

Highways & Transport Technical Note

Introduction

1.1 This Technical Note presents results of queue length traffic surveys undertaken in relation to the fifth schedule 'highway and accessibility works' of the Section 106 Deed of Agreement.

1.2 Paragraph 4.3 of the fifth schedule states:

The owners covenant to carry out traffic surveys at the A339 / A343 St Johns Roundabout prior to commencing the works referred to in Paragraph 4.1 and upon completion of these works. If the traffic has not improved (the parties agree that not improved would be if the traffic queues have not been reduced by 10% on the A339 south arm of the roundabout (specified at an average queue over any 15 minute period during the hours of 0800-0900 and 1700-1800) the owners shall pay to the council the sum of five hundred thousand pounds (£500,000) (or such lesser sum if agreed in writing by the council) and the additional sum for improvements at the St John's Roundabout (A339/A343) including measures to improve air quality.

1.3 Paragraph 7.1 of the fifth schedule states:

The owners covenant to carry out traffic surveys (for the avoidance of doubt this is in addition to the surveys mentioned elsewhere in this deed) of the traffic queue length at the Hambridge Road / Hambridge Lane Roundabout between the construction of the nine hundred and eighty-sixth (986th) residential unit and the one thousand and sixty-ninth (1069th) residential unit and every year thereafter until one year after the final unit on the development is occupied. If the traffic queues are greater than 30 passenger car units on any arm (specified at an average queue over any 15-minute period during the hours of 0800-0900 and 1700-1800), a financial contribution of one hundred thousand pounds (£100,000) and the additional sum will be provided for improvements to the Hambridge Road / Hambridge Lane"

1.4 Queue length traffic surveys of the A339 / St Johns Roundabout and Hambridge Road / Hambridge Lane Roundabout junctions were undertaken on Thursday 3rd November 2022. The surveys were undertaken by Streetwise, an independent specialist survey company. Analysis of the surveyed queue lengths has been undertaken for the peak hour periods of 0800-0900 and 1700-1800. The remainder of this note presents the results of the surveys undertaken.

A339 / A343 St Johns Roundabout

1.5 **Appendix A** presents the queue length survey results. **Table 1** presents the average queue lengths for the southern arm of the roundabout over a 15-minute period during 0800-0900 and 1700-1800.

Survey Period	Southern Arm C - A339			
	Lane 1 MAX	Ave Q Length	Lane 2 MAX	Ave Q Length
08:00 - 08:05	28	32	37	32
08:05 - 08:10	35		32	
08:10 - 08:15	32		28	
08:15 - 08:20	37	36	34	37
08:20 - 08:25	34		43	
08:25 - 08:30	37		33	
08:30 - 08:35	37	35	28	33
08:35 - 08:40	38		36	
08:40 - 08:45	31		36	
08:45 - 08:50	31	33	31	32
08:50 - 08:55	31		30	
08:55 - 09:00	36		35	
17:00 - 17:05	32	31	28	29
17:05 - 17:10	31		27	
17:10 - 17:15	30		32	
17:15 - 17:20	25	26	30	27
17:20 - 17:25	24		24	
17:25 - 17:30	29		27	
17:30 - 17:35	28	28	34	33
17:35 - 17:40	28		36	
17:40 - 17:45	29		28	
17:45 - 17:50	25	27	32	30
17:50 - 17:55	27		30	
17:55 - 18:00	29		29	

Table 1: Queue lengths for southern roundabout arm November 2022

1.6 Flow Consult has been provided with results of a queue length survey undertaken at the roundabout by Count on Us, an independent survey company, on Wednesday 8th June 2008. **Appendix B** presents the survey results and **Table 2** a summary of the average surveyed queue lengths for the southern roundabout arm.

Survey Period	C - A339			
	Lane 1 MAX	Ave Q Length	Lane 2 MAX	Ave Q Length
08:00 - 08:05	90	83	70	73
08:05 - 08:10	50		65	
08:10 - 08:15	110		85	
08:15 - 08:20	200	253	200	257
08:20 - 08:25	270		270	
08:25 - 08:30	290		300	
08:30 - 08:35	300	260	280	250
08:35 - 08:40	260		250	
08:40 - 08:45	220		220	
08:45 - 08:50	300	263	260	227
08:50 - 08:55	290		270	
08:55 - 09:00	200		150	
17:00 - 17:05	35	42	20	28
17:05 - 17:10	50		25	
17:10 - 17:15	40		40	
17:15 - 17:20	30	55	25	42
17:20 - 17:25	50		30	
17:25 - 17:30	85		70	
17:30 - 17:35	40	37	35	37
17:35 - 17:40	40		45	
17:40 - 17:45	30		30	
17:45 - 17:50	120	125	95	102
17:50 - 17:55	145		120	
17:55 - 18:00	110		90	

Table 2: Queue lengths for southern roundabout arm June 2008 survey

1.7 **Table 3** identifies the difference in queue lengths between the June 2008 and November 2012 surveys and the percentage difference (in red).

