	0.9	0.6	3.227	
B - Dereham Road	1060	1060	265	0	168	1033	1934	0.548	1065	330	2.6	1.2	4.251	
C - A47 SB On slip						787				1312				
D - Connector Link	380	380	95	0	0	71	2451	0.155	380	716	0.2	0.2	1.747	
E - A47 SB Off slip	393	393	98	0	0	451	1688	0.233	394	0	0.4	0.3	2.788	

# 2029DS\_Mitigation, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	4.79	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.79	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1091	100.000
B - Dereham Road		ONE HOUR	✓	1268	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	498	100.000
E - A47 SB Off slip		ONE HOUR	✓	317	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	266	675	150	0
	B - Dereham Road	341	0	637	290	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	241	131	126	0	0
	E - A47 SB Off slip	93	201	0	23	0

### Proportions

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	0.00	0.24	0.62	0.14
	B - Dereham Road	0.27	0.00	0.50	0.23
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.48	0.26	0.25	0.00
	E - A47 SB Off slip	0.29	0.63	0.00	0.07

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	2	0	0	0
	B - Dereham Road	0	0	1	2	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	3	0	0	0
	E - A47 SB Off slip	0	0	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.023	1.004	1.000
	B - Dereham Road	1.001	1.000	1.009	1.024
	C - A47 SB On slip	1.000	1.002	1.000	1.000
	D - Connector Link	1.000	1.031	1.000	1.000
	E - A47 SB Off slip	1.000	1.001	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - William Frost Way	821	828
	B - Dereham Road	955	965
	C - A47 SB On slip	0	0
	D - Connector Link	375	378
	E - A47 SB Off slip	239	239
17:00-17:15	A - William Frost Way	981	988
	B - Dereham Road	1140	1152
	C - A47 SB On slip	0	0
	D - Connector Link	448	451
	E - A47 SB Off slip	285	285
17:15-17:30	A - William Frost Way	1201	1211
	B - Dereham Road	1396	1411
	C - A47 SB On slip	0	0
	D - Connector Link	548	553
	E - A47 SB Off slip	349	349
17:30-17:45	A - William Frost Way	1201	1211
	B - Dereham Road	1396	1411
	C - A47 SB On slip	0	0
	D - Connector Link	548	553
	E - A47 SB Off slip	349	349
17:45-18:00	A - William Frost Way	981	988
	B - Dereham Road	1140	1152
	C - A47 SB On slip	0	0
	D - Connector Link	448	451
	E - A47 SB Off slip	285	285
18:00-18:15	A - William Frost Way	821	828
	B - Dereham Road	955	965
	C - A47 SB On slip	0	0
	D - Connector Link	375	378
	E - A47 SB Off slip	239	239



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.46	3.36	0.8	A	1009	1139
B - Dereham Road	0.74	7.39	2.9	A	1176	1764
C - A47 SB On slip						
D - Connector Link	0.25	2.17	0.3	A	461	691
E - A47 SB Off slip	0.25	3.43	0.3	A	291	437

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	828	623	156	205	0	364	2108	0.296	621	507	0.0	0.4	2.427	
B - Dereham Road	965	965	241	0	205	733	2165	0.446	961	252	0.0	0.8	3.017	
C - A47 SB On slip						609				1088				
D - Connector Link	378	378	94	0	0	256	2315	0.163	377	353	0.0	0.2	1.872	
E - A47 SB Off slip	239	239	60	0	0	633	1578	0.151	238	0	0.0	0.2	2.686	

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	988	744	188	245	0	436	2057	0.362	743	607	0.4	0.6	2.747	
B - Dereham Road	1152	1152	288	0	245	877	2054	0.561	1150	302	0.8	1.3	4.016	
C - A47 SB On slip						728				1299				
D - Connector Link	451	451	113	0	0	306	2278	0.198	451	422	0.2	0.2	1.986	
E - A47 SB Off slip	285	285	71	0	0	758	1504	0.190	285	0	0.2	0.2	2.956	

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1211	911	228	299	0	534	1987	0.459	910	742	0.6	0.8	3.350	
B - Dereham Road	1411	1411	353	0	299	1074	1903	0.741	1405	370	1.3	2.8	7.211	
C - A47 SB On slip						890				1589				
D - Connector Link	553	553	138	0	0	374	2228	0.248	552	516	0.2	0.3	2.166	
E - A47 SB Off slip	349	349	87	0	0	927	1402	0.249	349	0	0.2	0.3	3.423	

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1211	911	228	299	0	534	1987	0.459	911	744	0.8	0.8	3.356	
B - Dereham Road	1411	1411	353	0	299	1075	1902	0.742	1411	370	2.8	2.9	7.392	
C - A47 SB On slip						893				1592				
D - Connector Link	553	553	138	0	0	376	2227	0.248	553	517	0.3	0.3	2.167	
E - A47 SB Off slip	349	349	87	0	0	929	1400	0.249	349	0	0.3	0.3	3.426	

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	988	744	188	245	0	437	2056	0.362	745	609	0.8	0.6	2.755	
B - Dereham Road	1152	1152	288	0	245	879	2053	0.561	1158	303	2.9	1.3	4.094	
C - A47 SB On slip						733				1304				
D - Connector Link	451	451	113	0	0	309	2276	0.198	452	424	0.3	0.2	1.990	
E - A47 SB Off slip	285	285	71	0	0	760	1502	0.190	288	0	0.3	0.2	2.962	

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	828	623	156	205	0	366	2107	0.296	624	509	0.6	0.4	2.436	
B - Dereham Road	965	965	241	0	205	736	2163	0.446	967	253	1.3	0.8	3.048	
C - A47 SB On slip						612				1090				
D - Connector Link	378	378	94	0	0	258	2314	0.163	378	354	0.2	0.2	1.876	
E - A47 SB Off slip	239	239	60	0	0	636	1577	0.151	239	0	0.2	0.2	2.694	

# 2039DM, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	74.40	F

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	74.40	F

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2039DM	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1050	100.000
B - Dereham Road		ONE HOUR	✓	1548	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	543	100.000
E - A47 SB Off slip		ONE HOUR	✓	515	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	217	463	370	0
	B - Dereham Road	74	0	956	517	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	10	217	316	0	0
	E - A47 SB Off slip	85	288	0	142	0

### Proportions

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	0.00	0.21	0.44	0.35
	B - Dereham Road	0.05	0.00	0.62	0.33
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.02	0.40	0.58	0.00
	E - A47 SB Off slip	0.17	0.56	0.00	0.28

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	0	14	0	0
	B - Dereham Road	0	0	0	8	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	1	1	0	0
	E - A47 SB Off slip	0	11	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.000	1.143	1.000
	B - Dereham Road	1.001	1.000	1.001	1.078
	C - A47 SB On slip	1.000	1.002	1.000	1.000
	D - Connector Link	1.000	1.008	1.007	1.000
	E - A47 SB Off slip	1.000	1.110	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - William Frost Way	791	840
	B - Dereham Road	1165	1197
	C - A47 SB On slip	0	0
	D - Connector Link	409	412
	E - A47 SB Off slip	388	411
07:30-07:45	A - William Frost Way	944	1004
	B - Dereham Road	1391	1429
	C - A47 SB On slip	0	0
	D - Connector Link	488	492
	E - A47 SB Off slip	463	491
07:45-08:00	A - William Frost Way	1156	1229
	B - Dereham Road	1704	1750
	C - A47 SB On slip	0	0
	D - Connector Link	598	602
	E - A47 SB Off slip	567	602
08:00-08:15	A - William Frost Way	1156	1229
	B - Dereham Road	1704	1750
	C - A47 SB On slip	0	0
	D - Connector Link	598	602
	E - A47 SB Off slip	567	602
08:15-08:30	A - William Frost Way	944	1004
	B - Dereham Road	1391	1429
	C - A47 SB On slip	0	0
	D - Connector Link	488	492
	E - A47 SB Off slip	463	491
08:30-08:45	A - William Frost Way	791	840
	B - Dereham Road	1165	1197
	C - A47 SB On slip	0	0
	D - Connector Link	409	412
	E - A47 SB Off slip	388	411

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.63	6.55	1.8	A	1024	1238
B - Dereham Road	1.11	171.19	94.7	F	1458	2188
C - A47 SB On slip						
D - Connector Link	0.25	1.96	0.3	A	502	753
E - A47 SB Off slip	0.39	4.02	0.7	A	501	752

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	840	677	169	163	0	750	1832	0.369	674	127	0.0	0.6	3.349	
B - Dereham Road	1197	1197	299	0	163	1020	1945	0.615	1190	404	0.0	1.6	4.858	
C - A47 SB On slip						857				1353				
D - Connector Link	412	412	103	0	0	55	2463	0.167	411	801	0.0	0.2	1.767	
E - A47 SB Off slip	411	411	103	0	0	467	1679	0.245	410	0	0.0	0.3	3.009	

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1004	808	202	195	0	897	1727	0.468	807	151	0.6	0.9	4.217	
B - Dereham Road	1429	1429	357	0	195	1221	1791	0.798	1420	484	1.6	3.9	9.740	
C - A47 SB On slip						1024				1617				
D - Connector Link	492	492	123	0	0	66	2455	0.200	492	958	0.2	0.3	1.846	
E - A47 SB Off slip	491	491	123	0	0	558	1624	0.303	491	0	0.3	0.5	3.370	

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1229	990	248	239	0	1099	1583	0.625	987	177	0.9	1.8	6.478	
B - Dereham Road	1750	1750	437	0	239	1493	1582	1.106	1560	592	3.9	51.3	73.298	
C - A47 SB On slip						1182				1871				
D - Connector Link	602	602	151	0	0	73	2450	0.246	602	1109	0.3	0.3	1.962	
E - A47 SB Off slip	602	602	150	0	0	675	1553	0.387	601	0	0.5	0.7	4.008	

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1229	990	248	239	0	1100	1583	0.626	990	178	1.8	1.8	6.555	
B - Dereham Road	1750	1750	437	0	239	1497	1579	1.108	1576	593	51.3	94.7	171.193	
C - A47 SB On slip						1190				1883				
D - Connector Link	602	602	151	0	0	73	2450	0.246	602	1117	0.3	0.3	1.962	
E - A47 SB Off slip	602	602	150	0	0	676	1553	0.387	602	0	0.7	0.7	4.017	

## 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1004	808	202	195	0	899	1726	0.468	812	168	1.8	1.0	4.264	
B - Dereham Road	1429	1429	357	0	195	1226	1787	0.800	1788	485	94.7	10.0	111.077	
C - A47 SB On slip						1164				1829				
D - Connector Link	492	492	123	0	0	82	2443	0.201	492	1082	0.3	0.3	1.880	
E - A47 SB Off slip	491	491	123	0	0	574	1614	0.304	492	0	0.7	0.5	3.410	

## 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	840	677	169	163	0	753	1831	0.370	678	129	1.0	0.6	3.377	
B - Dereham Road	1197	1197	299	0	163	1025	1941	0.617	1230	406	10.0	1.7	5.442	
C - A47 SB On slip						875				1380				
D - Connector Link	412	412	103	0	0	57	2461	0.167	412	817	0.3	0.2	1.771	
E - A47 SB Off slip	411	411	103	0	0	469	1677	0.245	412	0	0.5	0.3	3.022	

# 2039DM, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	8.79	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.79	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2039DM	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1138	100.000
B - Dereham Road		ONE HOUR	✓	1455	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	514	100.000
E - A47 SB Off slip		ONE HOUR	✓	358	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	264	724	151	0
	B - Dereham Road	341	0	697	417	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	234	137	143	0	0
	E - A47 SB Off slip	83	244	0	31	0

### Proportions

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	0.00	0.23	0.64	0.13
	B - Dereham Road	0.23	0.00	0.48	0.29
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.46	0.27	0.28	0.00
	E - A47 SB Off slip	0.23	0.68	0.00	0.09

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	3	0	0	0
	B - Dereham Road	0	0	1	2	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	3	1	0	0
	E - A47 SB Off slip	0	0	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.025	1.004	1.000
	B - Dereham Road	1.001	1.000	1.010	1.022
	C - A47 SB On slip	1.000	1.002	1.000	1.000
	D - Connector Link	1.000	1.029	1.014	1.000
	E - A47 SB Off slip	1.000	1.001	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - William Frost Way	857	864
	B - Dereham Road	1095	1108
	C - A47 SB On slip	0	0
	D - Connector Link	387	391
	E - A47 SB Off slip	270	270
17:00-17:15	A - William Frost Way	1023	1032
	B - Dereham Road	1308	1322
	C - A47 SB On slip	0	0
	D - Connector Link	462	467
	E - A47 SB Off slip	322	322
17:15-17:30	A - William Frost Way	1253	1264
	B - Dereham Road	1602	1620
	C - A47 SB On slip	0	0
	D - Connector Link	566	573
	E - A47 SB Off slip	395	395
17:30-17:45	A - William Frost Way	1253	1264
	B - Dereham Road	1602	1620
	C - A47 SB On slip	0	0
	D - Connector Link	566	573
	E - A47 SB Off slip	395	395
17:45-18:00	A - William Frost Way	1023	1032
	B - Dereham Road	1308	1322
	C - A47 SB On slip	0	0
	D - Connector Link	462	467
	E - A47 SB Off slip	322	322
18:00-18:15	A - William Frost Way	857	864
	B - Dereham Road	1095	1108
	C - A47 SB On slip	0	0
	D - Connector Link	387	391
	E - A47 SB Off slip	270	270



## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.50	3.76	1.0	A	1053	1208
B - Dereham Road	0.88	16.31	7.0	C	1350	2025
C - A47 SB On slip						
D - Connector Link	0.26	2.20	0.3	A	477	716
E - A47 SB Off slip	0.28	3.62	0.4	A	329	494

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	854	660	165	204	0	421	2067	0.319	659	495	0.0	0.5	2.560	
B - Dereham Road	1108	1108	277	0	204	791	2120	0.522	1103	289	0.0	1.1	3.565	
C - A47 SB On slip						712				1182				
D - Connector Link	391	391	98	0	0	256	2315	0.169	391	456	0.0	0.2	1.892	
E - A47 SB Off slip	270	270	68	0	0	647	1570	0.172	269	0	0.0	0.2	2.768	

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1032	789	197	243	0	504	2008	0.393	788	592	0.5	0.6	2.957	
B - Dereham Road	1322	1322	331	0	243	946	2001	0.661	1319	346	1.1	1.9	5.312	
C - A47 SB On slip						852				1414				
D - Connector Link	467	467	117	0	0	306	2278	0.205	467	546	0.2	0.3	2.011	
E - A47 SB Off slip	322	322	81	0	0	773	1494	0.216	322	0	0.2	0.3	3.074	

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1264	966	241	298	0	617	1927	0.501	965	721	0.6	1.0	3.745	
B - Dereham Road	1620	1620	405	0	298	1159	1838	0.881	1601	423	1.9	6.6	14.351	
C - A47 SB On slip						1036				1724				
D - Connector Link	573	573	143	0	0	372	2230	0.257	572	664	0.3	0.3	2.197	
E - A47 SB Off slip	395	395	99	0	0	944	1391	0.284	394	0	0.3	0.4	3.612	

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1264	966	241	298	0	618	1927	0.501	966	725	1.0	1.0	3.756	
B - Dereham Road	1620	1620	405	0	298	1160	1837	0.882	1618	423	6.6	7.0	16.309	
C - A47 SB On slip						1045				1733				
D - Connector Link	573	573	143	0	0	376	2227	0.257	573	669	0.3	0.3	2.201	
E - A47 SB Off slip	395	395	99	0	0	948	1389	0.284	395	0	0.4	0.4	3.624	

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1032	789	197	243	0	505	2008	0.393	790	597	1.0	0.7	2.988	
B - Dereham Road	1322	1322	331	0	243	949	1999	0.661	1342	346	7.0	2.0	5.708	
C - A47 SB On slip						865				1427				
D - Connector Link	467	467	117	0	0	312	2274	0.206	468	553	0.3	0.3	2.016	
E - A47 SB Off slip	322	322	81	0	0	779	1490	0.216	323	0	0.4	0.3	3.086	

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	864	660	165	204	0	423	2066	0.320	661	497	0.7	0.5	2.572	
B - Dereham Road	1108	1108	277	0	204	794	2118	0.523	1111	290	2.0	1.1	3.630	
C - A47 SB On slip						717				1188				
D - Connector Link	391	391	98	0	0	258	2314	0.169	392	459	0.3	0.2	1.894	
E - A47 SB Off slip	270	270	68	0	0	650	1569	0.172	270	0	0.3	0.2	2.777	

# 2039DS, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	23.52	C

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.52	C

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2039DS	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1049	100.000
B - Dereham Road		ONE HOUR	✓	1371	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	508	100.000
E - A47 SB Off slip		ONE HOUR	✓	584	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	242	438	369	0
	B - Dereham Road	86	0	891	394	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	9	181	318	0	0
	E - A47 SB Off slip	95	307	0	182	0

### Proportions

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	0.00	0.23	0.42	0.35
	B - Dereham Road	0.06	0.00	0.65	0.29
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.02	0.36	0.63	0.00
	E - A47 SB Off slip	0.16	0.53	0.00	0.31

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	0	15	0	0
	B - Dereham Road	0	0	0	7	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	1	1	0	0
	E - A47 SB Off slip	0	1	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.000	1.151	1.000
	B - Dereham Road	1.001	1.000	1.001	1.071
	C - A47 SB On slip	1.000	1.002	1.000	1.000
	D - Connector Link	1.000	1.006	1.006	1.000
	E - A47 SB Off slip	1.000	1.006	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - William Frost Way	790	840
	B - Dereham Road	1033	1055
	C - A47 SB On slip	0	0
	D - Connector Link	383	385
	E - A47 SB Off slip	439	441
07:30-07:45	A - William Frost Way	943	1003
	B - Dereham Road	1233	1259
	C - A47 SB On slip	0	0
	D - Connector Link	457	460
	E - A47 SB Off slip	525	526
07:45-08:00	A - William Frost Way	1155	1228
	B - Dereham Road	1510	1542
	C - A47 SB On slip	0	0
	D - Connector Link	560	563
	E - A47 SB Off slip	643	645
08:00-08:15	A - William Frost Way	1155	1228
	B - Dereham Road	1510	1542
	C - A47 SB On slip	0	0
	D - Connector Link	560	563
	E - A47 SB Off slip	643	645
08:15-08:30	A - William Frost Way	943	1003
	B - Dereham Road	1233	1259
	C - A47 SB On slip	0	0
	D - Connector Link	457	460
	E - A47 SB Off slip	525	526
08:30-08:45	A - William Frost Way	790	840
	B - Dereham Road	1033	1055
	C - A47 SB On slip	0	0
	D - Connector Link	383	385
	E - A47 SB Off slip	439	441

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.61	6.23	1.6	A	1023	1202
B - Dereham Road	0.99	53.36	22.4	F	1285	1928
C - A47 SB On slip						
D - Connector Link	0.23	1.93	0.3	A	469	704
E - A47 SB Off slip	0.41	3.93	0.7	A	537	806

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	840	657	164	182	0	746	1835	0.358	655	142	0.0	0.6	3.293	
B - Dereham Road	1055	1055	264	0	182	1032	1935	0.545	1050	369	0.0	1.2	4.130	
C - A47 SB On slip						794				1288				
D - Connector Link	385	385	96	0	0	65	2456	0.157	384	729	0.0	0.2	1.747	
E - A47 SB Off slip	441	441	110	0	0	449	1689	0.261	439	0	0.0	0.4	2.886	

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1003	785	196	218	0	892	1731	0.454	784	170	0.6	0.9	4.109	
B - Dereham Road	1259	1259	315	0	218	1235	1780	0.708	1254	441	1.2	2.4	6.936	
C - A47 SB On slip						950				1540				
D - Connector Link	460	460	115	0	0	77	2447	0.188	459	872	0.2	0.2	1.820	
E - A47 SB Off slip	526	526	132	0	0	537	1637	0.322	526	0	0.4	0.5	3.249	

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1228	962	240	266	0	1093	1587	0.606	959	205	0.9	1.6	6.163	
B - Dereham Road	1542	1542	386	0	266	1511	1568	0.984	1485	540	2.4	16.6	32.712	
C - A47 SB On slip						1144				1852				
D - Connector Link	563	563	141	0	0	92	2436	0.231	563	1052	0.2	0.3	1.932	
E - A47 SB Off slip	645	645	161	0	0	654	1566	0.412	644	0	0.5	0.7	3.912	

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1228	962	240	266	0	1094	1587	0.606	961	208	1.6	1.6	6.228	
B - Dereham Road	1542	1542	386	0	266	1514	1565	0.985	1519	541	16.6	22.4	53.363	
C - A47 SB On slip						1158				1876				
D - Connector Link	563	563	141	0	0	94	2435	0.231	563	1064	0.3	0.3	1.933	
E - A47 SB Off slip	645	645	161	0	0	657	1564	0.412	645	0	0.7	0.7	3.926	

**08:15 - 08:30**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1003	785	196	218	0	894	1729	0.454	788	176	1.6	0.9	4.149	
B - Dereham Road	1259	1259	315	0	218	1240	1776	0.709	1338	442	22.4	2.6	9.964	
C - A47 SB On slip						983				1596				
D - Connector Link	460	460	115	0	0	83	2443	0.188	460	900	0.3	0.2	1.827	
E - A47 SB Off slip	526	526	132	0	0	543	1633	0.322	527	0	0.7	0.5	3.269	

**08:30 - 08:45**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	840	657	164	182	0	748	1833	0.359	659	143	0.9	0.6	3.317	
B - Dereham Road	1055	1055	264	0	182	1037	1932	0.546	1060	370	2.6	1.2	4.243	
C - A47 SB On slip						800				1297				
D - Connector Link	385	385	96	0	0	65	2455	0.157	385	735	0.2	0.2	1.750	
E - A47 SB Off slip	441	441	110	0	0	451	1689	0.261	441	0	0.5	0.4	2.895	

# 2039DS, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	5.80	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.80	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2039DS	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1138	100.000
B - Dereham Road		ONE HOUR	✓	1331	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	472	100.000
E - A47 SB Off slip		ONE HOUR	✓	399	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
	A - William Frost Way	0	275	700	183	0
	B - Dereham Road	322	0	668	341	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	230	114	128	0	0
	E - A47 SB Off slip	127	233	0	40	0

### Proportions

From		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
	A - William Frost Way	0.00	0.24	0.62	0.14
	B - Dereham Road	0.24	0.00	0.50	0.26
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.49	0.24	0.27	0.00
	E - A47 SB Off slip	0.32	0.58	0.00	0.10

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	2	0	0	0
	B - Dereham Road	0	0	0	2	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	3	0	0	0
	E - A47 SB Off slip	0	0	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.022	1.004	1.000
	B - Dereham Road	1.001	1.000	1.005	1.024
	C - A47 SB On slip	1.000	1.002	1.000	1.000
	D - Connector Link	1.000	1.035	1.000	1.000
	E - A47 SB Off slip	1.000	1.001	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - William Frost Way	858	863
	B - Dereham Road	1002	1011
	C - A47 SB On slip	0	0
	D - Connector Link	358	359
	E - A47 SB Off slip	301	301
17:00-17:15	A - William Frost Way	1023	1030
	B - Dereham Road	1197	1208
	C - A47 SB On slip	0	0
	D - Connector Link	425	428
	E - A47 SB Off slip	359	359
17:15-17:30	A - William Frost Way	1253	1262
	B - Dereham Road	1468	1479
	C - A47 SB On slip	0	0
	D - Connector Link	520	524
	E - A47 SB Off slip	440	440
17:30-17:45	A - William Frost Way	1253	1262
	B - Dereham Road	1468	1479
	C - A47 SB On slip	0	0
	D - Connector Link	520	524
	E - A47 SB Off slip	440	440
17:45-18:00	A - William Frost Way	1023	1030
	B - Dereham Road	1197	1208
	C - A47 SB On slip	0	0
	D - Connector Link	425	428
	E - A47 SB Off slip	359	359
18:00-18:15	A - William Frost Way	858	863
	B - Dereham Road	1002	1011
	C - A47 SB On slip	0	0
	D - Connector Link	358	359
	E - A47 SB Off slip	301	301



## Results

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.49	3.58	0.9	A	1052	1191
B - Dereham Road	0.80	9.65	3.9	A	1233	1849
C - A47 SB On slip						
D - Connector Link	0.23	2.11	0.3	A	437	656
E - A47 SB Off slip	0.31	3.64	0.4	A	367	550

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	863	651	183	212	0	390	2089	0.312	650	510	0.0	0.5	2.504	
B - Dereham Road	1011	1011	253	0	212	776	2132	0.474	1008	284	0.0	0.9	3.221	
C - A47 SB On slip						657				1127				
D - Connector Link	359	359	90	0	0	242	2325	0.154	358	415	0.0	0.2	1.845	
E - A47 SB Off slip	301	301	75	0	0	600	1598	0.188	300	0	0.0	0.2	2.773	

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1030	778	194	253	0	467	2035	0.382	777	610	0.5	0.6	2.869	
B - Dereham Road	1208	1208	302	0	253	928	2015	0.599	1205	316	0.9	1.5	4.475	
C - A47 SB On slip						786				1348				
D - Connector Link	428	428	107	0	0	290	2290	0.187	428	496	0.2	0.2	1.949	
E - A47 SB Off slip	359	359	90	0	0	718	1528	0.235	359	0	0.2	0.3	3.082	

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1262	953	238	309	0	572	1960	0.486	951	745	0.6	0.9	3.575	
B - Dereham Road	1479	1479	370	0	309	1137	1855	0.797	1470	386	1.5	3.8	9.218	
C - A47 SB On slip						959				1648				
D - Connector Link	524	524	131	0	0	353	2243	0.234	524	606	0.2	0.3	2.111	
E - A47 SB Off slip	440	440	110	0	0	877	1431	0.307	439	0	0.3	0.4	3.630	

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1262	953	238	309	0	572	1959	0.486	953	748	0.9	0.9	3.585	
B - Dereham Road	1479	1479	370	0	309	1138	1854	0.798	1479	387	3.8	3.9	9.650	
C - A47 SB On slip						964				1653				
D - Connector Link	524	524	131	0	0	355	2242	0.234	524	608	0.3	0.3	2.113	
E - A47 SB Off slip	440	440	110	0	0	880	1430	0.308	440	0	0.4	0.4	3.638	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1030	778	194	253	0	468	2034	0.382	779	613	0.9	0.6	2.881	
B - Dereham Road	1208	1208	302	0	253	931	2013	0.600	1217	316	3.9	1.5	4.616	
C - A47 SB On slip						792				1358				
D - Connector Link	428	428	107	0	0	292	2288	0.187	429	500	0.3	0.2	1.952	
E - A47 SB Off slip	359	359	90	0	0	721	1528	0.235	360	0	0.4	0.3	3.093	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	863	651	163	212	0	392	2089	0.312	652	512	0.6	0.5	2.516	
B - Dereham Road	1011	1011	253	0	212	779	2130	0.475	1014	285	1.5	0.9	3.262	
C - A47 SB On slip						660				1132				
D - Connector Link	359	359	90	0	0	244	2324	0.154	359	417	0.2	0.2	1.849	
E - A47 SB Off slip	301	301	75	0	0	602	1597	0.188	301	0	0.3	0.2	2.780	

