A37 Options and Feasibility Study

Local Model Validation Report

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Bath & North East Somerset Council

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CH2M HILL United Kingdom

1 The Square
Temple Quay
Bristol
BS1 6DG
T +44 (0)117 910 2580

www.jacobs.com

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1. Introduction

1.1 Background

Jacobs has been commissioned by Bath & North East Somerset Council (B&NES) to prepare and validate a microsimulation model for the A37 though Temple Cloud and Farrington Gurney. This model will provide a mechanism to assess transport proposals, notably their effect on the highway network and air quality.

1.2 Purpose of report

The primary purpose of this report is to document the overall “goodness-of-fit” achieved by the base model and to make recommendations on its suitability for future use

1.3 Structure of report

Following this introduction, the remainder of the report is structured as follows:

- **Section 2: Base Model Development** including details on the software used, the model extents, duration and any changes made to software parameters in line with best-practice recommendations;
- **Section 3: Base Model Calibration** including the comparison of observed and modelled turning flows;
- **Section 4: Model Validation** including the comparison of observed and modelled journey times; and
- **Section 5: Summary and Recommendations** including a summary of the model development process and the model’s overall suitability for future use.

2. Base Model Development

2.1 Software specification

The model has been developed in PTV VISSIM version 9.

2.2 Model extents

The model includes the A37 corridor from Cholwell Farm, located north of Temple Cloud, to the junction of the A37 with the A39, located at the top of Rush Hill to the south of Farrington Gurney. The model includes the following junctions / side roads:

- Temple Inn Lane;
- Cameley Lane;
- A39 Wells Road;
- Ham Lane / Church Lane; and
- A362 Farrington Gurney Bypass

The extent of the model is shown in **Figure 1**.

2.3 Model duration

The base model has been developed as a 12-hour weekday model between 07:00 and 19:00 based on manual classified counts (MCC) and automatic traffic counts (ATC). A 1-hour warm-up period has been included in the model.

2.4 Model parameters

The model parameters have largely been left as the defaults contained within VISSIM. While these defaults are often adjusted in accordance with microsimulation modelling best-practice to make driving behaviour more aggressive (e.g. by reducing standstill distances and gap safety factors), those guidelines primarily relate to urban environments rather than the rural and village environments found in this model. It is thought the default parameters are largely appropriate for the location.

The following parameter has been changed:

- **Reaction to Red/Amber at Signals: Stop** - To account for the fact that VISSIM treats the red-amber periods at traffic signals as though it were green time, an adjustment to the default reaction has been made. By setting the behaviour to “Stop” instead of “Go”, vehicle behaviour will more accurately reflect actual reaction times of drivers as they receive red-amber followed by green. This is in line with recommendations made in the Transport for London “Travel Modelling Guidelines version 3”.

2.5 Network development

2.5.1 Highway layout

Ordnance Survey (OS) landline mapping of the network area has been used for the purpose of confirming and extending the model. This provided details of the highway alignment and approximate intersection layouts, with this supplemented with detailed information on the highway layout obtained through aerial photography, as-built drawings and site visits in June and August 2019.

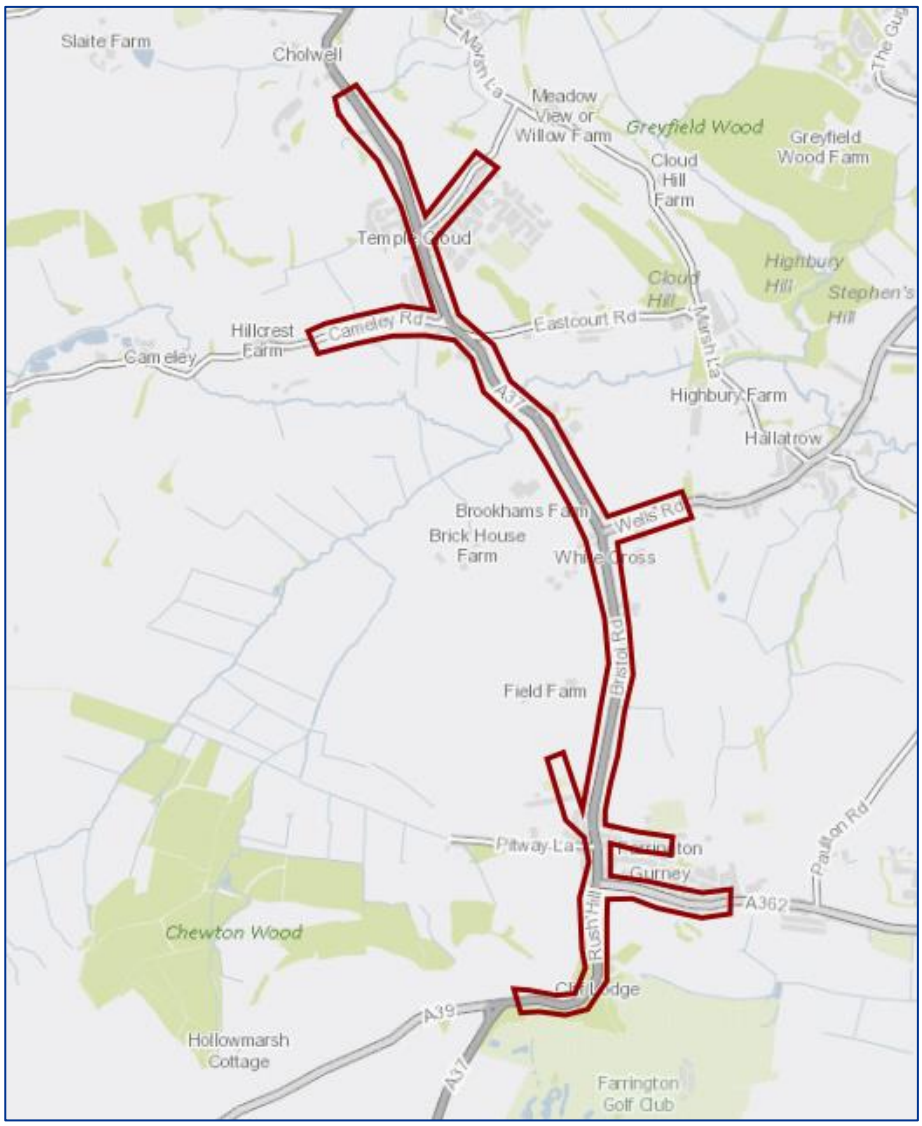


Figure 1: Model extents (Source: OS OpenData)

2.5.2 Traffic signals

The modelled network includes two traffic signal-controlled junctions operating under MOVA, these being:

- A37 / A39 Well Road ('Whitecross Gate'); and
- A37 / A362 Farrington Gurney Bypass

Junction layouts were provided by B&NES along with their MOVA diagrams and configuration files. Their operation has been approximated in VISSIM using Vehicle Actuated Programming (VAP). MOVA datasets were collected from the on-street controllers and used to set maximum green times in accordance with observed operation.

The model also includes a signalised pedestrian crossing on the A37 at Temple Inn Lane. This has been modelled using VAP so that the crossing is only activated by pedestrian demand. Demand for pedestrian crossings was estimated based on-site observations and existing knowledge of the area.

2.5.3 Public transport

Bus services operating within the modelled network have been coded using available online route maps and timetable information. These are summarised in Table 2. A random delay of between 0 and 130 seconds has

been applied to buses on entry into the model to replicate the randomness of arrival times. The public transport routes in the model are summarised in **Table 1**.

