

---

# London Road Industrial Estate Access Scheme

One Year Evaluation Report (June 2018)

---



---

# One Year Evaluation of London Road Industrial Estate Access Scheme

---

## 1. Background and purpose of this report

- 1.1 West Berkshire Council (WBC) completed the new access to the London Road Industrial Estate in March 2017. The scheme was part funded by the Thames Valley Berkshire Local Enterprise Partnership (TVB LEP) through the Local Growth Fund. There is a requirement to provide the TVB LEP with a 'One Year Evaluation Report' in relation to this scheme.
- 1.2 Although the scheme involved works on the highway and the creation of a new road access and pedestrian and cycle links, the driver for the scheme was economic development rather than the need to solve a particular transport issue. There are some transport user benefits and benefits to the network as a result but the unlocking of the potential regeneration of the area remains the main focus of the scheme.
- 1.3 West Berkshire Council, which owns much of the industrial estate site, has entered into a development agreement with St Modwen to introduce a series of residential, retail and commercial developments. At the time of writing, this has not yet resulted in any firm planning applications, as a legal challenge has been made to the development agreement. However, a significant outline planning application has been made by a third party to replace an industrial site with 82 dwellings and office accommodation. At this stage, and until any proposed development comes to fruition, the number of vehicle movements associated with the LRIE is very similar to those prior to the opening of the new access.
- 1.4 Appendix 1 shows the key junctions and landmarks referred to in the report. Appendix 2 shows the route to the LRIE from the south, both before and after construction of the new access. Appendix 3 contains a selection of traffic survey data. Further details of the scheme itself can be found on the WBC website [www.westberks.gov.uk/sep](http://www.westberks.gov.uk/sep).

## 2. Format of this report

- 2.1 This report will cover the areas set out in the Berkshire Local Transport Plan guidance which are:
  - a. did it get built?
  - b. was it to plan?
  - c. was it on time?
  - d. was it to budget?
  - e. is it working ok?
  - f. what impact has it had?
  - g. any learning points?

### 3. Did it get built?

- 3.1 The new junction and carriageway widening have been constructed and are open for public use.

### 4. Was it to plan?

- 4.1 The new junction and carriageway widening were constructed as planned. Methods of construction were not always as originally planned as unforeseen ground conditions required additional work, but the final road layout is in accordance with the original designs.
- 4.2 Some additional work, not directly related to the new junction and road widening, was included in the construction contract both to avoid future disruption to road users and to achieve better value from the contract. This involved resurfacing parts of the A339 and refurbishing the parapets on the canal bridge to the south of the widening.

### 5. Was it on time?

- 5.1 The original Business Case envisaged a construction period of September 2015 to May 2016 (nine months). However, this start date proved unachievable due to protracted land negotiations and the duration of construction was extended as a result of the inclusion of other works within the construction contract, see above.
- 5.2 Once the land was secured, initial publicity advertised a 12 month construction period, which started on 8<sup>th</sup> February 2016. The project was completed on 27<sup>th</sup> March 2017 (13.5 months), equating to a delay of 47 days. Contractually, the work was completed within the contractor's programme, which was extended as a result of several factors that were at the Council's risk. The principal unforeseen events during construction were:
- (1) Tree roots entwined around a high voltage cable in the works area – delay due to the lead time for the electricity company arranging for the cable to be isolated while the tree was removed.
  - (2) Multiple telecommunications cables found in the new junction mouth several metres to the east of the location shown on the owner's records – these had to be protected with a layer of concrete before the new road could be constructed over them.

### 6. Was it to budget?

- 6.1 The overall cost of the project was £4,041,824, excluding land costs. Whilst this is a significantly greater sum than estimated in the Business Case (£2,239,000 excluding land costs), the two figures are not directly comparable due to the additional work that was included in the construction contract. The project was funded by the contribution of £1,939,000 received from Thames Valley Berkshire LEP, with the remainder from Section 106 contributions and DfT Challenge funding.
- 6.2 Whilst it is not possible to accurately define the exact proportion of expenditure associated with the LRIE access and the additional work, the value of the additional work is consistent with the difference between the figure in the business case and the overall contract cost. Although savings were made during the contract by

making some design and programming changes, the costs associated with managing the unforeseen utility issues meant that the contingency sum of £300,000 was all used.