# 2039DS\_Mitigation, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	25.54	D

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	25.54	D

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2039DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1050	100.000
B - Dereham Road		ONE HOUR	✓	1372	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	516	100.000
E - A47 SB Off slip		ONE HOUR	✓	572	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	236	444	369	0
	B - Dereham Road	87	0	895	390	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	9	183	323	0	0
	E - A47 SB Off slip	93	294	0	184	0

### Proportions

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	
From	A - William Frost Way	0.00	0.23	0.42	0.35	
	B - Dereham Road	0.06	0.00	0.65	0.28	
	C - A47 SB On slip	0.20	0.20	0.20	0.20	
	D - Connector Link	0.02	0.36	0.63	0.00	
	E - A47 SB Off slip	0.16	0.51	0.00	0.32	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	0	15	0	0
	B - Dereham Road	0	0	0	7	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	1	1	0	0
	E - A47 SB Off slip	0	1	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.000	1.149	1.000
	B - Dereham Road	1.001	1.000	1.001	1.072
	C - A47 SB On slip	1.000	1.002	1.000	1.000
	D - Connector Link	1.000	1.006	1.005	1.000
	E - A47 SB Off slip	1.000	1.006	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - William Frost Way	790	840
	B - Dereham Road	1033	1055
	C - A47 SB On slip	0	0
	D - Connector Link	388	390
	E - A47 SB Off slip	430	432
07:30-07:45	A - William Frost Way	944	1003
	B - Dereham Road	1233	1260
	C - A47 SB On slip	0	0
	D - Connector Link	463	466
	E - A47 SB Off slip	514	516
07:45-08:00	A - William Frost Way	1156	1229
	B - Dereham Road	1510	1543
	C - A47 SB On slip	0	0
	D - Connector Link	568	571
	E - A47 SB Off slip	629	631
08:00-08:15	A - William Frost Way	1156	1229
	B - Dereham Road	1510	1543
	C - A47 SB On slip	0	0
	D - Connector Link	568	571
	E - A47 SB Off slip	629	631
08:15-08:30	A - William Frost Way	944	1003
	B - Dereham Road	1233	1260
	C - A47 SB On slip	0	0
	D - Connector Link	463	466
	E - A47 SB Off slip	514	516
08:30-08:45	A - William Frost Way	790	840
	B - Dereham Road	1033	1055
	C - A47 SB On slip	0	0
	D - Connector Link	388	390
	E - A47 SB Off slip	430	432

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.61	6.26	1.7	A	1024	1211
B - Dereham Road	0.99	58.50	24.9	F	1286	1928
C - A47 SB On slip						
D - Connector Link	0.23	1.94	0.3	A	476	714
E - A47 SB Off slip	0.40	3.89	0.7	A	526	789

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	840	662	166	178	0	743	1837	0.360	660	142	0.0	0.6	3.298	
B - Dereham Road	1055	1055	264	0	178	1043	1927	0.547	1050	360	0.0	1.2	4.167	
C - A47 SB On slip						794				1299				
D - Connector Link	390	390	98	0	0	65	2456	0.159	390	729	0.0	0.2	1.751	
E - A47 SB Off slip	432	432	108	0	0	455	1686	0.256	430	0	0.0	0.3	2.873	

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1003	791	198	212	0	889	1733	0.456	790	170	0.6	0.9	4.121	
B - Dereham Road	1280	1280	315	0	212	1247	1770	0.712	1255	431	1.2	2.5	7.064	
C - A47 SB On slip						949				1553				
D - Connector Link	466	466	117	0	0	78	2446	0.190	466	871	0.2	0.2	1.826	
E - A47 SB Off slip	516	516	129	0	0	544	1632	0.316	515	0	0.3	0.5	3.229	

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1229	969	242	260	0	1088	1591	0.609	966	204	0.9	1.7	6.199	
B - Dereham Road	1543	1543	386	0	260	1526	1556	0.991	1481	528	2.5	17.9	34.693	
C - A47 SB On slip						1142				1865				
D - Connector Link	571	571	143	0	0	92	2436	0.234	570	1050	0.2	0.3	1.940	
E - A47 SB Off slip	631	631	158	0	0	662	1561	0.404	631	0	0.5	0.7	3.878	

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1229	969	242	260	0	1089	1590	0.609	969	207	1.7	1.7	6.264	
B - Dereham Road	1543	1543	386	0	260	1529	1554	0.993	1515	528	17.9	24.9	58.498	
C - A47 SB On slip						1155				1889				
D - Connector Link	571	571	143	0	0	94	2435	0.234	571	1062	0.3	0.3	1.941	
E - A47 SB Off slip	631	631	158	0	0	665	1560	0.405	631	0	0.7	0.7	3.890	

**08:15 - 08:30**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	1003	791	198	212	0	891	1732	0.457	794	176	1.7	0.9	4.163	
B - Dereham Road	1280	1280	315	0	212	1252	1766	0.713	1349	432	24.9	2.6	10.754	
C - A47 SB On slip						985				1616				
D - Connector Link	466	466	117	0	0	84	2442	0.191	466	902	0.3	0.2	1.834	
E - A47 SB Off slip	516	516	129	0	0	550	1629	0.317	516	0	0.7	0.5	3.248	

**08:30 - 08:45**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - William Frost Way	840	662	166	178	0	746	1836	0.361	664	143	0.9	0.6	3.323	
B - Dereham Road	1055	1055	264	0	178	1047	1924	0.548	1060	362	2.6	1.3	4.286	
C - A47 SB On slip						800				1308				
D - Connector Link	390	390	98	0	0	66	2455	0.159	390	734	0.2	0.2	1.755	
E - A47 SB Off slip	432	432	108	0	0	456	1685	0.256	432	0	0.5	0.3	2.884	

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
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**Filename:** 12b.j10

**Path:** \\corp.pbwan.net\NNN\_Projects\70118686-70061370-Norwich Western Link 2019 20\04 Record of Issue\4A Internal WSP Doc Registers\20240129\_Model Reports(wo 2044)\J12\J12b

**Report generation date:** 29/01/2024 17:19:01

- »2029DM, AM
- »2029DM, PM
- »2029DS, AM
- »2029DS, PM
- »2029DS\_Mitigation, AM
- »2029DS\_Mitigation, PM
- »2039DM, AM
- »2039DM, PM
- »2039DS, AM
- »2039DS, PM
- »2039DS\_Mitigation, AM
- »2039DS\_Mitigation, PM

### Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2029DM</b>										
B - Connector Link	D1	7.6	24.35	0.89	C	D2	0.8	4.78	0.44	A
C - A47 NB Off Slip		5.5	15.06	0.85	C		1.5	4.33	0.61	A
D - Long Lane		0.2	12.81	0.20	B		2.1	26.01	0.69	D
E - Dereham Road		5.0	29.90	0.85	D		0.7	7.98	0.41	A
<b>2029DS</b>										
B - Connector Link	D3	3.6	12.76	0.79	B	D4	0.6	4.27	0.38	A
C - A47 NB Off Slip		2.5	7.59	0.71	A		1.2	3.69	0.55	A
D - Long Lane		0.2	8.35	0.13	A		1.6	17.92	0.62	C
E - Dereham Road		1.7	10.88	0.64	B		0.6	6.81	0.36	A
<b>2029DS_Mitigation</b>										
B - Connector Link	D5	3.5	12.26	0.78	B	D6	0.6	4.28	0.38	A
C - A47 NB Off Slip		2.8	8.04	0.73	A		1.3	3.74	0.56	A
D - Long Lane		0.2	8.64	0.14	A		1.6	18.11	0.62	C
E - Dereham Road		1.8	11.47	0.65	B		0.6	6.84	0.36	A
<b>2039DM</b>										
B - Connector Link	D7	7.9	25.76	0.90	D	D8	1.0	5.22	0.49	A
C - A47 NB Off Slip		7.0	18.95	0.88	C		1.6	4.62	0.62	A
D - Long Lane		0.2	12.82	0.18	B		2.5	30.42	0.72	D
E - Dereham Road		8.4	46.55	0.92	E		0.8	8.33	0.43	A
<b>2039DS</b>										
B - Connector Link	D9	4.1	14.18	0.81	B	D10	0.8	4.80	0.44	A
C - A47 NB Off Slip		3.0	8.68	0.74	A		1.4	4.12	0.59	A
D - Long Lane		0.2	9.02	0.17	A		1.9	22.21	0.66	C
E - Dereham Road		2.2	13.22	0.70	B		0.7	7.63	0.40	A
<b>2039DS_Mitigation</b>										
B - Connector Link	D11	4.0	14.01	0.80	B	D12	0.8	4.78	0.44	A
C - A47 NB Off Slip		3.1	9.05	0.75	A		1.4	4.15	0.59	A
D - Long Lane		0.2	9.27	0.17	A		1.9	22.44	0.66	C
E - Dereham Road		2.3	13.83	0.71	B		0.7	7.63	0.39	A

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

### File summary

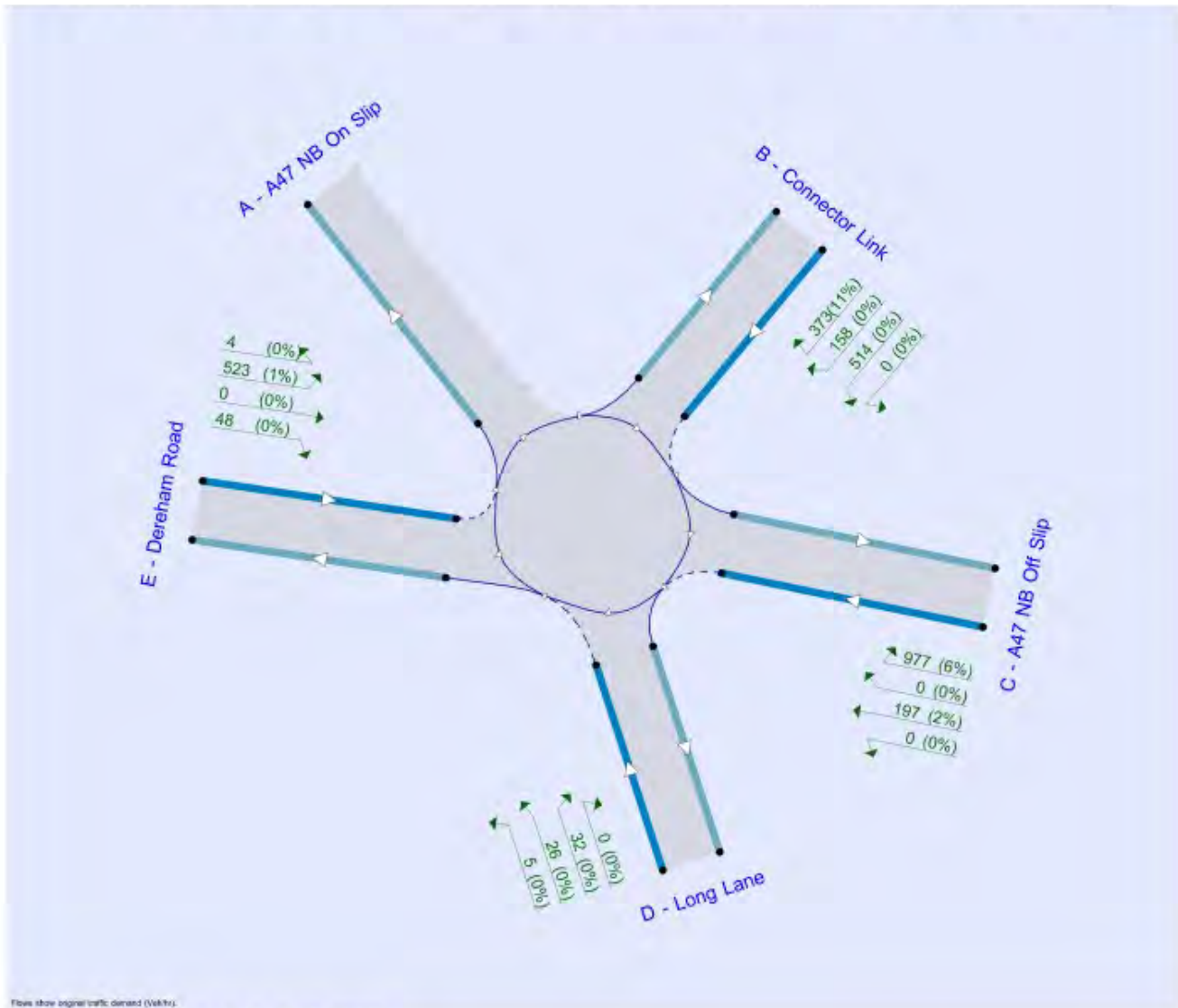
#### File Description

Title	A47 NB Slip Road/ Dereham Road/ Long Lane
Location	52.649756739115205, 1.1844254454835048
Site number	J12b
Date	26/04/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INAL03507
Description	