Table 1: Public transport routes

Service	Description	Northbound (12-hour)	Southbound (12-hour)
376	Mendip Xplorer (Bristol – Street)	25	25
172	Bath – Wells / Thicket Mead	22	23
177	Bristol – Midsomer Norton	1	1
144	Temple Cloud – Chew Valley School	1	1
754	Hinton Blewett – Norton Radstock	1	1

2.6 Model assignment

The model has been developed using dynamic assignment which requires flows to be entered as a matrix rather than on a route level. The modelled area does not have any real route choice, although VISSIM automatically detects all possible routes.

3. Model calibration

Model calibration is the process of replicating observed traffic flows, signals, network layout and driver behaviour in the VISSIM model.

3.1 Traffic flows

3.1.1 Observed data sources

The traffic flow data for the A37 model has been established from MCCs.

MCC surveys were undertaken on 11 June 2019 by Intelligent Data Collection Ltd. The locations of the count sites are the five junctions included in the model.

The traffic counts were transformed into matrices using SATURN's in-built matrix estimation tool SATME2. Separate matrices were produced for CAR, LGV, OGV1 and OGV2. The CAR matrices were then uplifted by 5% to ensure robustness.

In addition, ATC data was used to proportion the MCC data into 15-minute periods. The ATC data was collected by Intelligent Data Collection Ltd in the following two locations:

- In Temple Cloud between Temple Inn Lane and Gillets Hill Lane, from 10 June 2019 to 18 June 2019; and,
- In Farrington Gurney between Church Lane and Pitway Lane, from 10 June 2019 to 3 July 2019.

This A37 ATC data was also cross-referenced with ATC data from the A362 collected by Tracsis plc at the following locations on the dates stated:

- In Farrington Gurney at Farrington Way from 11 July 2019 to 17 July 2019;
- Between Farrington Fields and Old Mills Lane from 11 July 2019 to 17 July 2019; and,
- In Old Mills between Boxbury Hill and B3355 Northmead Road from 11 July 2019 to 17 July 2019.

3.2 Signal timings

Signal timings were informed by MOVA data logs collected at the following junctions on the dates stated:

- A37 / A39 Wells Road ('Whitecross Gate') on 2 October 2019
- A37 / A362 Farrington Gurney Bypass on 28 May 2019

3.3 Flow calibration

The GEH statistic has been adopted as the main indicator of the extent to which modelled flows match the corresponding observed values with modelled turning flows calibrated for each of the 12 modelled hours.

A summary of the "goodness-of-fit" achieved by the model is provided in **Table 2**. The table shows the proportion of turning flows within a GEH of 3.0 and 5.0. All turning flows were found to be within a GEH of 5, and there are only a small number of cases where they exceeded a GEH of 3.0. The full calibration results are provided in **Appendix A**.

Table 2: Base model calibration modelled turning flows

	GEH Turns <3.0				GEH Turns <5.0			
Hour	**CAR**	**LGV**	**OGV1**	**OGV2**	**CAR**	**LGV**	**OGV1**	**OGV2**
07:00 – 08:00	100%	98%	100%	100%	100%	100%	100%	100%
08:00 – 09:00	100%	100%	100%	100%	100%	100%	100%	100%
09:00 – 10:00	100%	100%	98%	100%	100%	100%	100%	100%
10:00 – 11:00	100%	100%	100%	100%	100%	100%	100%	100%
11:00 – 12:00	98%	100%	100%	100%	100%	100%	100%	100%
12:00 – 13:00	100%	100%	98%	100%	100%	100%	100%	100%
13:00 – 14:00	100%	100%	100%	100%	100%	100%	100%	100%
14:00 – 15:00	100%	100%	100%	100%	100%	100%	100%	100%
15:00 – 16:00	100%	100%	95%	100%	100%	100%	100%	100%
16:00 – 17:00	100%	98%	100%	100%	100%	100%	100%	100%
17:00 – 18:00	100%	100%	100%	100%	100%	100%	100%	100%
18:00 – 19:00	100%	100%	100%	100%	100%	100%	100%	100%

3.4 Calibration summary

Based on the results, an excellent fit between observed and modelled traffic flows has been achieved. The goodness-of-fit exceeds the standard recommended by best practice. As such, it is considered that the model provides an accurate representation of traffic flow conditions.

4. Model Validation

Validation is the process whereby modelled outputs are compared against independently collected observed data to provide an overall assessment of model robustness.

4.1 Network journey times

4.1.1 Observed data

Journey time data was obtained TomTom NV as measured by in-vehicle navigation devices. A total of 14 route sections have been assessed.

1. A37 southbound from New Cholwell Farm to Temple Inn Lane
2. A37 southbound from Temple Inn Lane to Cameley Road
3. A37 southbound from Cameley Road to A39 Wells Road
4. A37 southbound from A39 Wells Road to Church Lane / Ham Lane
5. A37 southbound from Church Lane / Ham Lane to A362 Farrington Gurney Bypass
6. A37 southbound from A362 Farrington Gurney Bypass to Rush Hill
7. A37 northbound from Rush Hill to A362 Farrington Gurney Bypass
8. A37 northbound from A362 Farrington Gurney Bypass to Church Lane / Ham Lane
9. A37 northbound from Church Lane / Ham Lane to A39 Wells Road
10. A37 northbound from A39 Wells Road to Cameley Road
11. A37 northbound from Cameley Road to Temple Inn Lane
12. A37 northbound from Temple Inn Lane to New Cholwell Farm
13. A362 westbound from Marsh Lane to A37
14. A362 eastbound from A37 to Marsh Lane

For the purposes of subsequent air quality emissions modelling and current ‘exceedance’ areas the most critical sections were those through the ‘narrowing’ in Temple Cloud (Sections 2 and 11), and the A37 southbound approach to the A362 junction (Section 5).

4.1.2 Target criteria

In keeping with recommendations set out by Transport for London (TfL) and the Design Manual for Roads and Bridges (DMRB), average modelled journey times within 15 per cent of the observed averages have been targeted in at least 85 per cent of cases.

4.1.3 Goodness-of-fit

The average results for the model across 10 simulation runs are provided in Table 3, Table 4 and Table 5.

Table 3: Modelled journey times (08:00 – 09:00)

ID	Section	Observed journey time (s)	Modelled journey time (s)	Difference (%)	Pass
1	A37 SB: Cholwell Farm to Temple Inn Lane	48	41	-14.5%	✓
2	A37 SB: Temple Inn Lane to Cameley Road	41	41	0.5%	✓
3	A37 SB: Cameley Road to A39 Wells Road	114	109	-3.9%	✓
4	A37 SB: A39 Wells Road to Chuch Lane / Ham Lane	136	91	-33.4%	×
5	A37 SB: Church Lane / Ham Lane to A362 FG Bypass	50	51	1.1%	✓
6	A37 SB: A362 FG Bypass to Rush Hill	49	47	-2.9%	✓
7	A37 NB: Rush Hill to A362 FG Bypass	67	63	-5.7%	✓
8	A37 NB: A362 FG Bypass to Church Lane / Ham Lane	22	20	-6.5%	✓
9	A37 NB: Church Lane / Ham Lane to A39 Wells Road	99	105	5.3%	✓
10	A37 NB: A39 Wells Road to Cameley Road	78	87	12.6%	✓
11	A37 NB: Cameley Road to Temple Inn Lane	46	41	-9.2%	✓
12	A37 NB: Temple Inn Lane to Cholwell Farm	40	42	4.7%	✓
13	A362 Farrington Gurney Bypass WB	75	80	6.8%	✓
14	A362 Farrington Gurney Bypass EB	31	28	-9.7%	✓
	A37 southbound total	**437**	**383**	**-12.5%**	✓
	A37 northbound total	**351**	**367**	**4.6%**	✓