### 7. Is it working ok?

- 7.1 As stated above, the purpose of this project was to unlock the London Road Industrial Estate (LRIE) site for regeneration rather than to solve an existing transport problem. In transport terms it simply aimed to facilitate improved access to the site without causing disruption to traffic flow on the existing network. Some ancillary benefits to the network were also envisaged, principally a reduction of traffic volumes and congestion on the Robin Hood gyratory and the opening up of an east-west pedestrian route between the LRIE and the town centre via a pedestrian crossing incorporated into the new junction. The success against these aims is discussed below in qualitative and quantitative terms.
- 7.2 The “before and after” data referred to in the following paragraphs is taken from comprehensive traffic surveys undertaken in May 2013 and April 2017 for the Council’s town centre VISSIM model. The new junction had only been open for a short time when the the April 2017 data was collected, so it is possible that traffic patterns had not fully “settled down”, but this was the most appropriate time during 2017 to undertake surveys.
- 7.3 Although the data from the surveys is directly comparable, the new junction was not the only change to the highway network and traffic patterns were also affected by other factors. These include:
- (1) The introduction of SCOOT at traffic signals at Robin Hood gyratory and the A4/Faraday Road junctions, which prioritised progression for north-south movements on the A339;
  - (2) The relocation of a large town centre employer away from Newbury, resulting in the reduction of approximately 130 vehicle movements from the network in each peak period.
  - (3) Numerous residential developments being constructed, especially at Newbury Racecourse.
- 7.4 It is therefore not possible to say that the changes between the before and after data were solely due to the opening of the new LRIE access.
- 7.5 Volume surveys, turning counts and journey time surveys in 2013 and 2017 are summarised in the tables in Appendix 3. The following conclusions are drawn from this data:
- (1) Traffic volumes
    - (a) 24 hour automatic traffic counts show a reduction in traffic volumes on the A339 between 2013 and 2017. The reduction in peak hour traffic is particularly pronounced with a 26.7% reduction in traffic in the 08:00 to 09:00 period and an 18.9% reduction between 17:00 and 18:00.
    - (b) A more detailed examination of hourly flows suggests that the peak periods are starting earlier, with the 07:00 to 08:00 and 16:00 to 17:00

flows increasing between 2013 and 2017. However, even though the peak periods seem to be “smoothed” over a three hour period in 2017, the total flows from 07:00 to 10:00 and 16:00 to 19:00 have still recorded lower total volumes than in 2013.

(2) Turning counts

- (a) A turning count undertaken in April 2017 showed that 169 vehicles entered and 184 vehicles left the LRIE at the new access to the A339 between 08:00 and 09:00, 149 of which approached from the south and thereby avoided the Robin Hood gyratory. Although no surveys have been undertaken, it is reasonable to assume that a high proportion of vehicles leaving the LRIE in the morning peak period are actually passing through the site. Similarly 137 vehicles entered the estate from the south between 17:00 and 18:00 and it cannot be expected that all these vehicles were gaining access to premises, but were seeking to avoid the Robin Hood gyratory and join the A4. This “rat-running” behaviour is discussed in Section 9
- (b) According to comparisons between turning counts at the A4/Faraday Road junction (the pre-existing access to the LRIE), in 2017 43 fewer vehicles entered the LRIE from the A4 (west) in the morning peak and 130 fewer vehicles exited via this route in the afternoon peak. This is consistent with expectations and reflects the availability of the new alternative access for traffic travelling from and to the south of Newbury. There has been an increase in traffic travelling in both directions in both peaks between the A4 (east) and Faraday Road and given that the LRIE has not experienced a significant change of use between 2013 and 2017 it is most likely indicative of through traffic “rat running” between the A339 and A4.
- (c) It was hoped to be able to provide a quantitative comparison of turning movements at the Robin Hood gyratory, but unfortunately the 2017 data is not of sufficient quality to be able to do so. From observation, however, it is clear that traffic at the gyratory is flowing well and there have been no particular issues with exit blocking of the southern part of the gyratory by southbound queues at the LRIE access.