### Units

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





**Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

**Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029DM	AM	ONE HOUR	07:15	08:45	15	✓
D2	2029DM	PM	ONE HOUR	16:45	18:15	15	✓
D3	2029DS	AM	ONE HOUR	07:15	08:45	15	✓
D4	2029DS	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓
D6	2029DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓
D7	2039DM	AM	ONE HOUR	07:15	08:45	15	✓
D8	2039DM	PM	ONE HOUR	16:45	18:15	15	✓
D9	2039DS	AM	ONE HOUR	07:15	08:45	15	✓
D10	2039DS	PM	ONE HOUR	16:45	18:15	15	✓
D11	2039DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓
D12	2039DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

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

---

# 2029DM, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	21.31	C

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.31	C

## Arms

### Arms

Arm	Name	Description	No give-way line
A	A47 NB On Slip		
B	Connector Link		
C	A47 NB Off Slip		
D	Long Lane		
E	Dereham Road		

### Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
A - A47 NB On Slip								✓
B - Connector Link	4.12	4.12	0.0	27.9	48.0	5.0		
C - A47 NB Off Slip	6.37	8.89	29.1	21.8	48.0	19.5		
D - Long Lane	2.98	7.18	9.9	28.8	55.0	48.0		
E - Dereham Road	2.88	7.74	24.4	18.8	55.0	38.0		

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A47 NB On Slip		
B - Connector Link	0.591	1374
C - A47 NB Off Slip	0.817	2629
D - Long Lane	0.510	1388
E - Dereham Road	0.578	1712

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029DM	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	1045	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1175	100.000
D - Long Lane		ONE HOUR	✓	83	100.000
E - Dereham Road		ONE HOUR	✓	578	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	373	0	0	514	158
	C - A47 NB Off Slip	0	977	0	0	197
	D - Long Lane	28	32	0	0	5
	E - Dereham Road	4	523	0	48	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.38	0.00	0.00	0.49	0.15
	C - A47 NB Off Slip	0.00	0.83	0.00	0.00	0.17
	D - Long Lane	0.41	0.51	0.00	0.00	0.08
	E - Dereham Road	0.01	0.91	0.00	0.08	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	11	0	0	0	0
	C - A47 NB Off Slip	0	8	0	0	2
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	1	0	0	0

### Average PCU Per Veh

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.114	1.000	1.000	1.000	1.000
	C - A47 NB Off Slip	1.000	1.062	1.000	1.000	1.016
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.008	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - A47 NB On Slip	0	0
	B - Connector Link	788	819
	C - A47 NB Off Slip	884	932
	D - Long Lane	47	47
	E - Dereham Road	433	438
07:30-07:45	A - A47 NB On Slip	0	0
	B - Connector Link	939	977
	C - A47 NB Off Slip	1056	1113
	D - Long Lane	57	57
	E - Dereham Road	517	520
07:45-08:00	A - A47 NB On Slip	0	0
	B - Connector Link	1150	1197
	C - A47 NB Off Slip	1293	1364
	D - Long Lane	69	69
	E - Dereham Road	634	637
08:00-08:15	A - A47 NB On Slip	0	0
	B - Connector Link	1150	1197
	C - A47 NB Off Slip	1293	1364
	D - Long Lane	69	69
	E - Dereham Road	634	637
08:15-08:30	A - A47 NB On Slip	0	0
	B - Connector Link	939	977
	C - A47 NB Off Slip	1056	1113
	D - Long Lane	57	57
	E - Dereham Road	517	520
08:30-08:45	A - A47 NB On Slip	0	0
	B - Connector Link	788	819
	C - A47 NB Off Slip	884	932
	D - Long Lane	47	47
	E - Dereham Road	433	438

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.89	24.35	7.6	C	998	1498
C - A47 NB Off Slip	0.85	15.06	5.5	C	1137	1705
D - Long Lane	0.20	12.81	0.2	B	58	87
E - Dereham Road	0.85	29.90	5.0	D	531	797

## Main Results for each time segment

### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1232				333				
B - Connector Link	819	205	36	1353	0.605	812	1196	0.0	1.6	6.857	A
C - A47 NB Off Slip	932	233	848	1937	0.481	929	0	0.0	1.0	3.752	A
D - Long Lane	47	12	1357	674	0.070	47	420	0.0	0.1	5.739	A
E - Dereham Road	436	109	1132	1058	0.412	433	272	0.0	0.7	5.767	A

### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1474				399				
B - Connector Link	977	244	43	1349	0.725	973	1431	1.6	2.6	9.864	A
C - A47 NB Off Slip	1113	278	1016	1800	0.619	1111	0	1.0	1.7	5.486	A
D - Long Lane	57	14	1624	538	0.105	56	503	0.1	0.1	7.473	A
E - Dereham Road	520	130	1355	929	0.560	518	326	0.7	1.3	8.756	A

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1787				484				
B - Connector Link	1197	299	52	1343	0.891	1179	1735	2.6	7.0	20.905	C
C - A47 NB Off Slip	1364	341	1231	1624	0.840	1350	0	1.7	5.1	13.267	B
D - Long Lane	69	17	1972	360	0.192	69	609	0.1	0.2	12.327	B
E - Dereham Road	637	159	1646	761	0.837	625	395	1.3	4.4	24.575	C

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1807				490				
B - Connector Link	1197	299	53	1343	0.891	1195	1755	7.0	7.6	24.354	C
C - A47 NB Off Slip	1364	341	1247	1611	0.847	1362	0	5.1	5.5	15.057	C
D - Long Lane	69	17	1992	350	0.198	69	617	0.2	0.2	12.808	B
E - Dereham Road	637	159	1662	752	0.848	635	400	4.4	5.0	29.904	D

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1506				408				
B - Connector Link	977	244	44	1348	0.725	997	1461	7.6	2.9	11.207	B
C - A47 NB Off Slip	1113	278	1041	1779	0.626	1128	0	5.5	1.8	5.958	A
D - Long Lane	57	14	1654	523	0.108	57	515	0.2	0.1	7.739	A
E - Dereham Road	520	130	1379	915	0.589	535	332	5.0	1.4	9.862	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1243				337				
B - Connector Link	819	205	36	1352	0.605	823	1207	2.9	1.6	7.146	A
C - A47 NB Off Slip	932	233	860	1927	0.484	936	0	1.8	1.0	3.840	A
D - Long Lane	47	12	1370	667	0.071	46	425	0.1	0.1	5.810	A
E - Dereham Road	436	109	1143	1052	0.414	436	275	1.4	0.7	5.924	A



# 2029DM, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	7.54	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.54	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2029DM	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	539	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1164	100.000
D - Long Lane		ONE HOUR	✓	279	100.000
E - Dereham Road		ONE HOUR	✓	280	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	189	0	0	82	268
	C - A47 NB Off Slip	0	1002	0	0	162
	D - Long Lane	28	240	0	0	11
	E - Dereham Road	10	266	0	4	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.35	0.00	0.00	0.15	0.50
	C - A47 NB Off Slip	0.00	0.86	0.00	0.00	0.14
	D - Long Lane	0.10	0.86	0.00	0.00	0.04
	E - Dereham Road	0.04	0.95	0.00	0.01	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	2	0	0	0	2
	C - A47 NB Off Slip	0	1	0	0	1
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	2	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.021	1.000	1.000	1.000	1.022
	C - A47 NB Off Slip	1.000	1.009	1.000	1.000	1.012
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.023	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - A47 NB On Slip	0	0
	B - Connector Link	408	413
	C - A47 NB Off Slip	878	885
	D - Long Lane	210	210
	E - Dereham Road	211	215
17:00-17:15	A - A47 NB On Slip	0	0
	B - Connector Link	485	494
	C - A47 NB Off Slip	1046	1056
	D - Long Lane	251	251
	E - Dereham Road	252	257
17:15-17:30	A - A47 NB On Slip	0	0
	B - Connector Link	593	604
	C - A47 NB Off Slip	1282	1294
	D - Long Lane	307	307
	E - Dereham Road	308	315
17:30-17:45	A - A47 NB On Slip	0	0
	B - Connector Link	593	604
	C - A47 NB Off Slip	1282	1294
	D - Long Lane	307	307
	E - Dereham Road	308	315
17:45-18:00	A - A47 NB On Slip	0	0
	B - Connector Link	485	494
	C - A47 NB Off Slip	1046	1056
	D - Long Lane	251	251
	E - Dereham Road	252	257
18:00-18:15	A - A47 NB On Slip	0	0
	B - Connector Link	408	413
	C - A47 NB Off Slip	878	885
	D - Long Lane	210	210
	E - Dereham Road	211	215

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.44	4.78	0.8	A	504	756
C - A47 NB Off Slip	0.61	4.33	1.5	A	1078	1617
D - Long Lane	0.69	26.01	2.1	D	256	384
E - Dereham Road	0.41	7.98	0.7	A	282	394

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1145				173				
B - Connector Link	413	103	3	1372	0.301	412	1142	0.0	0.4	3.811	A
C - A47 NB Off Slip	885	221	415	2291	0.386	882	0	0.0	0.6	2.575	A
D - Long Lane	210	53	1232	738	0.285	208	64	0.0	0.4	6.782	A
E - Dereham Road	215	54	1104	1074	0.200	214	337	0.0	0.3	4.270	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1370				207				
B - Connector Link	494	123	4	1372	0.360	493	1367	0.4	0.6	4.169	A
C - A47 NB Off Slip	1056	264	497	2224	0.475	1055	0	0.6	0.9	3.106	A
D - Long Lane	251	63	1475	614	0.408	250	77	0.4	0.7	9.817	A
E - Dereham Road	257	64	1321	949	0.271	257	403	0.3	0.4	5.310	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1673				253				
B - Connector Link	604	151	4	1371	0.441	604	1669	0.6	0.8	4.770	A
C - A47 NB Off Slip	1294	323	608	2133	0.607	1291	0	0.9	1.5	4.304	A
D - Long Lane	307	77	1805	446	0.689	302	95	0.7	2.0	24.155	C
E - Dereham Road	315	79	1613	780	0.404	314	493	0.4	0.7	7.866	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1681				254				
B - Connector Link	604	151	4	1371	0.441	604	1676	0.8	0.8	4.781	A
C - A47 NB Off Slip	1294	323	609	2132	0.607	1294	0	1.5	1.5	4.333	A
D - Long Lane	307	77	1808	444	0.692	307	95	2.0	2.1	26.015	D
E - Dereham Road	315	79	1620	776	0.406	315	494	0.7	0.7	7.977	A

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1381				209				
B - Connector Link	494	123	4	1372	0.360	494	1377	0.8	0.6	4.185	A
C - A47 NB Off Slip	1056	264	498	2223	0.475	1059	0	1.5	0.9	3.130	A
D - Long Lane	251	63	1479	812	0.410	257	77	2.1	0.7	10.293	B
E - Dereham Road	257	64	1331	943	0.273	258	405	0.7	0.4	5.381	A

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1152				174				
B - Connector Link	413	103	3	1372	0.301	414	1149	0.6	0.4	3.827	A
C - A47 NB Off Slip	885	221	417	2289	0.386	886	0	0.9	0.6	2.591	A
D - Long Lane	210	53	1238	735	0.286	211	85	0.7	0.4	6.890	A
E - Dereham Road	215	54	1111	1070	0.201	216	339	0.4	0.3	4.307	A

# 2029DS, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	10.13	B

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.13	B

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2029DS	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	933	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1047	100.000
D - Long Lane		ONE HOUR	✓	81	100.000
E - Dereham Road		ONE HOUR	✓	524	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	258	0	0	524	150
	C - A47 NB Off Slip	0	857	0	0	190
	D - Long Lane	27	29	0	0	5
	E - Dereham Road	9	471	0	45	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.28	0.00	0.00	0.56	0.16
	C - A47 NB Off Slip	0.00	0.82	0.00	0.00	0.18
	D - Long Lane	0.44	0.47	0.00	0.00	0.09
	E - Dereham Road	0.02	0.90	0.00	0.09	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	10	0	0	0	0
	C - A47 NB Off Slip	0	7	0	0	2
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	0	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.103	1.000	1.000	1.000	1.000
	C - A47 NB Off Slip	1.000	1.072	1.000	1.000	1.017
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.005	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - A47 NB On Slip	0	0
	B - Connector Link	702	722
	C - A47 NB Off Slip	788	837
	D - Long Lane	46	46
	E - Dereham Road	395	396
07:30-07:45	A - A47 NB On Slip	0	0
	B - Connector Link	838	862
	C - A47 NB Off Slip	941	999
	D - Long Lane	55	55
	E - Dereham Road	471	473
07:45-08:00	A - A47 NB On Slip	0	0
	B - Connector Link	1027	1056
	C - A47 NB Off Slip	1152	1224
	D - Long Lane	67	67
	E - Dereham Road	577	580
08:00-08:15	A - A47 NB On Slip	0	0
	B - Connector Link	1027	1056
	C - A47 NB Off Slip	1152	1224
	D - Long Lane	67	67
	E - Dereham Road	577	580
08:15-08:30	A - A47 NB On Slip	0	0
	B - Connector Link	838	862
	C - A47 NB Off Slip	941	999
	D - Long Lane	55	55
	E - Dereham Road	471	473
08:30-08:45	A - A47 NB On Slip	0	0
	B - Connector Link	702	722
	C - A47 NB Off Slip	788	837
	D - Long Lane	46	46
	E - Dereham Road	395	396

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.79	12.76	3.6	B	880	1320
C - A47 NB Off Slip	0.71	7.59	2.5	A	1020	1530
D - Long Lane	0.13	8.35	0.2	A	56	84
E - Dereham Road	0.64	10.88	1.7	B	483	725