In the AM peak, all the modelled journey time routes are within 15% of the observed data except route section. 4 (A37 southbound from A39 Wells Road to Church Lane / Ham Lane). This section is significantly faster in the model than was observed. It is likely that this is due to the influence of turning vehicle movements to and from locations that have not been included in the model and for which observed data has not been collected. These include:

- Local businesses such as the Radstock Co-operative supermarket and the Texaco petrol filling station; and
- Residential properties,

In addition, traffic in this section is likely slower moving than modelled in anticipation of the queue from the A362 signals. VISSIM struggles to model slow moving traffic well in advance of a queue, and instead simulates vehicles slowing rapidly as they approach the back of a queue rather than travelling slowly towards. Along the entire length of the A37 within the study area, the modelled journey times are within 15%. The southbound route is faster in the model than was observed (mostly due to route section 4), while the northbound route is slightly slower.

Table 4: Modelled journey times (10:00 – 16:00)

ID	Section	Observed journey time (s)	Modelled journey time (s)	Difference (%)	Pass
1	A37 SB: Cholwell Farm to Temple Inn Lane	45	40	-9.7%	✓
2	A37 SB: Temple Inn Lane to Cameley Road	42	41	-3.1%	✓
3	A37 SB: Cameley Road to A39 Wells Road	101	99	-1.8%	✓
4	A37 SB: A39 Wells Road to Chuch Lane / Ham Lane	93	87	-6.2%	✓
5	A37 SB: Church Lane / Ham Lane to A362 FG Bypass	40	37	-6.1%	✓
6	A37 SB: A362 FG Bypass to A39	49	47	-3.7%	✓
7	A37 NB: A39 to A362 FG Bypass	63	56	-10.1%	✓
8	A37 NB: A362 FG Bypass to Church Lane / Ham Lane	20	20	-2.0%	✓
9	A37 NB: Church Lane / Ham Lane to A39 Wells Road	93	93	0.0%	✓
10	A37 NB: A39 Wells Road to Cameley Road	80	84	5.0%	✓
11	A37 NB: Cameley Road to Temple Inn Lane	43	42	-3.3%	✓
12	A37 NB: Temple Inn Lane to Cholwell Farm	39	42	7.9%	✓
13	A362 Farrington Gurney Bypass WB	64	56	-12.1%	✓
14	A362 Farrington Gurney Bypass EB	29	28	-4.7%	✓
	A37 southbound total	**369**	**353**	**-4.2%**	✓
	A37 northbound total	**338**	**340**	**0.6%**	✓

In the inter-peak period, all modelled journey time sections are within 15% of the observed data. The southbound A37 continues to be slightly faster than the observed data.

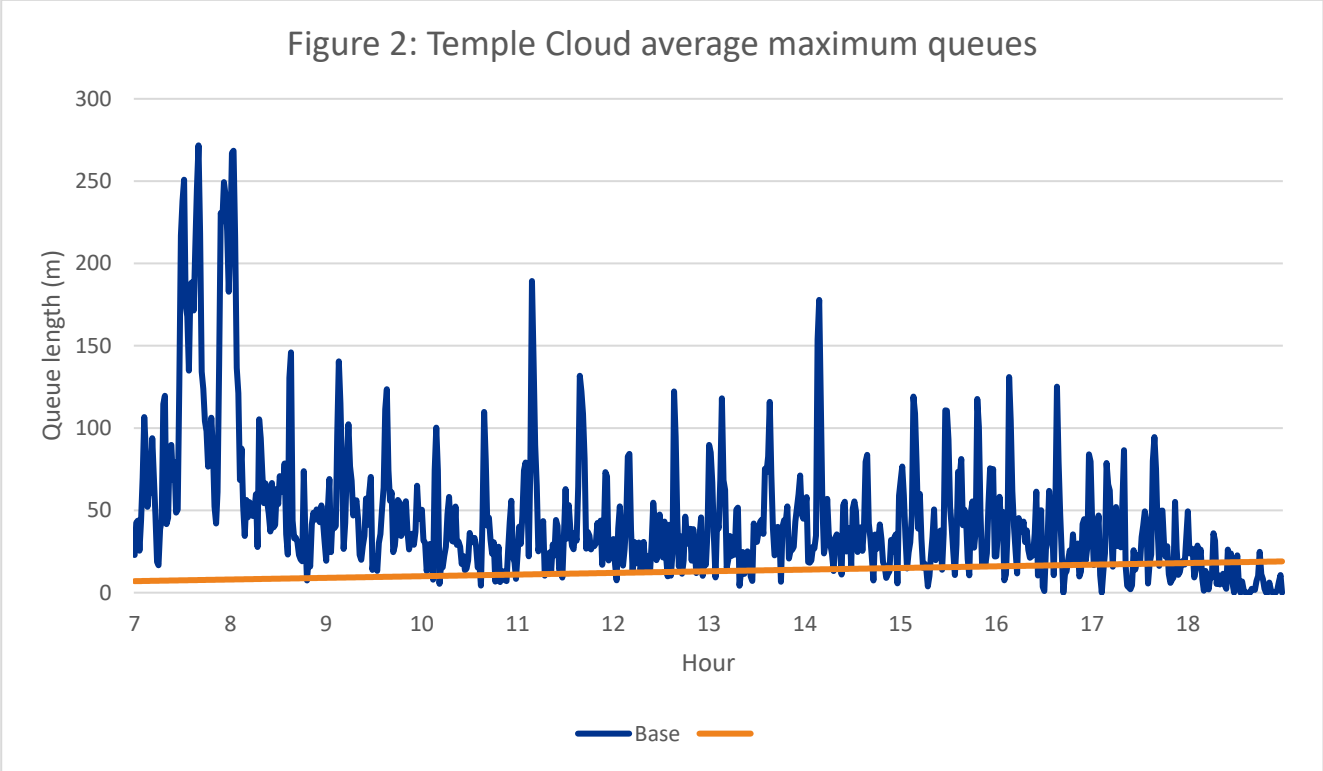
Table 5: Modelled journey times (17:00 – 18:00)

ID	Section	Observed journey time (s)	Modelled journey time (s)	Difference (%)	Pass
1	A37 SB: Cholwell Farm to Temple Inn Lane	45	41	-9.2%	✓
2	A37 SB: Temple Inn Lane to Cameley Road	37	39	6.6%	✓
3	A37 SB: Cameley Road to A39 Wells Road	113	110	-2.4%	✓
4	A37 SB: A39 Wells Road to Church Lane / Ham Lane	136	89	-34.9%	×
5	A37 SB: Church Lane / Ham Lane to A362 FG Bypass	51	49	-3.8%	✓
6	A37 SB: A362 FG Bypass to A39	52	46	-12.9%	✓
7	A37 NB: A39 to A362 FG Bypass	69	64	-8.5%	✓
8	A37 NB: A362 FG Bypass to Church Lane / Ham Lane	21	20	-6.0%	✓
9	A37 NB: Church Lane / Ham Lane to A39 Wells Road	103	98	-5.1%	✓
10	A37 NB: A39 Wells Road to Cameley Road	78	79	1.7%	✓
11	A37 NB: Cameley Road to Temple Inn Lane	42	40	-4.2%	✓
12	A37 NB: Temple Inn Lane to Cholwell Farm	39	41	5.9%	✓
13	A362 Farrington Gurney Bypass WB	80	8	4.2%	✓
14	A362 Farrington Gurney Bypass EB	30	28	-7.7%	✓
	A37 southbound total	**434**	**383**	**-11.8%**	**✓**
	A37 northbound total	**353**	**367**	**4.0%**	**✓**

In the PM peak, the results are very similar to those of the AM peak. Again, all the modelled journey time routes are within 15% of the observed data except route section 4. This route is once again faster in the model, likely for the same reasons as in the AM peak. This causes the overall A37 southbound route to be faster than the observed values. The A37 northbound route is again slightly slower.