(3) Journey times:

- (a) Journey times were shorter on the A339 in 2017 than in 2013, with the exception of the southbound journey in the morning peak, which slowed by an average of 57 seconds. This is to be expected given that southbound traffic has an additional junction to negotiate and that southbound traffic is halted to allow northbound traffic to turn into the LRIE.
- (b) Eastbound journey times on the A4 were longer in 2017 than 2013 in both peaks. This is not considered to be due to the new LRIE access but more likely to be due to the introduction of SCOOT at Robin Hood gyratory, which does not allow progression for vehicles travelling in this direction, as progression for vehicles on the A339 is prioritised. Westbound journey times on the A4, however, were shorter in 2017 in

both peaks, potentially due to the introduction of SCOOT, which has co-ordinated the timings of the signals at Robin Hood and A4/Faraday Road.

- 7.6 The new access was added to the SCOOT region which comprises the Robin Hood gyratory and the A4/Faraday Road junction. Although SCOOT operates at the roundabout throughout the day, the new LRIE access junction tends to only utilise SCOOT at peak hours. In normal circumstances, this works well but a new traffic detector on the southbound A339 at the new access is able to detect queueing traffic outside the peak periods and activate SCOOT automatically. It also triggers a change to the timings at the downstream “Sainsbury’s” roundabout which clears the southbound queue more quickly. This has enabled greater control over traffic congestion on the wider network.

### 8. What impact has it had?

- 8.1 The new junction has reduced the distance that must be travelled to reach the Industrial Estate from the south by approximately 1.1km, as shown in Appendix 2. The benefits of this are two fold, in the journey time saving to those travelling to the LRIE and the reduction in traffic levels at the Robin Hood gyratory.
- 8.2 The new access included a pedestrian/cycle crossing over the A339, which has opened up a new east-west route. Previously, pedestrians and cyclists would have had to cross the A339 at the canal bridge or underpasses at the “Sainsbury’s” roundabout or Robin Hood gyratory. The new crossing links to routes within Victoria Park which offer a pleasant walking or cycling route to the town centre. In a one day survey undertaken in June 2018, a total of 370 people crossed the A339 at the new crossing point between 7am and 7pm, an average of over 30 users per hour. 65 out of the 370 users were cyclists.
- 8.3 Including planned resurfacing and bridge maintenance in the contract to build the new access avoided another period of roadworks and disruption to the road network in Newbury. It also generated cost savings in terms of temporary traffic management and set up costs.
- 8.4 The project has been nominated for an Institution of Civil Engineers award in the Community Benefit category. Local students were given work experience on the site and the contractors constructed a short footpath between a car park and the canal towpath at their own expense.

### 9. Any learning points?

- 9.1 The project was procured through the Scape Civil Engineering and Infrastructure framework. As a single supplier framework, this procurement route enabled early engagement with the contractor, Balfour Beatty, and also meant that the start on site was possible several months sooner than if a separate competitive procurement process had been undertaken.
- 9.2 Monitoring of traffic patterns since the junction opened has shown unbalanced queue lengths in the three lane northbound section of the A339 to the north of the new junction. A minor change to the road markings has been identified to re-balance the traffic queues at the Robin Hood gyratory and in turn maximise the

capacity of the short link between the two junctions. This will be particularly effective in the morning peak.

- 9.3 Whilst the new pedestrian crossing across the A339 has created a valuable east-west link from the London Road industrial estate to Victoria Park and the town centre, waiting times for pedestrians can be excessive at peak times. This is due to the traffic signals in the SCOOT region running a cycle time of up to 128 seconds. This could be addressed by altering the staging of the Fleming Road junction but would require a significant amount of work. Overall, this is considered to be a minor issue and unlikely to deter use of the new crossing, but it is hoped that improvements can be made as part of the planned upgrade of the Robin Hood gyratory, in the next few years.
- 9.4 The opening of the new LRIE access has also opened up a “rat-run” between the A339 and A4 for drivers seeking to avoid the Robin Hood gyratory. It is therefore not a surprise that not all the traffic using the new LRIE access is travelling to or from the LRIE itself. Whilst there is sufficient capacity within the LRIE site to accommodate some of this traffic on Fleming Road and Faraday Road, it is not the intention that through traffic uses this route. Although this re-routing was considered likely at the design stage, no plans were made to discourage it in the short term, as any physical changes to the road layout may prove to be abortive as and when the site is developed. When the development of the LRIE is planned and designed in detail, the opportunity should be taken to review the internal road layout of the site in order to make it less attractive to this through traffic. As the site is developed it is considered that more traffic will use the internal roads and there will be less available capacity for through traffic, making it a less desirable route.