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1099				239				
B - Connector Link	722	181	34	1354	0.533	718	1065	0.0	1.2	5.777	A
C - A47 NB Off Slip	837	209	751	2016	0.415	834	0	0.0	0.7	3.227	A
D - Long Lane	46	11	1159	775	0.059	45	426	0.0	0.1	4.935	A
E - Dereham Road	396	99	944	1167	0.340	394	261	0.0	0.5	4.668	A

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1315				287				
B - Connector Link	862	216	40	1350	0.639	880	1275	1.2	1.8	7.513	A
C - A47 NB Off Slip	999	250	900	1894	0.528	998	0	0.7	1.2	4.257	A
D - Long Lane	55	14	1388	658	0.083	55	510	0.1	0.1	5.961	A
E - Dereham Road	473	118	1129	1059	0.447	472	313	0.5	0.8	6.143	A

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1606				350				
B - Connector Link	1056	264	49	1345	0.785	1049	1557	1.8	3.5	12.227	B
C - A47 NB Off Slip	1224	306	1098	1733	0.706	1219	0	1.2	2.5	7.368	A
D - Long Lane	67	17	1694	502	0.133	67	623	0.1	0.2	8.264	A
E - Dereham Road	580	145	1379	915	0.634	576	382	0.8	1.7	10.561	B

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1613				352				
B - Connector Link	1056	264	49	1345	0.785	1056	1564	3.5	3.6	12.763	B
C - A47 NB Off Slip	1224	306	1105	1727	0.709	1224	0	2.5	2.5	7.593	A
D - Long Lane	67	17	1702	498	0.134	67	626	0.2	0.2	8.351	A
E - Dereham Road	580	145	1386	911	0.636	580	384	1.7	1.7	10.884	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1326				290				
B - Connector Link	852	216	41	1350	0.639	870	1285	3.6	1.9	7.818	A
C - A47 NB Off Slip	999	250	910	1886	0.530	1005	0	2.5	1.2	4.383	A
D - Long Lane	55	14	1399	853	0.084	55	516	0.2	0.1	6.026	A
E - Dereham Road	473	118	1138	1054	0.449	477	315	1.7	0.8	6.301	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1108				242				
B - Connector Link	722	181	34	1354	0.533	725	1072	1.9	1.2	5.913	A
C - A47 NB Off Slip	837	209	759	2010	0.416	839	0	1.2	0.8	3.271	A
D - Long Lane	46	11	1167	771	0.059	46	430	0.1	0.1	4.968	A
E - Dereham Road	396	99	950	1163	0.341	398	283	0.8	0.5	4.731	A

# 2029DS, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	6.17	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.17	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2029DS	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	461	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1099	100.000
D - Long Lane		ONE HOUR	✓	295	100.000
E - Dereham Road		ONE HOUR	✓	266	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	141	0	0	79	241
	C - A47 NB Off Slip	0	945	0	0	154
	D - Long Lane	37	247	0	0	11
	E - Dereham Road	14	248	0	4	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.31	0.00	0.00	0.17	0.52
	C - A47 NB Off Slip	0.00	0.86	0.00	0.00	0.14
	D - Long Lane	0.13	0.84	0.00	0.00	0.04
	E - Dereham Road	0.05	0.93	0.00	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	1	0	0	0	2
	C - A47 NB Off Slip	0	1	0	0	1
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	2	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.007	1.000	1.000	1.000	1.025
	C - A47 NB Off Slip	1.000	1.010	1.000	1.000	1.006
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.016	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - A47 NB On Slip	0	0
	B - Connector Link	347	352
	C - A47 NB Off Slip	827	835
	D - Long Lane	222	222
	E - Dereham Road	200	203
17:00-17:15	A - A47 NB On Slip	0	0
	B - Connector Link	414	421
	C - A47 NB Off Slip	988	997
	D - Long Lane	265	265
	E - Dereham Road	239	243
17:15-17:30	A - A47 NB On Slip	0	0
	B - Connector Link	508	515
	C - A47 NB Off Slip	1210	1221
	D - Long Lane	325	325
	E - Dereham Road	293	297
17:30-17:45	A - A47 NB On Slip	0	0
	B - Connector Link	508	515
	C - A47 NB Off Slip	1210	1221
	D - Long Lane	325	325
	E - Dereham Road	293	297
17:45-18:00	A - A47 NB On Slip	0	0
	B - Connector Link	414	421
	C - A47 NB Off Slip	988	997
	D - Long Lane	265	265
	E - Dereham Road	239	243
18:00-18:15	A - A47 NB On Slip	0	0
	B - Connector Link	347	352
	C - A47 NB Off Slip	827	835
	D - Long Lane	222	222
	E - Dereham Road	200	203

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.38	4.27	0.6	A	429	644
C - A47 NB Off Slip	0.55	3.69	1.2	A	1018	1528
D - Long Lane	0.62	17.92	1.6	C	271	406
E - Dereham Road	0.36	6.81	0.6	A	246	372

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1093				145				
B - Connector Link	352	88	3	1372	0.257	351	1090	0.0	0.3	3.574	A
C - A47 NB Off Slip	835	209	354	2340	0.357	833	0	0.0	0.6	2.406	A
D - Long Lane	222	56	1124	793	0.280	221	62	0.0	0.4	6.277	A
E - Dereham Road	203	51	1035	1114	0.182	202	310	0.0	0.2	4.004	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1308				173				
B - Connector Link	421	105	4	1372	0.307	420	1304	0.3	0.4	3.839	A
C - A47 NB Off Slip	997	249	424	2283	0.437	996	0	0.6	0.8	2.821	A
D - Long Lane	265	66	1345	680	0.390	264	75	0.4	0.6	8.639	A
E - Dereham Road	243	61	1239	996	0.244	242	371	0.2	0.3	4.845	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1599				212				
B - Connector Link	515	129	4	1371	0.376	515	1594	0.4	0.6	4.264	A
C - A47 NB Off Slip	1221	305	519	2206	0.554	1219	0	0.8	1.2	3.677	A
D - Long Lane	325	81	1647	526	0.617	321	91	0.6	1.5	17.281	C
E - Dereham Road	297	74	1514	837	0.355	296	454	0.3	0.6	6.747	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1604				212				
B - Connector Link	515	129	4	1371	0.376	515	1600	0.6	0.6	4.269	A
C - A47 NB Off Slip	1221	305	520	2205	0.554	1221	0	1.2	1.2	3.690	A
D - Long Lane	325	81	1649	525	0.619	325	91	1.5	1.6	17.924	C
E - Dereham Road	297	74	1519	834	0.356	297	455	0.6	0.6	6.805	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1315				174				
B - Connector Link	421	105	4	1372	0.307	421	1312	0.6	0.5	3.847	A
C - A47 NB Off Slip	997	249	425	2282	0.437	999	0	1.2	0.8	2.833	A
D - Long Lane	265	66	1349	678	0.391	269	75	1.6	0.7	8.876	A
E - Dereham Road	243	61	1246	992	0.245	244	372	0.6	0.3	4.887	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1099				146				
B - Connector Link	352	88	3	1372	0.257	353	1096	0.5	0.4	3.585	A
C - A47 NB Off Slip	835	209	356	2339	0.357	836	0	0.8	0.6	2.419	A
D - Long Lane	222	56	1129	790	0.281	223	83	0.7	0.4	6.358	A
E - Dereham Road	203	51	1041	1111	0.183	204	311	0.3	0.2	4.032	A

# 2029DS\_Mitigation, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	10.22	B

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.22	B

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	921	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1082	100.000
D - Long Lane		ONE HOUR	✓	61	100.000
E - Dereham Road		ONE HOUR	✓	523	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	252	0	0	522	147
	C - A47 NB Off Slip	0	892	0	0	190
	D - Long Lane	26	30	0	0	5
	E - Dereham Road	5	472	0	46	0

### Proportions

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.27	0.00	0.00	0.57	0.16
	C - A47 NB Off Slip	0.00	0.82	0.00	0.00	0.18
	D - Long Lane	0.42	0.49	0.00	0.00	0.09
	E - Dereham Road	0.01	0.90	0.00	0.09	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	11	0	0	0	0
	C - A47 NB Off Slip	0	7	0	0	2
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	0	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.106	1.000	1.000	1.000	1.000
	C - A47 NB Off Slip	1.000	1.069	1.000	1.000	1.017
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.005	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - A47 NB On Slip	0	0
	B - Connector Link	693	713
	C - A47 NB Off Slip	815	863
	D - Long Lane	46	46
	E - Dereham Road	394	396
07:30-07:45	A - A47 NB On Slip	0	0
	B - Connector Link	828	852
	C - A47 NB Off Slip	973	1031
	D - Long Lane	55	55
	E - Dereham Road	470	472
07:45-08:00	A - A47 NB On Slip	0	0
	B - Connector Link	1014	1043
	C - A47 NB Off Slip	1191	1263
	D - Long Lane	67	67
	E - Dereham Road	576	579
08:00-08:15	A - A47 NB On Slip	0	0
	B - Connector Link	1014	1043
	C - A47 NB Off Slip	1191	1263
	D - Long Lane	67	67
	E - Dereham Road	576	579
08:15-08:30	A - A47 NB On Slip	0	0
	B - Connector Link	828	852
	C - A47 NB Off Slip	973	1031
	D - Long Lane	55	55
	E - Dereham Road	470	472
08:30-08:45	A - A47 NB On Slip	0	0
	B - Connector Link	693	713
	C - A47 NB Off Slip	815	863
	D - Long Lane	46	46
	E - Dereham Road	394	396

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.78	12.26	3.5	B	870	1304
C - A47 NB Off Slip	0.73	8.04	2.8	A	1052	1579
D - Long Lane	0.14	8.64	0.2	A	56	84
E - Dereham Road	0.65	11.47	1.8	B	482	723

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1127				231				
B - Connector Link	713	178	34	1354	0.527	709	1093	0.0	1.1	5.705	A
C - A47 NB Off Slip	883	216	743	2022	0.427	880	0	0.0	0.8	3.276	A
D - Long Lane	46	11	1178	765	0.060	45	425	0.0	0.1	5.002	A
E - Dereham Road	396	99	965	1154	0.343	394	259	0.0	0.5	4.740	A

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1349				277				
B - Connector Link	852	213	41	1350	0.631	849	1308	1.1	1.7	7.370	A
C - A47 NB Off Slip	1031	258	891	1902	0.542	1029	0	0.8	1.2	4.363	A
D - Long Lane	55	14	1410	647	0.084	55	509	0.1	0.1	6.078	A
E - Dereham Road	472	118	1155	1044	0.452	471	310	0.5	0.8	6.293	A

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1647				338				
B - Connector Link	1043	261	50	1344	0.776	1037	1597	1.7	3.4	11.789	B
C - A47 NB Off Slip	1263	316	1087	1742	0.725	1257	0	1.2	2.7	7.778	A
D - Long Lane	67	17	1722	488	0.137	67	622	0.1	0.2	8.541	A
E - Dereham Road	579	145	1411	897	0.645	575	378	0.8	1.8	11.093	B

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1656				340				
B - Connector Link	1043	261	50	1344	0.776	1043	1605	3.4	3.5	12.258	B
C - A47 NB Off Slip	1263	316	1093	1736	0.727	1263	0	2.7	2.8	8.042	A
D - Long Lane	67	17	1731	484	0.136	67	625	0.2	0.2	8.639	A
E - Dereham Road	579	145	1417	893	0.648	578	380	1.8	1.8	11.473	B

## 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1361				280				
B - Connector Link	852	213	42	1349	0.631	859	1319	3.5	1.8	7.644	A
C - A47 NB Off Slip	1031	258	900	1894	0.544	1037	0	2.8	1.3	4.481	A
D - Long Lane	55	14	1422	841	0.085	55	515	0.2	0.1	6.146	A
E - Dereham Road	472	118	1165	1039	0.455	476	313	1.8	0.8	8.468	A

## 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1135				234				
B - Connector Link	713	178	35	1353	0.527	716	1101	1.8	1.2	5.835	A
C - A47 NB Off Slip	883	216	751	2016	0.428	885	0	1.3	0.8	3.320	A
D - Long Lane	46	11	1187	761	0.080	46	429	0.1	0.1	5.037	A
E - Dereham Road	396	99	972	1150	0.344	397	261	0.8	0.5	4.806	A

# 2029DS\_Mitigation, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	6.19	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.19	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	463	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1109	100.000
D - Long Lane		ONE HOUR	✓	291	100.000
E - Dereham Road		ONE HOUR	✓	268	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	142	0	0	80	241
	C - A47 NB Off Slip	0	952	0	0	157
	D - Long Lane	34	246	0	0	11
	E - Dereham Road	10	252	0	4	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.31	0.00	0.00	0.17	0.52
	C - A47 NB Off Slip	0.00	0.86	0.00	0.00	0.14
	D - Long Lane	0.12	0.85	0.00	0.00	0.04
	E - Dereham Road	0.04	0.95	0.00	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	1	0	0	0	2
	C - A47 NB Off Slip	0	1	0	0	1
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	2	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.007	1.000	1.000	1.000	1.025
	C - A47 NB Off Slip	1.000	1.009	1.000	1.000	1.006
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.016	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - A47 NB On Slip	0	0
	B - Connector Link	349	354
	C - A47 NB Off Slip	835	842
	D - Long Lane	219	219
	E - Dereham Road	200	203
17:00-17:15	A - A47 NB On Slip	0	0
	B - Connector Link	416	423
	C - A47 NB Off Slip	997	1006
	D - Long Lane	262	262
	E - Dereham Road	239	243
17:15-17:30	A - A47 NB On Slip	0	0
	B - Connector Link	510	517
	C - A47 NB Off Slip	1221	1232
	D - Long Lane	320	320
	E - Dereham Road	293	297
17:30-17:45	A - A47 NB On Slip	0	0
	B - Connector Link	510	517
	C - A47 NB Off Slip	1221	1232
	D - Long Lane	320	320
	E - Dereham Road	293	297
17:45-18:00	A - A47 NB On Slip	0	0
	B - Connector Link	416	423
	C - A47 NB Off Slip	997	1006
	D - Long Lane	262	262
	E - Dereham Road	239	243
18:00-18:15	A - A47 NB On Slip	0	0
	B - Connector Link	349	354
	C - A47 NB Off Slip	835	842
	D - Long Lane	219	219
	E - Dereham Road	200	203