4.2 Queue lengths

No queue surveys have been undertaken so it is not possible to directly compare modelled queues with observed data. However, a qualitative assessment can be made based on site visit observations. **Figure 2** illustrates the minute-by-minute average of 10 simulations for the maximum queue lengths approaching the narrow section in Temple Cloud. This shows that in the model the most severe queueing tends to occur in the southbound direction. This was generally supported by site observations. As southbound vehicles have a longer field of vision approaching the narrow section, they have more opportunity to give-way, and the presence of the filling station, signalised crossing and junction with Temple Inn Lane at the top of the hill also tends to compound the extent of queuing. Note that these sections, corresponding to route sections 2 and 11 above, validate in terms of travel time.



As these are minute-by-minute queue lengths, they are thus highly susceptible to the exact timing of the queues, and their effect may thus be understated when averaged across 10 simulations. Table 6 therefore presents the hourly maximum queue length averaged across 10 simulations. This better represents the actual maximum queues in each direction for a given hour. With this representation, the difference between the southbound and northbound queues is not quite as stark, with southbound maximum queues generally in the range of 1.5 to 2 times the length of the maximum northbound queues. It should be noted that most of the time there is no queue in these locations and that queue formation, while frequent, is also sporadic and temporary.

Table 6: Temple Cloud hourly average maximum queues

Hour	Southbound	Northbound
07:00 – 08:00	433 m	143 m
08:00 – 09:00	327 m	153 m
09:00 – 10:00	235 m	107 m
10:00 – 11:00	158 m	111 m
11:00 – 12:00	273 m	116 m
12:00 – 13:00	173 m	123 m
13:00 – 14:00	212 m	118 m

14:00 – 15:00	236 m	121 m
15:00 – 16:00	234 m	114 m
16:00 – 17:00	209 m	119 m
17:00 – 18:00	219 m	149 m
18:00 – 19:00	147 m	85 m

5. Summary

The 2019 12-hour model weekday model has been developed in accordance with nationally recognised best-practice guidance. Based on the average results presented in this report, the model can be shown to display a good fit against the available observed data, which meets and exceeds the recommended criteria for model calibration and validation.

Based on the results presented above, the model offers a realistic representation of reality and is therefore suitable for assessing transport scheme proposals.

Appendix A. Flow calibration results

Flow calibration results 07:00 – 08:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	311	117	29	31	348	128	30	29	-37	-11	-1	2	2.04	0.99	0.18	0.37
	A37 North	Temple Inn Lane	12	6	2	0	13	6	2	0	-1	0	0	0	0.28	0.00	0.00	0.00
	Temple Inn Lane	A37 North	48	7	0	0	49	7	0	0	-1	0	0	0	0.14	0.00	0.00	0.00
	Temple Inn Lane	A37 South	43	7	7	2	43	8	4	1	0	-1	3	1	0.00	0.37	1.28	0.82
	A37 South	Temple Inn Lane	15	4	1	0	15	3	1	0	0	1	0	0	0.00	0.53	0.00	0.00
	A37 South	A37 North	504	145	14	22	532	151	14	24	-28	-6	0	-2	1.23	0.49	0.00	0.42
A37 / Cameley Road	A37 North	Cameley Road	2	1	0	0	0	0	0	0	2	1	0	0	2.00	1.41	0.00	0.00
	A37 North	A37 South	352	124	36	32	379	133	34	30	-27	-9	2	2	1.41	0.79	0.34	0.36
	A37 South	A37 North	501	151	15	22	527	151	15	24	-26	0	0	-2	1.15	0.00	0.00	0.42
	A37 South	Cameley Road	11	2	2	0	9	2	0	0	2	0	2	0	0.63	0.00	2.00	0.00
	Cameley Road	A37 South	14	4	0	0	14	3	0	0	0	1	0	0	0.00	0.53	0.00	0.00
	Cameley Road	A37 North	19	3	0	0	19	3	0	0	0	0	0	0	0.00	0.00	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	0	9	1	0	0	0	0	0	0	9	1	0	0.00	4.24	1.41	0.00
	A37 North	A37 South	318	105	33	31	343	111	34	28	-25	-6	-1	3	1.38	0.58	0.17	0.55
	A37 North	A39 Wells Road	38	12	1	1	42	14	3	1	-4	-2	-2	0	0.63	0.55	1.41	0.00
	A39 Wells Road	A37 North	108	33	1	1	108	32	1	1	0	1	0	0	0.00	0.18	0.00	0.00
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	111	54	8	0	114	56	9	1	-3	-2	-1	-1	0.28	0.27	0.34	1.41
	A37 South	A39 Wells Road	167	38	12	13	173	38	9	11	-6	0	3	2	0.46	0.00	0.93	0.58
	A37 South	A37 North	404	120	15	21	413	125	17	22	-9	-5	-2	-1	0.45	0.45	0.50	0.22
	A37 South	Green Lane	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 South	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A39 Wells Road	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 North	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	0	1	0	0	2	2	0	0	-2	-1	0	0	2.00	0.82	0.00	0.00
	A37 North	A37 South	417	157	39	30	443	158	45	30	-26	-1	-6	0	1.25	0.08	0.93	0.00
	A37 North	Church Lane	7	0	0	0	7	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 North	4	0	0	0	5	0	0	0	-1	0	0	0	0.47	0.00	0.00	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	2	2	0	0	2	1	0	0	0	1	0	0	0.00	0.82	0.00	0.00
	A37 South	Church Lane	0	0	0	0	1	0	0	0	-1	0	0	0	1.41	0.00	0.00	0.00
	A37 South	A37 North	564	154	28	34	593	160	26	34	-29	-6	2	0	1.21	0.48	0.38	0.00
	A37 South	Ham Lane	3	0	0	0	3	2	0	0	0	-2	0	0	0.00	2.00	0.00	0.00
	Ham Lane	A37 South	4	2	0	0	2	1	0	0	2	1	0	0	1.15	0.82	0.00	0.00
	Ham Lane	Church Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	1	2	0	0	2	2	0	0	-1	0	0	0	0.82	0.00	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	278	121	27	25	288	118	30	25	-10	3	-3	0	0.59	0.27	0.56	0.00
	A37 North	A362	145	42	12	5	149	43	12	1	-4	-1	0	4	0.33	0.15	0.00	2.31
	A362	A37 North	193	71	8	6	205	78	7	4	-12	-7	1	2	0.85	0.81	0.37	0.89
	A362	A37 South	109	38	5	1	118	43	5	1	-9	-5	0	0	0.84	0.79	0.00	0.00
	A37 South	A362	100	25	2	4	100	24	2	4	0	1	0	0	0.00	0.20	0.00	0.00
	A37 South	A37 North	384	81	19	29	388	85	19	31	-4	-4	0	-2	0.20	0.44	0.00	0.37