## 10. Conclusion

- 10.1 This short report has demonstrated that the London Road Industrial Estate Access Scheme has delivered the full range of expected transport related benefits. Access to the Industrial Estate has been vastly improved, enabling the development and regeneration of the site.
- 10.2 The success of the redevelopment and regeneration of the site, and ability of the new junction and the wider network to accommodate the traffic associated with it, cannot be evaluated at this stage.

---

### Contact details:

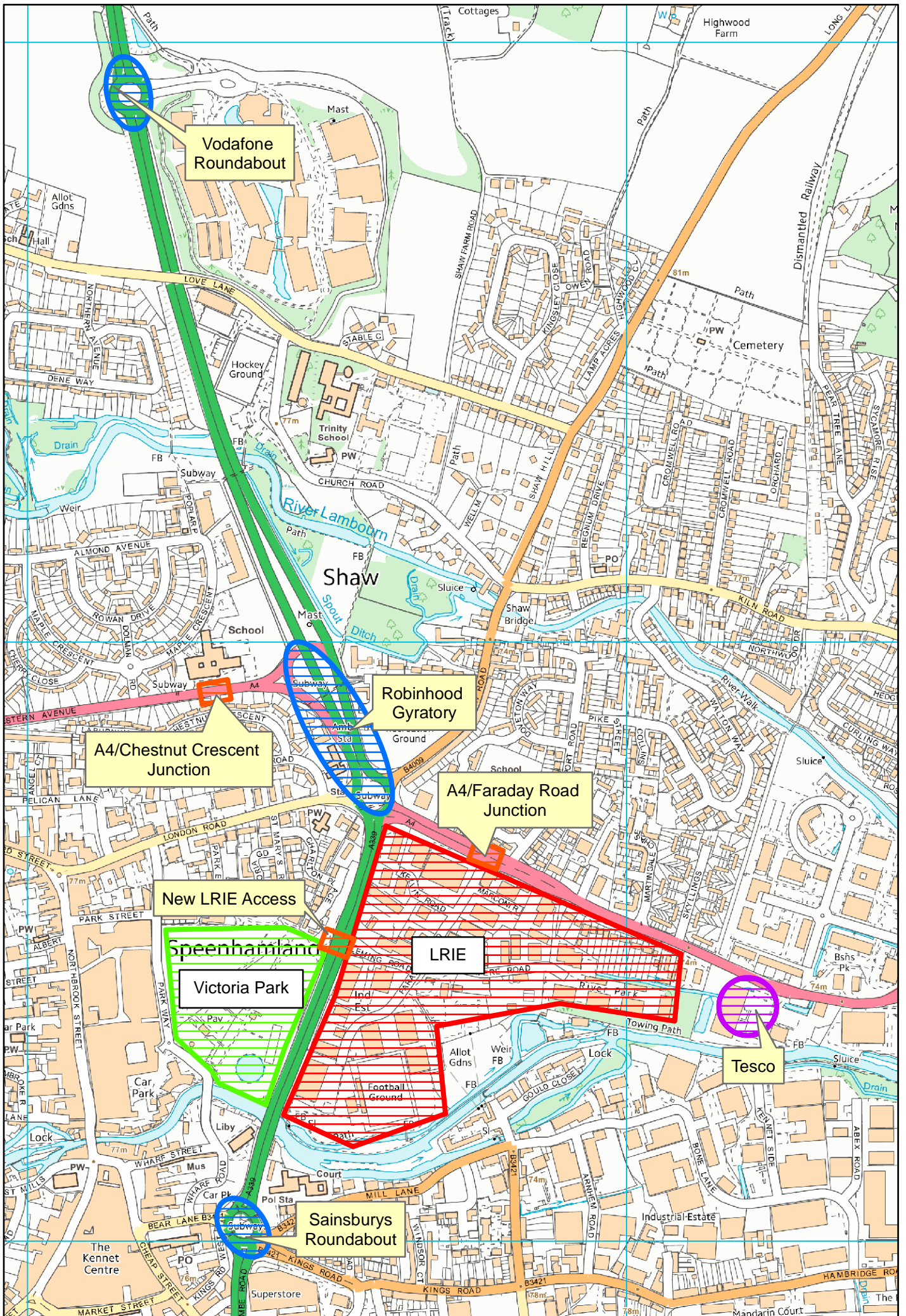
Name: Jenny Graham  
Job Title: Transport Policy Team Leader  
Tel No: 01635 519623  
E-mail Address: [Jenny.Graham@westberks.gov.uk](mailto:Jenny.Graham@westberks.gov.uk)