Survey Period	C - A339			
	Lane 1 MAX	Ave Q Length	Lane 2 MAX	Ave Q Length
08:00 - 08:05	-62	-52	-33	-41
08:05 - 08:10	-15	62	-33	56
08:10 - 08:15	-78		-57	
08:15 - 08:20	-163	-217	-166	-220
08:20 - 08:25	-236	86	-227	86
08:25 - 08:30	-253		-267	
08:30 - 08:35	-263	-225	-252	-217
08:35 - 08:40	-222	86	-214	87
08:40 - 08:45	-189		-184	
08:45 - 08:50	-269	-231	-229	-195
08:50 - 08:55	-259	88	-240	86
08:55 - 09:00	-164		-115	
17:00 - 17:05	-3	-11	8	1
17:05 - 17:10	-19	26	2	-2
17:10 - 17:15	-10		-8	
17:15 - 17:20	-5	-29	5	-15
17:20 - 17:25	-26	53	-6	35
17:25 - 17:30	-56		-43	
17:30 - 17:35	-12	-8	-1	-4
17:35 - 17:40	-12	23	-9	11
17:40 - 17:45	-1		-2	
17:45 - 17:50	-95	-98	-63	-71
17:50 - 17:55	-118	78	-90	70
17:55 - 18:00	-81		-61	

Table 3: Difference between queue lengths surveyed in June 2008 and November 2022 for southern roundabout arm

- 1.8 The difference in average queue length, between the June 2008 and November 2022 queue length surveys, is greater than 10% reduction for all 15-minute periods. There was an increase in average queue length of 2% (1 pcu) on lane two during 1700-1715. However, there was a decrease of 26% (-11 pcus) along lane 2 and therefore a decrease greater than 10% average queue length still occurred.

Hambridge Road / Hambridge Lane Roundabout

- 1.9 **Appendix C** presents the queue length survey results. **Table 4** presents the average queue lengths for all arms of the roundabout over a 15-minute period during 0800-0900 and 1700-1800.

Survey Period	A - (North East) B3421 Hambridge Road		B - Hambridge Lane		C - Unnamed Road		D - (West) B3421 Hambridge Road				
	Lane 1	Ave Q	Lane 1	Ave Q	Lane 1	Ave Q	Lane 1	Ave Q	Lane 2	Ave Q	
	MAX		MAX		MAX		MAX		MAX		
08:00	08:05	10	10	2	3	6	8	0	1	0	0
08:05	08:10	8		5		7		2		0	
08:10	08:15	11		2		11		0		1	
08:15	08:20	7	12	3	3	4	5	0	1	0	0
08:20	08:25	19		3		7		0		0	
08:25	08:30	11		3		3		2		0	
08:30	08:35	7	14	1	3	3	3	1	1	0	0
08:35	08:40	9		3		2		0		0	
08:40	08:45	25		5		3		1		0	
08:45	08:50	20	16	5	4	3	2	0	0	0	0
08:50	08:55	9		2		3		0		0	
08:55	09:00	20		5		1		0		0	
17:00	17:05	23	23	12	11	20	22	11	10	1	1
17:05	17:10	21		7		19		13		1	
17:10	17:15	24		15		28		6		1	
17:15	17:20	22	23	16	17	22	23	8	11	1	0
17:20	17:25	23		15		22		13		0	
17:25	17:30	25		19		24		11		0	
17:30	17:35	25	23	12	13	9	7	10	9	0	0
17:35	17:40	20		16		4		10		0	
17:40	17:45	25		12		8		6		0	
17:45	17:50	22	18	19	19	9	7	7	3	0	0
17:50	17:55	25		16		6		0		0	
17:55	18:00	7		21		6		1		0	

Table 4: Average queue lengths over 15 minutes

1.10 As shown by Table 2, the average queue lengths over a 15-minute period did not exceed 30 pcus.

JL - 22/11/2022 - FCL0148 V01

**Appendix A: Queue Length Survey Results A339 / St Johns Roundabout - November
2012**



Newbury: Queue Length Survey - Thursday, 03 November 202

Produced by Streetwise Services Ltd.

Junction: A - A339 Greenham Road / B - Greenham Road / C - A339 / D - A339

Survey Period	A - A339 Greenham Road		B - Greenham Road	
	Lane 1	Lane 2	Lane 1	Lane 2
	MAX	MAX	MAX	MAX
08:00 - 08:05	5	3	17	7
08:05 - 08:10	8	25	19	6
08:10 - 08:15	2	2	20	7
08:15 - 08:20	6	6	19	4
08:20 - 08:25	3	2	23	6
08:25 - 08:30	1	10	19	7
08:30 - 08:35	1	4	16	7
08:35 - 08:40	6	7	15	7
08:40 - 08:45	8	10	15	7
08:45 - 08:50	5	10	13	6
08:50 - 08:55	1	12	12	5
08:55 - 09:00	4	3	1	1
17:00 - 17:05	3	5	20	7
17:05 - 17:10	25	26	14	7
17:10 - 17:15	4	7	20	6
17:15 - 17:20	29	24	13	7
17:20 - 17:25	26	25	15	6
17:25 - 17:30	8	6	15	6
17:30 - 17:35	9	24	19	6
17:35 - 17:40	14	10	14	6
17:40 - 17:45	10	7	15	7
17:45 - 17:50	13	5	19	6