Flow calibration results 08:00 – 09:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	332	92	30	20	327	86	28	20	5	6	2	0	0.28	0.64	0.37	0.00
	A37 North	Temple Inn Lane	36	4	4	0	37	4	2	0	-1	0	2	0	0.17	0.00	1.15	0.00
	Temple Inn Lane	A37 North	64	4	0	1	62	4	1	1	2	0	-1	0	0.25	0.00	1.41	0.00
	Temple Inn Lane	A37 South	47	7	4	3	48	6	3	1	-1	1	1	2	0.15	0.39	0.53	1.41
	A37 South	Temple Inn Lane	49	3	0	2	52	4	1	1	-3	-1	-1	1	0.42	0.53	1.41	0.82
	A37 South	A37 North	483	90	22	18	492	79	19	20	-9	11	3	-2	0.41	1.20	0.66	0.46
A37 / Cameley Road	A37 North	Cameley Road	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 North	A37 South	377	98	34	24	371	88	31	21	6	10	3	3	0.31	1.04	0.53	0.63
	A37 South	A37 North	512	86	22	21	516	79	19	21	-4	7	3	0	0.18	0.77	0.66	0.00
	A37 South	Cameley Road	5	6	0	0	4	6	0	0	1	0	0	0	0.47	0.00	0.00	0.00
	Cameley Road	A37 South	19	8	0	0	17	7	1	0	2	1	-1	0	0.47	0.37	1.41	0.00
	Cameley Road	A37 North	23	3	0	0	23	3	0	0	0	0	0	0	0.00	0.00	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	0	0	0	0	1	0	0	0	-1	0	0	0	1.41	0.00	0.00	0.00
	A37 North	A37 South	347	91	32	23	315	87	30	20	32	4	2	3	1.76	0.42	0.36	0.65
	A37 North	A39 Wells Road	63	16	2	0	62	15	2	0	1	1	0	0	0.13	0.25	0.00	0.00
	A39 Wells Road	A37 North	100	16	4	0	99	16	2	0	1	0	2	0	0.10	0.00	1.15	0.00
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	135	42	10	9	128	38	9	8	7	4	1	1	0.61	0.63	0.32	0.34
	A37 South	A39 Wells Road	149	33	9	3	148	36	11	5	1	-3	-2	-2	0.08	0.51	0.63	1.00
	A37 South	A37 North	416	74	15	22	414	71	14	22	2	3	1	0	0.10	0.35	0.26	0.00
	A37 South	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 South	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A39 Wells Road	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 North	0	0	3	0	0	0	0	0	0	0	3	0	0.00	0.00	2.45	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	0	0	1	0	0	0	0	0	0	0	1	0	0.00	0.00	1.41	0.00
	A37 North	A37 South	465	135	43	32	446	129	41	28	19	6	2	4	0.89	0.52	0.31	0.73
	A37 North	Church Lane	7	0	0	0	7	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 North	16	2	1	0	16	2	0	0	0	0	1	0	0.00	0.00	1.41	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	11	0	0	0	11	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	Church Lane	7	0	1	0	8	1	1	0	-1	-1	0	0	0.37	1.41	0.00	0.00
	A37 South	A37 North	549	105	21	28	536	100	25	27	13	5	-4	1	0.56	0.49	0.83	0.19
	A37 South	Ham Lane	6	2	0	0	6	2	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 South	1	0	0	0	2	0	0	0	-1	0	0	0	0.82	0.00	0.00	0.00
	Ham Lane	Church Lane	2	0	0	0	2	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	2	1	0	0	3	2	0	0	-1	-1	0	0	0.63	0.82	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	295	98	32	25	287	96	30	23	8	2	2	2	0.47	0.20	0.36	0.41
	A37 North	A362	183	36	11	7	186	36	12	6	-3	0	-1	1	0.22	0.00	0.29	0.39
	A362	A37 North	212	49	6	2	209	42	6	2	3	7	0	0	0.21	1.04	0.00	0.00
	A362	A37 South	144	25	10	3	139	23	9	4	5	2	1	-1	0.42	0.41	0.32	0.53
	A37 South	A362	118	23	6	0	117	27	5	1	1	-4	1	-1	0.09	0.80	0.43	1.41
	A37 South	A37 North	347	58	17	25	348	59	18	24	-1	-1	-1	1	0.05	0.13	0.24	0.20

Flow calibration results 09:00 – 10:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	252	71	31	28	269	69	26	29	-17	2	5	-1	1.05	0.24	0.94	0.19
	A37 North	Temple Inn Lane	13	7	0	0	13	7	1	0	0	0	-1	0	0.00	0.00	1.41	0.00
	Temple Inn Lane	A37 North	32	4	1	1	34	4	0	1	-2	0	1	0	0.35	0.00	1.41	0.00
	Temple Inn Lane	A37 South	41	9	1	0	41	14	2	1	0	-5	-1	-1	0.00	1.47	0.82	1.41
	A37 South	Temple Inn Lane	28	10	3	0	26	10	3	0	2	0	0	0	0.38	0.00	0.00	0.00
	A37 South	A37 North	362	86	24	22	352	92	25	21	10	-6	-1	1	0.53	0.64	0.20	0.22
A37 / Cameley Road	A37 North	Cameley Road	2	2	0	0	1	1	0	0	1	1	0	0	0.82	0.82	0.00	0.00
	A37 North	A37 South	293	78	32	28	302	80	28	29	-9	-2	4	-1	0.52	0.23	0.73	0.19
	A37 South	A37 North	368	93	27	22	370	99	29	21	-2	-6	-2	1	0.10	0.61	0.38	0.22
	A37 South	Cameley Road	21	6	1	1	22	9	0	0	-1	-3	1	1	0.22	1.10	1.41	1.41
	Cameley Road	A37 South	24	8	1	0	25	7	1	0	-1	1	0	0	0.20	0.37	0.00	0.00
	Cameley Road	A37 North	17	3	0	0	14	3	0	0	3	0	0	0	0.76	0.00	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	0	0	2	0	0	0	1	0	0	0	1	0	0.00	0.00	0.82	0.00
	A37 North	A37 South	263	72	29	30	260	70	25	30	3	2	4	0	0.19	0.24	0.77	0.00
	A37 North	A39 Wells Road	54	13	2	0	52	16	3	0	2	-3	-1	0	0.27	0.79	0.63	0.00
	A39 Wells Road	A37 North	74	29	3	0	73	30	4	1	1	-1	-1	-1	0.12	0.18	0.53	1.41
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	134	28	9	7	130	28	10	8	4	0	-1	-1	0.35	0.00	0.32	0.37
	A37 South	A39 Wells Road	131	29	11	8	121	27	9	5	10	2	2	3	0.89	0.38	0.63	1.18
	A37 South	A37 North	316	70	24	22	312	75	24	19	4	-5	0	3	0.23	0.59	0.00	0.66
	A37 South	Green Lane	0	0	0	2	0	0	0	0	0	0	0	2	0.00	0.00	0.00	2.00
	Green Lane	A37 South	4	0	0	0	3	0	0	0	1	0	0	0	0.53	0.00	0.00	0.00
	Green Lane	A39 Wells Road	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 North	0	2	2	0	0	0	2	1	0	2	0	-1	0.00	2.00	0.00	1.41
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	2	0	5	0	1	0	0	0	1	0	5	0	0.82	0.00	3.16	0.00
	A37 North	A37 South	400	98	31	35	379	101	32	38	21	-3	-1	-3	1.06	0.30	0.18	0.50
	A37 North	Church Lane	6	1	2	0	4	1	1	0	2	0	1	0	0.89	0.00	0.82	0.00
	Church Lane	A37 North	1	4	0	0	2	0	0	0	-1	4	0	0	0.82	2.83	0.00	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	2	1	0	0	3	0	0	0	-1	1	0	0	0.63	1.41	0.00	0.00
	A37 South	Church Lane	3	0	1	0	3	0	1	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	A37 North	442	93	37	29	427	91	33	25	15	2	4	4	0.72	0.21	0.68	0.77
	A37 South	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 South	1	0	0	0	4	1	0	0	-3	-1	0	0	1.90	1.41	0.00	0.00
	Ham Lane	Church Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	0	1	0	0	0	0	0	0	0	1	0	0	0.00	1.41	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	243	66	19	29	236	67	19	30	7	-1	0	-1	0.45	0.12	0.00	0.18
	A37 North	A362	160	35	12	6	161	32	11	7	-1	3	1	-1	0.08	0.52	0.29	0.39
	A362	A37 North	155	32	10	5	144	31	7	3	11	1	3	2	0.90	0.18	1.03	1.00
	A362	A37 South	98	29	5	7	95	26	4	7	3	3	1	0	0.31	0.57	0.47	0.00
	A37 South	A362	105	23	4	9	108	21	5	8	-3	2	-1	1	0.29	0.43	0.47	0.34
	A37 South	A37 North	280	62	28	25	281	62	29	24	-1	0	-1	1	0.06	0.00	0.19	0.20