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.38	4.28	0.6	A	431	647
C - A47 NB Off Slip	0.56	3.74	1.3	A	1027	1540
D - Long Lane	0.62	18.11	1.6	C	267	401
E - Dereham Road	0.36	6.84	0.6	A	246	372

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1100				140				
B - Connector Link	354	88	3	1372	0.258	352	1097	0.0	0.4	3.579	A
C - A47 NB Off Slip	842	211	355	2339	0.360	840	0	0.0	0.6	2.420	A
D - Long Lane	219	55	1133	788	0.278	218	63	0.0	0.4	6.290	A
E - Dereham Road	203	51	1038	1112	0.183	202	312	0.0	0.2	4.012	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1317				168				
B - Connector Link	423	106	4	1372	0.308	422	1313	0.4	0.4	3.846	A
C - A47 NB Off Slip	1006	251	426	2282	0.441	1005	0	0.6	0.8	2.844	A
D - Long Lane	262	65	1355	675	0.388	261	75	0.4	0.6	8.669	A
E - Dereham Road	243	61	1242	994	0.244	242	374	0.2	0.3	4.858	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1610				205				
B - Connector Link	517	129	4	1371	0.377	517	1605	0.4	0.6	4.274	A
C - A47 NB Off Slip	1232	308	521	2204	0.559	1230	0	0.8	1.3	3.722	A
D - Long Lane	320	80	1659	520	0.616	317	92	0.6	1.5	17.406	C
E - Dereham Road	297	74	1518	835	0.356	296	457	0.3	0.6	6.779	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1615				206				
B - Connector Link	517	129	4	1371	0.377	517	1611	0.6	0.6	4.279	A
C - A47 NB Off Slip	1232	308	522	2203	0.559	1232	0	1.3	1.3	3.739	A
D - Long Lane	320	80	1661	519	0.618	320	92	1.5	1.6	18.112	C
E - Dereham Road	297	74	1524	832	0.357	297	456	0.6	0.6	6.838	A

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1324				169				
B - Connector Link	423	106	4	1372	0.308	423	1321	0.6	0.5	3.854	A
C - A47 NB Off Slip	1006	251	427	2281	0.441	1008	0	1.3	0.8	2.859	A
D - Long Lane	262	65	1359	673	0.389	265	76	1.6	0.6	8.906	A
E - Dereham Road	243	61	1250	990	0.245	244	375	0.6	0.3	4.903	A

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1106				141				
B - Connector Link	354	88	3	1372	0.258	354	1103	0.5	0.4	3.593	A
C - A47 NB Off Slip	842	211	357	2338	0.360	843	0	0.8	0.6	2.431	A
D - Long Lane	219	55	1137	786	0.279	220	63	0.6	0.4	6.371	A
E - Dereham Road	203	51	1044	1109	0.183	204	314	0.3	0.2	4.040	A

# 2039DM, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	27.02	D

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	27.02	D

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2039DM	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	1029	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1202	100.000
D - Long Lane		ONE HOUR	✓	55	100.000
E - Dereham Road		ONE HOUR	✓	628	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	385	0	0	507	157
	C - A47 NB Off Slip	0	990	0	0	213
	D - Long Lane	33	15	0	0	7
	E - Dereham Road	6	528	0	93	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.35	0.00	0.00	0.49	0.15
	C - A47 NB Off Slip	0.00	0.82	0.00	0.00	0.18
	D - Long Lane	0.59	0.27	0.00	0.00	0.14
	E - Dereham Road	0.01	0.84	0.00	0.15	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	11	0	0	0	0
	C - A47 NB Off Slip	0	6	0	0	2
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	1	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.111	1.000	1.000	1.000	1.000
	C - A47 NB Off Slip	1.000	1.061	1.000	1.000	1.018
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.007	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - A47 NB On Slip	0	0
	B - Connector Link	775	805
	C - A47 NB Off Slip	905	954
	D - Long Lane	41	41
	E - Dereham Road	473	476
07:30-07:45	A - A47 NB On Slip	0	0
	B - Connector Link	925	961
	C - A47 NB Off Slip	1081	1139
	D - Long Lane	50	50
	E - Dereham Road	565	568
07:45-08:00	A - A47 NB On Slip	0	0
	B - Connector Link	1133	1177
	C - A47 NB Off Slip	1324	1395
	D - Long Lane	61	61
	E - Dereham Road	692	696
08:00-08:15	A - A47 NB On Slip	0	0
	B - Connector Link	1133	1177
	C - A47 NB Off Slip	1324	1395
	D - Long Lane	61	61
	E - Dereham Road	692	696
08:15-08:30	A - A47 NB On Slip	0	0
	B - Connector Link	925	961
	C - A47 NB Off Slip	1081	1139
	D - Long Lane	50	50
	E - Dereham Road	565	568
08:30-08:45	A - A47 NB On Slip	0	0
	B - Connector Link	775	805
	C - A47 NB Off Slip	905	954
	D - Long Lane	41	41
	E - Dereham Road	473	476

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.90	25.76	7.9	D	981	1472
C - A47 NB Off Slip	0.88	18.95	7.0	C	1163	1744
D - Long Lane	0.18	12.82	0.2	B	51	76
E - Dereham Road	0.92	46.55	8.4	E	580	870

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1266				332				
B - Connector Link	805	201	70	1333	0.604	799	1196	0.0	1.6	6.934	A
C - A47 NB Off Slip	954	238	889	1920	0.497	950	0	0.0	1.0	3.894	A
D - Long Lane	41	10	1370	668	0.062	41	449	0.0	0.1	5.744	A
E - Dereham Road	476	119	1125	1062	0.448	473	285	0.0	0.8	6.117	A

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1515				397				
B - Connector Link	961	240	84	1325	0.726	957	1431	1.6	2.6	10.080	B
C - A47 NB Off Slip	1139	285	1041	1780	0.640	1138	0	1.0	1.8	5.864	A
D - Long Lane	50	12	1639	530	0.093	49	538	0.1	0.1	7.482	A
E - Dereham Road	568	142	1347	934	0.808	565	342	0.8	1.5	9.753	A

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1826				482				
B - Connector Link	1177	294	100	1315	0.895	1159	1726	2.6	7.2	21.796	C
C - A47 NB Off Slip	1395	349	1259	1601	0.871	1377	0	1.8	6.3	15.841	C
D - Long Lane	61	15	1987	353	0.172	60	650	0.1	0.2	12.275	B
E - Dereham Road	696	174	1633	768	0.906	675	414	1.5	6.8	33.215	D

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1853				488				
B - Connector Link	1177	294	102	1314	0.896	1175	1751	7.2	7.9	25.761	D
C - A47 NB Off Slip	1395	349	1277	1587	0.879	1392	0	6.3	7.0	18.953	C
D - Long Lane	61	15	2010	341	0.178	61	659	0.2	0.2	12.819	B
E - Dereham Road	696	174	1651	758	0.918	689	419	6.8	8.4	46.546	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1563				407				
B - Connector Link	961	240	88	1322	0.727	982	1475	7.9	2.9	11.593	B
C - A47 NB Off Slip	1139	285	1070	1756	0.649	1159	0	7.0	2.0	6.559	A
D - Long Lane	50	12	1675	512	0.097	50	554	0.2	0.1	7.799	A
E - Dereham Road	568	142	1376	917	0.620	595	349	8.4	1.7	12.145	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1279				336				
B - Connector Link	805	201	71	1332	0.604	810	1209	2.9	1.6	7.237	A
C - A47 NB Off Slip	954	238	881	1910	0.499	958	0	2.0	1.1	4.000	A
D - Long Lane	41	10	1383	661	0.063	42	455	0.1	0.1	5.817	A
E - Dereham Road	476	119	1137	1055	0.451	479	288	1.7	0.8	6.325	A

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## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	8.28	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.28	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2039DM	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	599	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1159	100.000
D - Long Lane		ONE HOUR	✓	278	100.000
E - Dereham Road		ONE HOUR	✓	297	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	213	0	0	99	287
	C - A47 NB Off Slip	0	981	0	0	179
	D - Long Lane	34	233	0	0	11
	E - Dereham Road	11	281	0	5	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.36	0.00	0.00	0.16	0.48
	C - A47 NB Off Slip	0.00	0.85	0.00	0.00	0.15
	D - Long Lane	0.12	0.84	0.00	0.00	0.04
	E - Dereham Road	0.04	0.95	0.00	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	2	0	0	0	2
	C - A47 NB Off Slip	0	1	0	0	1
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	2	0	0	0

### Average PCU Per Veh

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.016	1.000	1.000	1.000	1.021
	C - A47 NB Off Slip	1.000	1.010	1.000	1.000	1.015
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.021	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - A47 NB On Slip	0	0
	B - Connector Link	451	458
	C - A47 NB Off Slip	873	882
	D - Long Lane	209	209
	E - Dereham Road	224	228
17:00-17:15	A - A47 NB On Slip	0	0
	B - Connector Link	538	547
	C - A47 NB Off Slip	1042	1053
	D - Long Lane	250	250
	E - Dereham Road	267	273
17:15-17:30	A - A47 NB On Slip	0	0
	B - Connector Link	660	670
	C - A47 NB Off Slip	1276	1290
	D - Long Lane	306	306
	E - Dereham Road	327	334
17:30-17:45	A - A47 NB On Slip	0	0
	B - Connector Link	660	670
	C - A47 NB Off Slip	1276	1290
	D - Long Lane	306	306
	E - Dereham Road	327	334
17:45-18:00	A - A47 NB On Slip	0	0
	B - Connector Link	538	547
	C - A47 NB Off Slip	1042	1053
	D - Long Lane	250	250
	E - Dereham Road	267	273
18:00-18:15	A - A47 NB On Slip	0	0
	B - Connector Link	451	458
	C - A47 NB Off Slip	873	882
	D - Long Lane	209	209
	E - Dereham Road	224	228

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.49	5.22	1.0	A	558	837
C - A47 NB Off Slip	0.62	4.62	1.6	A	1075	1613
D - Long Lane	0.72	30.42	2.5	D	255	382
E - Dereham Road	0.43	8.33	0.8	A	278	418

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1138				196				
B - Connector Link	458	114	4	1372	0.334	456	1132	0.0	0.5	3.984	A
C - A47 NB Off Slip	882	221	460	2254	0.391	880	0	0.0	0.6	2.643	A
D - Long Lane	209	52	1262	723	0.289	207	78	0.0	0.4	6.966	A
E - Dereham Road	228	57	1105	1074	0.213	227	364	0.0	0.3	4.334	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1360				234				
B - Connector Link	547	137	5	1371	0.399	546	1355	0.5	0.7	4.428	A
C - A47 NB Off Slip	1053	283	551	2179	0.483	1052	0	0.6	0.9	3.225	A
D - Long Lane	250	62	1510	596	0.419	248	93	0.4	0.7	10.316	B
E - Dereham Road	273	68	1322	948	0.288	272	436	0.3	0.4	5.429	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1660				286				
B - Connector Link	670	167	6	1370	0.489	669	1654	0.7	1.0	5.201	A
C - A47 NB Off Slip	1290	323	674	2079	0.621	1287	0	0.9	1.6	4.582	A
D - Long Lane	306	78	1847	424	0.721	299	114	0.7	2.3	27.562	D
E - Dereham Road	334	83	1613	780	0.428	333	533	0.4	0.8	8.187	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1668				287				
B - Connector Link	670	167	6	1370	0.489	670	1662	1.0	1.0	5.217	A
C - A47 NB Off Slip	1290	323	676	2078	0.621	1290	0	1.6	1.6	4.619	A
D - Long Lane	306	78	1851	422	0.724	305	115	2.3	2.5	30.422	D
E - Dereham Road	334	83	1622	775	0.431	334	535	0.8	0.8	8.325	A

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1372				236				
B - Connector Link	547	137	5	1371	0.399	548	1367	1.0	0.7	4.448	A
C - A47 NB Off Slip	1053	263	553	2178	0.484	1056	0	1.6	1.0	3.250	A
D - Long Lane	250	62	1515	593	0.421	257	94	2.5	0.7	10.896	B
E - Dereham Road	273	68	1334	941	0.290	274	438	0.8	0.4	5.517	A

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1144				197				
B - Connector Link	458	114	4	1372	0.334	459	1140	0.7	0.5	4.007	A
C - A47 NB Off Slip	882	221	463	2252	0.392	883	0	1.0	0.7	2.662	A
D - Long Lane	209	52	1268	720	0.290	210	78	0.7	0.4	7.085	A
E - Dereham Road	228	57	1112	1070	0.214	229	368	0.4	0.3	4.371	A