Name: Neil Stacey  
Job Title: Principal Engineer (Projects)  
Tel No: 01635 519113  
E-mail Address: [Neil.Stacey@westberks.gov.uk](mailto:Neil.Stacey@westberks.gov.uk)

---

## **Appendix 1 – Orientation Plan**





Vodafone Roundabout

A4/Chestnut Crescent Junction

Robinhood Gytratory

A4/Faraday Road Junction

New LRIE Access

LRIE

Victoria Park

Tesco

Sainsburys Roundabout

## **Appendix 2 – Before and After Routes to LRIE**



## Appendix 3 – Data Tables

### Traffic Volumes

ATC located on A339 between Sainsbury's and Robin Hood (south of LRIE access)

Date	May 2013	April 2017	Difference	% Difference
5 day average total flow (northbound)	21316	20874	-442	-2.1
5 day average am peak flow (northbound)	1770	1182	-588	-33.2
5 day average pm peak flow (northbound)	1639	1259	-380	-23.2
5 day average total flow (southbound)	21154	21047	-107	-0.5
5 day average am peak flow (southbound)	1666	1337	-329	-19.7
5 day average pm peak flow (southbound)	1770	1507	-263	-14.9
5 day average total flow (combined)	42470	41921	-549	-1.3
5 day average am peak flow (combined)	3436	2519	-917	-26.7
5 day average pm peak flow (combined)	3409	2766	-643	-18.9

## Turning Counts

### A339/Fleming Road (New LRIE Access) – April 2017

08:00 to 09:00		To		
		A339 (north)	A339 (south)	LRIE
From	A339 (north)	0	1460	20
	A339 (south)	1474	0	149
	LRIE	12	82	0

17:00 to 18:00		To		
		A339 (north)	A339 (south)	LRIE
From	A339 (north)	0	1662	7
	A339 (south)	1617	0	137
	LRIE	37	147	0

### A4/Faraday Road (Pre-existing LRIE Access)

08:00 to 09:00 May 2013		To		
		A4 (east)	A4 (west)	LRIE
From	A4 (east)	0	1154	114
	A4 (west)	892	0	207
	LRIE	42	95	0

08:00 to 09:00 April 2017		To		
		A4 (east)	A4 (west)	LRIE
From	A4 (east)	0	981	129
	A4 (west)	939	0	164
	LRIE	67	73	0

17:00 to 18:00 May 2013		To		
		A4 (east)	A4 (west)	LRIE
From	A4 (east)	0	1203	40
	A4 (west)	927	0	88
	LRIE	117	309	0

17:00 to 18:00 April 2017		To		
		A4 (east)	A4 (west)	LRIE
From	A4 (east)	0	923	76
	A4 (west)	787	0	85
	LRIE	167	179	0

## Journey Time Data Comparisons – A339 and A4

08:00 to 09:00 A339 “Sainsbury’s” roundabout to “Vodafone” roundabout journey times	
2013 northbound average	04:13
2017 northbound average	02:27
Time difference	01:47 faster
2013 southbound average	03:32
2017 southbound average	04:29
Time difference	00:57 slower

17:00 to 18:00 A339 “Sainsbury’s” roundabout to “Vodafone” roundabout journey times	
2013 northbound average	05:03
2017 northbound average	02:27
Time difference	02:35 faster
2013 southbound average	05:52
2017 southbound average	04:24
Time difference	01:28 faster

08:00 to 09:00 A4 Chestnut Crescent to Faraday Road journey times	
2013 eastbound average	03:15
2017 eastbound average	03:39
Time difference	00:25 slower
2013 westbound average	01:49
2017 westbound average	01:33
Time difference	00:16 faster

17:00 to 18:00 A4 Chestnut Crescent to Faraday Road journey times	
2013 eastbound average	02:19
2017 eastbound average	02:45
Time difference	00:25 slower
2013 westbound average	01:47
2017 westbound average	01:02
Time difference	00:45 faster