Flow calibration results 10:00 – 11:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	267	71	25	26	271	63	24	26	-4	8	1	0	0.24	0.98	0.20	0.00
	A37 North	Temple Inn Lane	19	8	2	2	20	5	2	1	-1	3	0	1	0.23	1.18	0.00	0.82
	Temple Inn Lane	A37 North	24	6	2	0	22	6	2	0	2	0	0	0	0.42	0.00	0.00	0.00
	Temple Inn Lane	A37 South	34	5	0	0	35	3	1	0	-1	2	-1	0	0.17	1.00	1.41	0.00
	A37 South	Temple Inn Lane	22	10	1	0	22	7	1	0	0	3	0	0	0.00	1.03	0.00	0.00
	A37 South	A37 North	318	77	29	25	302	69	27	26	16	8	2	-1	0.91	0.94	0.38	0.20
A37 / Cameley Road	A37 North	Cameley Road	5	0	0	0	5	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 North	A37 South	295	75	25	26	292	69	25	25	3	6	0	1	0.18	0.71	0.00	0.20
	A37 South	A37 North	327	83	30	24	301	74	27	26	26	9	3	-2	1.47	1.02	0.56	0.40
	A37 South	Cameley Road	15	5	0	0	14	5	1	0	1	0	-1	0	0.26	0.00	1.41	0.00
	Cameley Road	A37 South	21	5	1	0	22	4	1	0	-1	1	0	0	0.22	0.47	0.00	0.00
	Cameley Road	A37 North	17	5	0	0	19	4	0	0	-2	1	0	0	0.47	0.47	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	1	0	0	0	1	0	0	1	0	0	0	-1	0.00	0.00	0.00	1.41
	A37 North	A37 South	275	72	23	24	281	66	24	23	-6	6	-1	1	0.36	0.72	0.21	0.21
	A37 North	A39 Wells Road	38	12	3	1	38	8	3	1	0	4	0	0	0.00	1.26	0.00	0.00
	A39 Wells Road	A37 North	73	16	6	0	74	17	5	0	-1	-1	1	0	0.12	0.25	0.43	0.00
	A39 Wells Road	Green Lane	0	2	0	0	0	1	0	0	0	1	0	0	0.00	0.82	0.00	0.00
	A39 Wells Road	A37 South	92	21	14	10	94	21	14	10	-2	0	0	0	0.21	0.00	0.00	0.00
	A37 South	A39 Wells Road	98	23	2	9	101	22	3	11	-3	1	-1	-2	0.30	0.21	0.63	0.63
	A37 South	A37 North	261	69	25	25	243	62	23	25	18	7	2	0	1.13	0.86	0.41	0.00
	A37 South	Green Lane	1	1	0	1	1	0	0	0	0	1	0	1	0.00	1.41	0.00	1.41
	Green Lane	A37 South	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A39 Wells Road	1	0	0	0	0	0	0	0	1	0	0	0	1.41	0.00	0.00	0.00
	Green Lane	A37 North	3	1	0	1	2	2	0	1	1	-1	0	0	0.63	0.82	0.00	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	4	0	0	0	3	1	0	0	1	-1	0	0	0.53	1.41	0.00	0.00
	A37 North	A37 South	365	92	35	37	362	89	39	35	3	3	-4	2	0.16	0.32	0.66	0.33
	A37 North	Church Lane	2	1	0	0	3	1	0	0	-1	0	0	0	0.63	0.00	0.00	0.00
	Church Lane	A37 North	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	1	0	1	0	1	1	1	0	0	-1	0	0	0.00	1.41	0.00	0.00
	A37 South	Church Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	A37 North	351	92	26	36	344	82	25	36	7	10	1	0	0.38	1.07	0.20	0.00
	A37 South	Ham Lane	3	2	3	0	3	2	1	0	0	0	2	0	0.00	0.00	1.41	0.00
	Ham Lane	A37 South	5	3	0	0	5	1	1	0	0	2	-1	0	0.00	1.41	1.41	0.00
	Ham Lane	Church Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	1	1	0	0	1	1	0	0	0	0	0	0	0.00	0.00	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	214	60	25	29	215	58	29	29	-1	2	-4	0	0.07	0.26	0.77	0.00
	A37 North	A362	154	33	10	7	152	33	9	7	2	0	1	0	0.16	0.00	0.32	0.00
	A362	A37 North	131	27	10	4	130	28	9	4	1	-1	1	0	0.09	0.19	0.32	0.00
	A362	A37 South	87	12	9	7	85	12	9	7	2	0	0	0	0.22	0.00	0.00	0.00
	A37 South	A362	68	19	12	7	67	19	11	7	1	0	1	0	0.12	0.00	0.29	0.00
	A37 South	A37 North	221	67	18	31	214	64	18	33	7	3	0	-2	0.47	0.37	0.00	0.35