# 2039DS, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	11.57	B

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.57	B

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2039DS	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	945	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1072	100.000
D - Long Lane		ONE HOUR	✓	72	100.000
E - Dereham Road		ONE HOUR	✓	563	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	257	0	0	532	157
	C - A47 NB Off Slip	0	888	0	0	204
	D - Long Lane	43	24	0	0	5
	E - Dereham Road	11	485	0	67	0

### Proportions

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.27	0.00	0.00	0.56	0.17
	C - A47 NB Off Slip	0.00	0.81	0.00	0.00	0.19
	D - Long Lane	0.60	0.33	0.00	0.00	0.07
	E - Dereham Road	0.02	0.86	0.00	0.12	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	11	0	0	0	0
	C - A47 NB Off Slip	0	7	0	0	2
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	1	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.109	1.000	1.000	1.000	1.000
	C - A47 NB Off Slip	1.000	1.074	1.000	1.000	1.019
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.008	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - A47 NB On Slip	0	0
	B - Connector Link	711	732
	C - A47 NB Off Slip	807	858
	D - Long Lane	54	54
	E - Dereham Road	424	428
07:30-07:45	A - A47 NB On Slip	0	0
	B - Connector Link	849	875
	C - A47 NB Off Slip	964	1025
	D - Long Lane	65	65
	E - Dereham Road	508	508
07:45-08:00	A - A47 NB On Slip	0	0
	B - Connector Link	1040	1071
	C - A47 NB Off Slip	1181	1255
	D - Long Lane	79	79
	E - Dereham Road	620	623
08:00-08:15	A - A47 NB On Slip	0	0
	B - Connector Link	1040	1071
	C - A47 NB Off Slip	1181	1255
	D - Long Lane	79	79
	E - Dereham Road	620	623
08:15-08:30	A - A47 NB On Slip	0	0
	B - Connector Link	849	875
	C - A47 NB Off Slip	964	1025
	D - Long Lane	65	65
	E - Dereham Road	508	508
08:30-08:45	A - A47 NB On Slip	0	0
	B - Connector Link	711	732
	C - A47 NB Off Slip	807	858
	D - Long Lane	54	54
	E - Dereham Road	424	428

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.81	14.18	4.1	B	893	1339
C - A47 NB Off Slip	0.74	8.68	3.0	A	1046	1569
D - Long Lane	0.17	9.02	0.2	A	66	99
E - Dereham Road	0.70	13.22	2.2	B	519	779

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1132				254				
B - Connector Link	732	183	50	1344	0.545	728	1082	0.0	1.2	5.964	A
C - A47 NB Off Slip	858	215	778	1994	0.430	855	0	0.0	0.8	3.350	A
D - Long Lane	54	14	1185	762	0.071	54	448	0.0	0.1	5.085	A
E - Dereham Road	426	106	962	1156	0.368	424	277	0.0	0.6	4.923	A

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1355				304				
B - Connector Link	875	219	80	1339	0.653	872	1295	1.2	1.9	7.895	A
C - A47 NB Off Slip	1025	256	932	1869	0.549	1023	0	0.8	1.3	4.518	A
D - Long Lane	65	16	1419	643	0.101	65	536	0.1	0.1	6.227	A
E - Dereham Road	508	127	1152	1047	0.486	507	332	0.6	0.9	6.689	A

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1653				370				
B - Connector Link	1071	288	73	1331	0.805	1063	1580	1.9	4.0	13.430	B
C - A47 NB Off Slip	1255	314	1136	1702	0.738	1249	0	1.3	2.9	8.335	A
D - Long Lane	79	20	1731	483	0.164	79	654	0.1	0.2	8.897	A
E - Dereham Road	623	156	1405	900	0.692	618	405	0.9	2.2	12.614	B

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1662				373				
B - Connector Link	1071	288	74	1330	0.805	1071	1589	4.0	4.1	14.178	B
C - A47 NB Off Slip	1255	314	1144	1695	0.741	1255	0	2.9	3.0	8.683	A
D - Long Lane	79	20	1741	478	0.166	79	656	0.2	0.2	9.020	A
E - Dereham Road	623	156	1413	896	0.695	622	407	2.2	2.2	13.217	B

**08:15 - 08:30**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1368				307				
B - Connector Link	875	219	61	1338	0.654	883	1308	4.1	2.0	8.290	A
C - A47 NB Off Slip	1025	256	944	1859	0.551	1032	0	3.0	1.3	4.683	A
D - Long Lane	65	16	1432	636	0.102	65	543	0.2	0.1	6.312	A
E - Dereham Road	508	127	1162	1040	0.489	514	335	2.2	1.0	6.932	A

**08:30 - 08:45**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1140				256				
B - Connector Link	732	183	50	1344	0.545	735	1090	2.0	1.3	6.118	A
C - A47 NB Off Slip	858	215	786	1988	0.432	860	0	1.3	0.8	3.401	A
D - Long Lane	54	14	1194	757	0.072	54	452	0.1	0.1	5.123	A
E - Dereham Road	426	106	969	1152	0.370	427	279	1.0	0.6	5.003	A

# 2039DS, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	7.02	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.02	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2039DS	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	544	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1122	100.000
D - Long Lane		ONE HOUR	✓	285	100.000
E - Dereham Road		ONE HOUR	✓	280	100.000

## Origin-Destination Data

### Demand (Veh/hr)

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	204	0	0	98	243
	C - A47 NB Off Slip	0	956	0	0	165
	D - Long Lane	47	227	0	0	11
	E - Dereham Road	29	245	0	5	0

### Proportions

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.37	0.00	0.00	0.18	0.45
	C - A47 NB Off Slip	0.00	0.85	0.00	0.00	0.15
	D - Long Lane	0.16	0.80	0.00	0.00	0.04
	E - Dereham Road	0.10	0.88	0.00	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	2	0	0	0	2
	C - A47 NB Off Slip	0	1	0	0	1
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	2	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.021	1.000	1.000	1.000	1.016
	C - A47 NB Off Slip	1.000	1.010	1.000	1.000	1.006
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.016	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - A47 NB On Slip	0	0
	B - Connector Link	410	416
	C - A47 NB Off Slip	844	852
	D - Long Lane	215	215
	E - Dereham Road	211	214
17:00-17:15	A - A47 NB On Slip	0	0
	B - Connector Link	489	497
	C - A47 NB Off Slip	1008	1018
	D - Long Lane	256	256
	E - Dereham Road	252	255
17:15-17:30	A - A47 NB On Slip	0	0
	B - Connector Link	599	608
	C - A47 NB Off Slip	1235	1247
	D - Long Lane	314	314
	E - Dereham Road	308	313
17:30-17:45	A - A47 NB On Slip	0	0
	B - Connector Link	599	608
	C - A47 NB Off Slip	1235	1247
	D - Long Lane	314	314
	E - Dereham Road	308	313
17:45-18:00	A - A47 NB On Slip	0	0
	B - Connector Link	489	497
	C - A47 NB Off Slip	1008	1018
	D - Long Lane	256	256
	E - Dereham Road	252	255
18:00-18:15	A - A47 NB On Slip	0	0
	B - Connector Link	410	416
	C - A47 NB Off Slip	844	852
	D - Long Lane	215	215
	E - Dereham Road	211	214

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.44	4.80	0.8	A	507	761
C - A47 NB Off Slip	0.59	4.12	1.4	A	1039	1559
D - Long Lane	0.66	22.21	1.9	C	262	392
E - Dereham Road	0.40	7.63	0.7	A	261	391

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1086				213				
B - Connector Link	416	104	4	1372	0.303	414	1082	0.0	0.4	3.812	A
C - A47 NB Off Slip	852	213	418	2288	0.373	850	0	0.0	0.6	2.523	A
D - Long Lane	215	54	1191	759	0.283	213	77	0.0	0.4	6.580	A
E - Dereham Road	214	53	1086	1084	0.197	213	318	0.0	0.2	4.185	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1299				255				
B - Connector Link	497	124	5	1371	0.362	496	1295	0.4	0.6	4.175	A
D - Long Lane	256	64	1426	639	0.401	255	92	0.4	0.7	9.350	A
E - Dereham Road	255	64	1300	961	0.286	255	381	0.2	0.4	5.167	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1587				312				
B - Connector Link	608	152	6	1370	0.444	608	1581	0.6	0.8	4.785	A
C - A47 NB Off Slip	1247	312	613	2128	0.586	1244	0	0.8	1.4	4.100	A
D - Long Lane	314	78	1745	476	0.659	309	113	0.7	1.8	20.983	C
E - Dereham Road	313	78	1588	795	0.394	312	466	0.4	0.6	7.540	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1594				313				
B - Connector Link	608	152	6	1370	0.444	608	1588	0.8	0.8	4.796	A
C - A47 NB Off Slip	1247	312	614	2128	0.586	1247	0	1.4	1.4	4.125	A
D - Long Lane	314	78	1748	475	0.661	314	113	1.8	1.9	22.212	C
E - Dereham Road	313	78	1594	791	0.395	313	467	0.6	0.7	7.634	A

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1308				257				
B - Connector Link	497	124	5	1371	0.362	498	1303	0.8	0.6	4.191	A
C - A47 NB Off Slip	1018	254	503	2219	0.459	1020	0	1.4	0.9	3.038	A
D - Long Lane	256	64	1430	637	0.402	261	93	1.9	0.7	9.696	A
E - Dereham Road	255	64	1309	956	0.267	256	382	0.7	0.4	5.230	A

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1092				215				
B - Connector Link	416	104	4	1372	0.303	417	1088	0.6	0.4	3.831	A
C - A47 NB Off Slip	852	213	421	2286	0.373	854	0	0.9	0.6	2.540	A
D - Long Lane	215	54	1197	756	0.284	216	78	0.7	0.4	6.677	A
E - Dereham Road	214	53	1092	1081	0.198	214	320	0.4	0.3	4.215	A

# 2039DS\_Mitigation, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	11.77	B

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.77	B

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2039DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	944	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1093	100.000
D - Long Lane		ONE HOUR	✓	74	100.000
E - Dereham Road		ONE HOUR	✓	564	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	254	0	0	534	155
	C - A47 NB Off Slip	0	888	0	0	206
	D - Long Lane	44	24	0	0	5
	E - Dereham Road	9	491	0	64	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.27	0.00	0.00	0.57	0.16
	C - A47 NB Off Slip	0.00	0.81	0.00	0.00	0.19
	D - Long Lane	0.60	0.33	0.00	0.00	0.07
	E - Dereham Road	0.02	0.87	0.00	0.11	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	11	0	0	0	0
	C - A47 NB Off Slip	0	7	0	0	2
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	1	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.110	1.000	1.000	1.000	1.000
	C - A47 NB Off Slip	1.000	1.072	1.000	1.000	1.019
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.006	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - A47 NB On Slip	0	0
	B - Connector Link	710	732
	C - A47 NB Off Slip	823	874
	D - Long Lane	55	55
	E - Dereham Road	425	427
07:30-07:45	A - A47 NB On Slip	0	0
	B - Connector Link	848	874
	C - A47 NB Off Slip	982	1043
	D - Long Lane	66	66
	E - Dereham Road	507	509
07:45-08:00	A - A47 NB On Slip	0	0
	B - Connector Link	1039	1070
	C - A47 NB Off Slip	1203	1278
	D - Long Lane	81	81
	E - Dereham Road	621	624
08:00-08:15	A - A47 NB On Slip	0	0
	B - Connector Link	1039	1070
	C - A47 NB Off Slip	1203	1278
	D - Long Lane	81	81
	E - Dereham Road	621	624
08:15-08:30	A - A47 NB On Slip	0	0
	B - Connector Link	848	874
	C - A47 NB Off Slip	982	1043
	D - Long Lane	66	66
	E - Dereham Road	507	509
08:30-08:45	A - A47 NB On Slip	0	0
	B - Connector Link	710	732
	C - A47 NB Off Slip	823	874
	D - Long Lane	55	55
	E - Dereham Road	425	427

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.80	14.01	4.0	B	892	1338
C - A47 NB Off Slip	0.75	9.05	3.1	A	1085	1597
D - Long Lane	0.17	9.27	0.2	A	67	101
E - Dereham Road	0.71	13.83	2.3	B	520	780

### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1149				251				
B - Connector Link	732	183	48	1346	0.544	727	1101	0.0	1.2	5.943	A
C - A47 NB Off Slip	874	218	774	1997	0.437	870	0	0.0	0.8	3.384	A
D - Long Lane	55	14	1197	755	0.073	55	447	0.0	0.1	5.138	A
E - Dereham Road	427	107	975	1149	0.371	424	277	0.0	0.6	4.980	A

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1374				301				
B - Connector Link	874	218	57	1340	0.652	871	1317	1.2	1.9	7.852	A
C - A47 NB Off Slip	1043	281	928	1872	0.557	1041	0	0.8	1.3	4.593	A
D - Long Lane	66	17	1433	635	0.104	66	538	0.1	0.1	6.322	A
E - Dereham Road	509	127	1167	1038	0.491	508	332	0.6	1.0	6.812	A

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1676				367				
B - Connector Link	1070	267	69	1333	0.803	1062	1607	1.9	3.9	13.286	B
C - A47 NB Off Slip	1278	319	1131	1706	0.749	1271	0	1.3	3.1	8.658	A
D - Long Lane	81	20	1749	474	0.171	81	653	0.1	0.2	9.134	A
E - Dereham Road	624	156	1424	889	0.702	619	405	1.0	2.3	13.138	B