17:50 - 17:55	9	7	20	7
17:55 - 18:00	11	23	12	6

343 St Johns Road

C - A339		D - A343 St Johns Road		
Lane 1	Lane 2	Lane 1	Lane 2	Lane 3
MAX	MAX	MAX	MAX	MAX
28	37	13	9	3
35	32	19	9	2
32	28	17	5	2
37	34	16	7	3
34	43	13	7	0
37	33	17	5	0
37	28	14	7	3
38	36	14	7	2
31	36	17	9	3
31	31	16	7	3
31	30	15	7	1
36	35	20	9	3
32	28	13	7	3
31	27	10	7	3
30	32	11	7	3
25	30	11	7	3
24	24	13	9	3
29	27	11	4	2
28	34	11	6	2
28	36	13	9	1
29	28	20	9	1
25	32	4	6	3

27	30	13	2	3
29	29	17	9	1

Appendix B: Queue Length Survey Results A339 / St Johns Roundabout – June 2008



SITE: 7

DAY:

LOCATION: A339 / St John Road / Greenham Road

DATE:

Time Beginning	A339 (Southbound)		St John Road (Eastbound)	
	NEAR SIDE	OFFSIDE	NEAR SIDE	MIDDLE
08:00	25	40	30	30
08:05	20	45	60	40
08:10	25	20	70	90
08:15	70	70	90	90
08:20	40	45	130	90
08:25	40	65	140	90
08:30	25	30	150	90
08:35	35	50	170	90
08:40	30	40	160	90
08:45	50	50	170	90
08:50	55	30	140	90
08:55	80	25	100	90

17:00	60	30	20	15
17:05	100	90	15	15
17:10	75	60	15	15
17:15	70	60	20	15
17:20	45	45	25	10
17:25	100	60	30	20
17:30	130	90	20	15
17:35	70	120	15	20
17:40	120	65	20	15
17:45	125	70	20	25
17:50	90	100	15	15
17:55	150	150	10	10



Wednesday

SITE: 7

DAY:

25/06/2008

LOCATION: A339 / St John Road / Greenham Road

DATE:

d)

OFFSIDE
5
10
10
5
10
5
5
10
5
10
5
15

Time Beginning	A339 (Northbound)		Greenham Roa
	NEAR SIDE	OFFSIDE	NEAR SIDE
08:00	90	70	20
08:05	50	65	40
08:10	110	85	60
08:15	200	200	80
08:20	270	270	50
08:25	290	300	40
08:30	300	280	30
08:35	260	250	60
08:40	220	220	45
08:45	300	260	20
08:50	290	270	15
08:55	200	150	15

0
5
5
5
0
5
0
5
10
5
0
5

17:00	35	20	45
17:05	50	25	50
17:10	40	40	55
17:15	30	25	30
17:20	50	30	45
17:25	85	70	25
17:30	40	35	20
17:35	40	45	35
17:40	30	30	80
17:45	120	95	90
17:50	145	120	85
17:55	110	90	55

**37021 / NEWBURY
JUNE 08
E LENGTH OBSERVATIONS**

Wednesday

25/06/2008

d (Westbound)
OFFSIDE
30
30
30
30
30
30
30
30
30
25
20
30

30
30
30
20
30
30
30
20
30
30
30
30

**Appendix C: Queue Length Survey Results Hambridge Road / Hambridge Lane
Roundabout**



Newbury: Queue Length Survey - Thursday, 03 November 202

Produced by Streetwise Services Ltd.

Junction: A - (North East) B3421 Hambridge Road / B - Hambridge Lane / C

Survey Period	A - (North East) B3421 Hambr	B - Hambridge Lane	C - Unnamed Road	D - (West) B3421
	Lane 1	Lane 1	Lane 1	Lane 1
	MAX	MAX	MAX	MAX
08:00 - 08:05	10	2	6	0
08:05 - 08:10	8	5	7	2
08:10 - 08:15	11	2	11	0
08:15 - 08:20	7	3	4	0
08:20 - 08:25	19	3	7	0
08:25 - 08:30	11	3	3	2
08:30 - 08:35	7	1	3	1
08:35 - 08:40	9	3	2	0
08:40 - 08:45	25	5	3	1
08:45 - 08:50	20	5	3	0
08:50 - 08:55	9	2	3	0
08:55 - 09:00	20	5	1	0
17:00 - 17:05	23	12	20	11
17:05 - 17:10	21	7	19	13
17:10 - 17:15	24	15	28	6
17:15 - 17:20	22	16	22	8
17:20 - 17:25	23	15	22	13
17:25 - 17:30	25	19	24	11
17:30 - 17:35	25	12	9	10
17:35 - 17:40	20	16	4	10
17:40 - 17:45	25	12	8	6
17:45 - 17:50	22	19	9	7

17:50 - 17:55	25	16	6	0
17:55 - 18:00	7	21	6	1

0
0