Flow calibration results 11:00 – 12:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	251	74	15	30	270	68	16	28	-19	6	-1	2	1.18	0.71	0.25	0.37
	A37 North	Temple Inn Lane	26	3	1	0	27	3	1	0	-1	0	0	0	0.19	0.00	0.00	0.00
	Temple Inn Lane	A37 North	21	2	0	1	22	2	0	1	-1	0	0	0	0.22	0.00	0.00	0.00
	Temple Inn Lane	A37 South	35	5	3	0	34	3	4	0	1	2	-1	0	0.17	1.00	0.53	0.00
	A37 South	Temple Inn Lane	34	4	6	0	35	5	5	0	-1	-1	1	0	0.17	0.47	0.43	0.00
	A37 South	A37 North	284	92	36	22	290	88	34	22	-6	4	2	0	0.35	0.42	0.34	0.00
A37 / Cameley Road	A37 North	Cameley Road	2	2	0	0	1	1	0	0	1	1	0	0	0.82	0.82	0.00	0.00
	A37 North	A37 South	285	79	17	28	298	77	18	30	-13	2	-1	-2	0.76	0.23	0.24	0.37
	A37 South	A37 North	305	91	40	22	311	86	39	22	-6	5	1	0	0.34	0.53	0.16	0.00
	A37 South	Cameley Road	18	4	1	1	19	4	2	1	-1	0	-1	0	0.23	0.00	0.82	0.00
	Cameley Road	A37 South	22	8	1	0	19	7	1	0	3	1	0	0	0.66	0.37	0.00	0.00
	Cameley Road	A37 North	9	3	2	0	10	3	0	0	-1	0	2	0	0.32	0.00	2.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	5	1	0	0	0	0	0	1	5	1	0	-1	3.16	1.41	0.00	1.41
	A37 North	A37 South	265	71	17	28	263	68	18	29	2	3	-1	-1	0.12	0.36	0.24	0.19
	A37 North	A39 Wells Road	37	13	1	0	37	15	1	0	0	-2	0	0	0.00	0.53	0.00	0.00
	A39 Wells Road	A37 North	51	14	5	0	54	16	6	0	-3	-2	-1	0	0.41	0.52	0.43	0.00
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	119	30	7	4	122	28	6	4	-3	2	1	0	0.27	0.37	0.39	0.00
	A37 South	A39 Wells Road	123	26	8	10	120	25	9	10	3	1	-1	0	0.27	0.20	0.34	0.00
	A37 South	A37 North	277	81	35	22	272	73	34	23	5	8	1	-1	0.30	0.91	0.17	0.21
	A37 South	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 South	5	0	0	0	4	0	0	0	1	0	0	0	0.47	0.00	0.00	0.00
	Green Lane	A39 Wells Road	0	3	0	0	0	2	0	0	0	1	0	0	0.00	0.63	0.00	0.00
	Green Lane	A37 North	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	0	2	0	2	0	1	0	0	0	1	0	2	0.00	0.82	0.00	2.00
	A37 North	A37 South	377	100	25	29	383	94	24	32	-6	6	1	-3	0.31	0.61	0.20	0.54
	A37 North	Church Lane	6	0	0	1	7	0	0	0	-1	0	0	1	0.39	0.00	0.00	1.41
	Church Lane	A37 North	3	0	1	0	2	0	0	0	1	0	1	0	0.63	0.00	1.41	0.00
	Church Lane	Ham Lane	0	0	1	0	0	0	0	0	0	0	1	0	0.00	0.00	1.41	0.00
	Church Lane	A37 South	1	0	1	0	1	0	1	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	Church Lane	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	A37 North	395	107	39	31	390	104	42	32	5	3	-3	-1	0.25	0.29	0.47	0.18
	A37 South	Ham Lane	4	2	0	0	5	1	0	0	-1	1	0	0	0.47	0.82	0.00	0.00
	Ham Lane	A37 South	6	0	0	0	5	1	0	0	1	-1	0	0	0.43	1.41	0.00	0.00
	Ham Lane	Church Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	4	3	3	0	4	1	0	0	0	2	3	0	0.00	1.41	2.45	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	234	61	17	27	229	56	16	30	5	5	1	-3	0.33	0.65	0.25	0.56
	A37 North	A362	153	41	9	3	158	40	11	1	-5	1	-2	2	0.40	0.16	0.63	1.41
	A362	A37 North	175	32	18	5	177	33	17	5	-2	-1	1	0	0.15	0.18	0.24	0.00
	A362	A37 South	75	16	4	4	75	15	4	4	0	1	0	0	0.00	0.25	0.00	0.00
	A37 South	A362	78	22	5	7	79	21	5	6	-1	1	0	1	0.11	0.22	0.00	0.39
	A37 South	A37 North	226	76	21	26	226	72	22	27	0	4	-1	-1	0.00	0.46	0.22	0.19

Flow calibration results 12:00 – 13:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	248	74	25	27	267	65	26	24	-19	9	-1	3	1.18	1.08	0.20	0.59
	A37 North	Temple Inn Lane	24	0	0	0	24	1	0	0	0	-1	0	0	0.00	1.41	0.00	0.00
	Temple Inn Lane	A37 North	23	4	4	0	23	4	4	0	0	0	0	0	0.00	0.00	0.00	0.00
	Temple Inn Lane	A37 South	28	4	3	0	30	5	2	0	-2	-1	1	0	0.37	0.47	0.63	0.00
	A37 South	Temple Inn Lane	32	7	0	0	32	5	2	0	0	2	-2	0	0.00	0.82	2.00	0.00
	A37 South	A37 North	293	66	31	25	297	69	31	25	-4	-3	0	0	0.23	0.37	0.00	0.00
A37 / Cameley Road	A37 North	Cameley Road	1	0	0	0	1	0	1	0	0	0	-1	0	0.00	0.00	1.41	0.00
	A37 North	A37 South	274	77	29	29	285	75	28	24	-11	2	1	5	0.66	0.23	0.19	0.97
	A37 South	A37 North	314	67	30	25	314	69	32	24	0	-2	-2	1	0.00	0.24	0.36	0.20
	A37 South	Cameley Road	22	7	2	0	19	7	1	0	3	0	1	0	0.66	0.00	0.82	0.00
	Cameley Road	A37 South	25	1	0	0	25	2	0	0	0	-1	0	0	0.00	0.82	0.00	0.00
	Cameley Road	A37 North	16	6	2	1	15	5	1	1	1	1	1	0	0.25	0.43	0.82	0.00
A37 / A39 Wells Road	A37 North	Green Lane	2	0	0	0	0	0	0	0	2	0	0	0	2.00	0.00	0.00	0.00
	A37 North	A37 South	245	71	26	29	245	72	25	26	0	-1	1	3	0.00	0.12	0.20	0.57
	A37 North	A39 Wells Road	52	9	4	0	52	10	2	0	0	-1	2	0	0.00	0.32	1.15	0.00
	A39 Wells Road	A37 North	49	11	2	1	48	10	2	1	1	1	0	0	0.14	0.31	0.00	0.00
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	124	25	7	11	123	29	6	9	1	-4	1	2	0.09	0.77	0.39	0.63
	A37 South	A39 Wells Road	111	29	6	6	115	27	8	6	-4	2	-2	0	0.38	0.38	0.76	0.00
	A37 South	A37 North	284	63	30	22	286	63	29	23	-2	0	1	-1	0.12	0.00	0.18	0.21
	A37 South	Green Lane	0	0	6	0	0	0	0	0	0	0	6	0	0.00	0.00	3.46	0.00
	Green Lane	A37 South	0	0	0	0	1	0	0	0	-1	0	0	0	1.41	0.00	0.00	0.00
	Green Lane	A39 Wells Road	0	0	0	0	1	0	0	0	-1	0	0	0	1.41	0.00	0.00	0.00
	Green Lane	A37 North	0	0	0	1	0	0	0	0	0	0	0	1	0.00	0.00	0.00	1.41
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	0	4	0	3	2	1	0	0	-2	3	0	3	2.00	1.90	0.00	2.45
	A37 North	A37 South	368	89	32	34	373	94	31	31	-5	-5	1	3	0.26	0.52	0.18	0.53
	A37 North	Church Lane	3	3	0	2	6	1	0	0	-3	2	0	2	1.41	1.41	0.00	2.00
	Church Lane	A37 North	1	1	0	0	2	1	0	0	-1	0	0	0	0.82	0.00	0.00	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	3	0	0	0	2	1	0	0	1	-1	0	0	0.63	1.41	0.00	0.00
	A37 South	Church Lane	2	0	0	0	1	0	0	0	1	0	0	0	0.82	0.00	0.00	0.00
	A37 South	A37 North	391	89	42	29	392	87	41	27	-1	2	1	2	0.05	0.21	0.16	0.38
	A37 South	Ham Lane	4	0	0	0	5	0	0	0	-1	0	0	0	0.47	0.00	0.00	0.00
	Ham Lane	A37 South	0	1	0	0	2	2	0	0	-2	-1	0	0	2.00	0.82	0.00	0.00
	Ham Lane	Church Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	6	0	0	0	3	0	0	0	3	0	0	0	1.41	0.00	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	219	54	21	27	227	57	22	27	-8	-3	-1	0	0.54	0.40	0.22	0.00
	A37 North	A362	152	35	12	6	149	36	10	4	3	-1	2	2	0.24	0.17	0.60	0.89
	A362	A37 North	182	37	12	6	178	35	14	6	4	2	-2	0	0.30	0.33	0.55	0.00
	A362	A37 South	94	14	8	1	95	14	7	1	-1	0	1	0	0.10	0.00	0.37	0.00
	A37 South	A362	85	24	4	2	85	25	4	2	0	-1	0	0	0.00	0.20	0.00	0.00
	A37 South	A37 North	218	51	30	23	221	52	30	21	-3	-1	0	2	0.20	0.14	0.00	0.43