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1687				369				
B - Connector Link	1070	267	70	1333	0.803	1069	1617	3.9	4.0	14.008	B
C - A47 NB Off Slip	1278	319	1139	1699	0.752	1277	0	3.1	3.1	9.051	A
D - Long Lane	81	20	1759	469	0.173	81	656	0.2	0.2	9.269	A
E - Dereham Road	624	156	1432	884	0.705	624	407	2.3	2.3	13.829	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1389				304				
B - Connector Link	874	218	58	1340	0.652	882	1331	4.0	2.0	8.234	A
C - A47 NB Off Slip	1043	261	940	1862	0.560	1050	0	3.1	1.4	4.752	A
D - Long Lane	66	17	1447	628	0.105	66	543	0.2	0.1	6.416	A
E - Dereham Road	509	127	1178	1031	0.494	515	335	2.3	1.0	7.077	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1157				253				
B - Connector Link	732	183	48	1346	0.544	735	1109	2.0	1.2	6.097	A
C - A47 NB Off Slip	874	218	783	1990	0.439	876	0	1.4	0.8	3.436	A
D - Long Lane	55	14	1206	751	0.074	56	452	0.1	0.1	5.180	A
E - Dereham Road	427	107	982	1144	0.373	428	280	1.0	0.6	5.062	A

# 2039DS\_Mitigation, PM

## Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12b	A47 NB Slip Road/ Dereham Road/ Long Lane	Standard Roundabout		A, B, C, D, E	7.05	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.05	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2039DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A47 NB On Slip					
B - Connector Link		ONE HOUR	✓	542	100.000
C - A47 NB Off Slip		ONE HOUR	✓	1129	100.000
D - Long Lane		ONE HOUR	✓	284	100.000
E - Dereham Road		ONE HOUR	✓	279	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	200	0	0	99	244
	C - A47 NB Off Slip	0	961	0	0	168
	D - Long Lane	46	227	0	0	11
	E - Dereham Road	28	246	0	5	0

### Proportions

From		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
	A - A47 NB On Slip	0.20	0.20	0.20	0.20	0.20
	B - Connector Link	0.37	0.00	0.00	0.18	0.45
	C - A47 NB Off Slip	0.00	0.85	0.00	0.00	0.15
	D - Long Lane	0.16	0.80	0.00	0.00	0.04
	E - Dereham Road	0.10	0.88	0.00	0.02	0.00

## Vehicle Mix



### Heavy Vehicle Percentages

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	0	0	0	0	0
	B - Connector Link	2	0	0	0	2
	C - A47 NB Off Slip	0	1	0	0	1
	D - Long Lane	0	0	0	0	0
	E - Dereham Road	0	2	0	0	0

### Average PCU Per Veh

		To				
		A - A47 NB On Slip	B - Connector Link	C - A47 NB Off Slip	D - Long Lane	E - Dereham Road
From	A - A47 NB On Slip	1.000	1.000	1.000	1.000	1.000
	B - Connector Link	1.022	1.000	1.000	1.000	1.016
	C - A47 NB Off Slip	1.000	1.010	1.000	1.000	1.006
	D - Long Lane	1.000	1.000	1.000	1.000	1.000
	E - Dereham Road	1.000	1.016	1.000	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - A47 NB On Slip	0	0
	B - Connector Link	408	415
	C - A47 NB Off Slip	850	858
	D - Long Lane	214	214
	E - Dereham Road	210	213
17:00-17:15	A - A47 NB On Slip	0	0
	B - Connector Link	488	495
	C - A47 NB Off Slip	1015	1025
	D - Long Lane	256	256
	E - Dereham Road	251	255
17:15-17:30	A - A47 NB On Slip	0	0
	B - Connector Link	597	606
	C - A47 NB Off Slip	1243	1255
	D - Long Lane	313	313
	E - Dereham Road	308	312
17:30-17:45	A - A47 NB On Slip	0	0
	B - Connector Link	597	606
	C - A47 NB Off Slip	1243	1255
	D - Long Lane	313	313
	E - Dereham Road	308	312
17:45-18:00	A - A47 NB On Slip	0	0
	B - Connector Link	488	495
	C - A47 NB Off Slip	1015	1025
	D - Long Lane	256	256
	E - Dereham Road	251	255
18:00-18:15	A - A47 NB On Slip	0	0
	B - Connector Link	408	415
	C - A47 NB Off Slip	850	858
	D - Long Lane	214	214
	E - Dereham Road	210	213

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A47 NB On Slip						
B - Connector Link	0.44	4.78	0.8	A	505	758
C - A47 NB Off Slip	0.59	4.15	1.4	A	1046	1569
D - Long Lane	0.66	22.44	1.9	C	261	391
E - Dereham Road	0.39	7.63	0.7	A	260	390

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1090				209				
B - Connector Link	415	104	4	1372	0.302	413	1088	0.0	0.4	3.806	A
C - A47 NB Off Slip	858	215	417	2289	0.375	856	0	0.0	0.6	2.531	A
D - Long Lane	214	54	1194	757	0.283	212	78	0.0	0.4	6.594	A
E - Dereham Road	213	53	1088	1084	0.197	212	321	0.0	0.2	4.184	A

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1305				250				
B - Connector Link	495	124	5	1371	0.361	495	1300	0.4	0.6	4.167	A
C - A47 NB Off Slip	1025	256	499	2222	0.461	1024	0	0.6	0.9	3.030	A
D - Long Lane	256	64	1429	637	0.401	255	93	0.4	0.7	9.384	A
E - Dereham Road	255	64	1300	961	0.285	254	384	0.2	0.4	5.165	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1594				305				
B - Connector Link	606	152	6	1370	0.442	605	1588	0.6	0.8	4.771	A
C - A47 NB Off Slip	1255	314	611	2130	0.589	1253	0	0.9	1.4	4.129	A
D - Long Lane	313	78	1749	474	0.660	308	114	0.7	1.8	21.181	C
E - Dereham Road	312	78	1588	794	0.393	311	470	0.4	0.6	7.534	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1600				306				
B - Connector Link	606	152	6	1370	0.442	606	1594	0.8	0.8	4.783	A
C - A47 NB Off Slip	1255	314	612	2129	0.589	1255	0	1.4	1.4	4.154	A
D - Long Lane	313	78	1752	472	0.663	313	115	1.8	1.9	22.444	C
E - Dereham Road	312	78	1595	791	0.395	312	470	0.6	0.7	7.629	A

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1314				251				
B - Connector Link	495	124	5	1371	0.361	496	1309	0.8	0.6	4.182	A
C - A47 NB Off Slip	1025	256	501	2220	0.461	1027	0	1.4	0.9	3.051	A
D - Long Lane	256	64	1434	835	0.403	260	94	1.9	0.7	9.733	A
E - Dereham Road	255	64	1309	955	0.267	256	385	0.7	0.4	5.227	A

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A47 NB On Slip			1097				210				
B - Connector Link	415	104	4	1372	0.302	415	1093	0.6	0.4	3.823	A
C - A47 NB Off Slip	858	215	419	2287	0.375	859	0	0.9	0.6	2.548	A
D - Long Lane	214	54	1200	754	0.284	215	78	0.7	0.4	6.694	A
E - Dereham Road	213	53	1093	1081	0.197	214	322	0.4	0.3	4.215	A



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## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Dereham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J12a	A47 SB Slip/ William Frost Way/ Dereham Road	Standard Roundabout		A, B, C, D, E	5.79	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.79	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2039DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - William Frost Way		ONE HOUR	✓	1137	100.000
B - Dereham Road		ONE HOUR	✓	1333	100.000
C - A47 SB On slip					
D - Connector Link		ONE HOUR	✓	473	100.000
E - A47 SB Off slip		ONE HOUR	✓	387	100.000

## Origin-Destination Data

### Demand (Veh/hr)

From		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
	A - William Frost Way	0	277	699	161	0
	B - Dereham Road	325	0	666	342	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	228	116	129	0	0
	E - A47 SB Off slip	124	223	0	40	0

### Proportions

From		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
	A - William Frost Way	0.00	0.24	0.61	0.14
	B - Dereham Road	0.24	0.00	0.50	0.26
	C - A47 SB On slip	0.20	0.20	0.20	0.20
	D - Connector Link	0.48	0.25	0.27	0.00
	E - A47 SB Off slip	0.32	0.58	0.00	0.10

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link	E - A47 SB Off slip
From	A - William Frost Way	0	2	0	0	0
	B - Dereham Road	0	0	1	2	0
	C - A47 SB On slip	0	0	0	0	0
	D - Connector Link	0	3	0	0	0
	E - A47 SB Off slip	0	0	0	0	0

### Average PCU Per Veh

		To			
		A - William Frost Way	B - Dereham Road	C - A47 SB On slip	D - Connector Link
From	A - William Frost Way	1.000	1.022	1.004	1.000
	B - Dereham Road	1.001	1.000	1.005	1.024
	C - A47 SB On slip	1.000	1.002	1.000	1.000
	D - Connector Link	1.000	1.034	1.000	1.000
	E - A47 SB Off slip	1.000	1.001	1.000	1.000

## Detailed Demand Data

### Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - William Frost Way	858	862
	B - Dereham Road	1004	1013
	C - A47 SB On slip	0	0
	D - Connector Link	358	359
	E - A47 SB Off slip	291	292
17:00-17:15	A - William Frost Way	1022	1030
	B - Dereham Road	1199	1209
	C - A47 SB On slip	0	0
	D - Connector Link	428	429
	E - A47 SB Off slip	348	348
17:15-17:30	A - William Frost Way	1252	1261
	B - Dereham Road	1468	1481
	C - A47 SB On slip	0	0
	D - Connector Link	521	526
	E - A47 SB Off slip	428	428
17:30-17:45	A - William Frost Way	1252	1261
	B - Dereham Road	1468	1481
	C - A47 SB On slip	0	0
	D - Connector Link	521	526
	E - A47 SB Off slip	428	428
17:45-18:00	A - William Frost Way	1022	1030
	B - Dereham Road	1199	1209
	C - A47 SB On slip	0	0
	D - Connector Link	428	429
	E - A47 SB Off slip	348	348
18:00-18:15	A - William Frost Way	858	862
	B - Dereham Road	1004	1013
	C - A47 SB On slip	0	0
	D - Connector Link	358	359
	E - A47 SB Off slip	291	292

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - William Frost Way	0.48	3.55	0.9	A	1051	1187
B - Dereham Road	0.80	9.64	3.9	A	1235	1852
C - A47 SB On slip						
D - Connector Link	0.23	2.12	0.3	A	438	657
E - A47 SB Off slip	0.30	3.80	0.4	A	355	533

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	862	649	162	213	0	384	2094	0.310	647	509	0.0	0.4	2.493	
B - Dereham Road	1013	1013	253	0	213	774	2133	0.475	1009	258	0.0	0.9	3.220	
C - A47 SB On slip						657				1126				
D - Connector Link	359	359	90	0	0	244	2324	0.155	359	413	0.0	0.2	1.847	
E - A47 SB Off slip	292	292	73	0	0	603	1597	0.183	291	0	0.0	0.2	2.757	

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1030	775	194	255	0	460	2040	0.380	774	609	0.4	0.6	2.852	
B - Dereham Road	1209	1209	302	0	255	926	2017	0.600	1207	309	0.9	1.5	4.473	
C - A47 SB On slip						786				1347				
D - Connector Link	429	429	107	0	0	292	2288	0.188	429	494	0.2	0.2	1.952	
E - A47 SB Off slip	348	348	87	0	0	721	1528	0.228	348	0	0.2	0.3	3.058	

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1261	949	237	312	0	563	1966	0.483	948	744	0.6	0.9	3.542	
B - Dereham Road	1481	1481	370	0	312	1133	1858	0.797	1472	378	1.5	3.8	9.210	
C - A47 SB On slip						960				1646				
D - Connector Link	526	526	131	0	0	358	2241	0.235	525	604	0.2	0.3	2.115	
E - A47 SB Off slip	426	426	107	0	0	881	1429	0.298	426	0	0.3	0.4	3.589	

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsatisfied
A - William Frost Way	1261	949	237	312	0	564	1966	0.483	949	746	0.9	0.9	3.552	
B - Dereham Road	1481	1481	370	0	312	1135	1857	0.798	1481	378	3.8	3.9	9.641	
C - A47 SB On slip						964				1651				
D - Connector Link	526	526	131	0	0	358	2240	0.235	526	606	0.3	0.3	2.117	
E - A47 SB Off slip	426	426	107	0	0	884	1427	0.299	426	0	0.4	0.4	3.597	

**17:45 - 18:00**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	1030	775	194	255	0	481	2039	0.380	776	612	0.9	0.6	2.883	
B - Dereham Road	1209	1209	302	0	255	928	2015	0.600	1219	309	3.9	1.5	4.613	
C - A47 SB On slip						793				1354				
D - Connector Link	429	429	107	0	0	295	2286	0.188	429	498	0.3	0.2	1.956	
E - A47 SB Off slip	348	348	87	0	0	724	1524	0.229	349	0	0.4	0.3	3.086	

**18:00 - 18:15**

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
A - William Frost Way	862	649	162	213	0	386	2093	0.310	650	511	0.6	0.5	2.505	
B - Dereham Road	1013	1013	253	0	213	777	2131	0.475	1015	259	1.5	0.9	3.261	
C - A47 SB On slip						661				1131				
D - Connector Link	359	359	90	0	0	246	2323	0.155	360	415	0.2	0.2	1.848	
E - A47 SB Off slip	292	292	73	0	0	605	1595	0.183	292	0	0.3	0.2	2.765	