Flow calibration results 13:00 – 14:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	283	68	24	26	291	68	20	25	-8	0	4	1	0.47	0.00	0.85	0.20
	A37 North	Temple Inn Lane	17	3	0	3	17	3	1	2	0	0	-1	1	0.00	0.00	1.41	0.63
	Temple Inn Lane	A37 North	21	3	0	0	22	3	0	0	-1	0	0	0	0.22	0.00	0.00	0.00
	Temple Inn Lane	A37 South	34	6	1	2	34	7	2	2	0	-1	-1	0	0.00	0.39	0.82	0.00
	A37 South	Temple Inn Lane	46	4	3	0	41	5	4	0	5	-1	-1	0	0.76	0.47	0.53	0.00
	A37 South	A37 North	284	68	37	25	261	65	37	25	23	3	0	0	1.39	0.37	0.00	0.00
A37 / Cameley Road	A37 North	Cameley Road	5	1	0	0	4	0	0	0	1	1	0	0	0.47	1.41	0.00	0.00
	A37 North	A37 South	311	73	25	28	313	62	22	27	-2	11	3	1	0.11	1.34	0.62	0.19
	A37 South	A37 North	318	71	40	24	297	70	42	26	21	1	-2	-2	1.20	0.12	0.31	0.40
	A37 South	Cameley Road	9	3	0	0	9	4	0	0	0	-1	0	0	0.00	0.53	0.00	0.00
	Cameley Road	A37 South	13	3	0	0	14	2	1	0	-1	1	-1	0	0.27	0.63	1.41	0.00
	Cameley Road	A37 North	12	2	0	0	10	1	0	0	2	1	0	0	0.60	0.82	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 North	A37 South	278	62	23	28	271	56	21	25	7	6	2	3	0.42	0.78	0.43	0.58
	A37 North	A39 Wells Road	47	13	2	0	49	14	2	0	-2	-1	0	0	0.29	0.27	0.00	0.00
	A39 Wells Road	A37 North	45	11	7	0	46	11	7	0	-1	0	0	0	0.15	0.00	0.00	0.00
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	96	26	6	18	94	25	6	17	2	1	0	1	0.21	0.20	0.00	0.24
	A37 South	A39 Wells Road	110	25	11	17	104	24	9	18	6	1	2	-1	0.58	0.20	0.63	0.24
	A37 South	A37 North	278	66	31	24	267	67	34	26	11	-1	-3	-2	0.67	0.12	0.53	0.40
	A37 South	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 South	0	0	0	0	1	0	0	0	-1	0	0	0	1.41	0.00	0.00	0.00
	Green Lane	A39 Wells Road	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 North	0	0	2	0	1	0	0	0	-1	0	2	0	1.41	0.00	2.00	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	1	1	1	0	2	0	0	0	-1	1	1	0	0.82	1.41	1.41	0.00
	A37 North	A37 South	372	87	29	44	363	82	28	42	9	5	1	2	0.47	0.54	0.19	0.30
	A37 North	Church Lane	5	0	0	0	6	1	0	0	-1	-1	0	0	0.43	1.41	0.00	0.00
	Church Lane	A37 North	3	1	1	0	3	2	0	0	0	-1	1	0	0.00	0.82	1.41	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	0	0	0	1	0	0	0	0	0	0	0	1	0.00	0.00	0.00	1.41
	A37 South	Church Lane	2	0	0	0	1	0	0	0	1	0	0	0	0.82	0.00	0.00	0.00
	A37 South	A37 North	385	90	40	41	369	99	41	44	16	-9	-1	-3	0.82	0.93	0.16	0.46
	A37 South	Ham Lane	6	0	0	0	6	1	0	0	0	-1	0	0	0.00	1.41	0.00	0.00
	Ham Lane	A37 South	4	2	0	1	4	1	0	0	0	1	0	1	0.00	0.82	0.00	1.41
	Ham Lane	Church Lane	0	2	0	0	0	1	0	0	0	1	0	0	0.00	0.82	0.00	0.00
	Ham Lane	A37 North	1	0	1	0	1	0	0	0	0	0	1	0	0.00	0.00	1.41	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	209	52	19	42	199	51	18	40	10	1	1	2	0.70	0.14	0.23	0.31
	A37 North	A362	169	38	10	5	173	36	6	6	-4	2	4	-1	0.31	0.33	1.41	0.43
	A362	A37 North	147	28	13	3	146	29	12	3	1	-1	1	0	0.08	0.19	0.28	0.00
	A362	A37 South	70	13	1	7	69	13	1	6	1	0	0	1	0.12	0.00	0.00	0.39
	A37 South	A362	89	22	1	5	92	22	1	6	-3	0	0	-1	0.32	0.00	0.00	0.43
	A37 South	A37 North	244	62	27	39	246	64	28	41	-2	-2	-1	-2	0.13	0.25	0.19	0.32

Flow calibration results 14:00 – 15:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	323	67	20	26	326	67	19	27	-3	0	1	-1	0.17	0.00	0.23	0.19
	A37 North	Temple Inn Lane	29	7	0	0	28	7	0	0	1	0	0	0	0.19	0.00	0.00	0.00
	Temple Inn Lane	A37 North	18	4	3	0	17	4	3	0	1	0	0	0	0.24	0.00	0.00	0.00
	Temple Inn Lane	A37 South	32	11	2	0	33	10	1	1	-1	1	1	-1	0.18	0.31	0.82	1.41
	A37 South	Temple Inn Lane	36	9	4	0	35	11	2	0	1	-2	2	0	0.17	0.63	1.15	0.00
	A37 South	A37 North	324	89	24	24	313	91	23	23	11	-2	1	1	0.62	0.21	0.21	0.21
A37 / Cameley Road	A37 North	Cameley Road	1	3	0	0	1	2	0	0	0	1	0	0	0.00	0.63	0.00	0.00
	A37 North	A37 South	357	75	22	26	360	77	21	27	-3	-2	1	-1	0.16	0.23	0.22	0.19
	A37 South	A37 North	346	93	27	25	337	96	26	24	9	-3	1	1	0.49	0.31	0.19	0.20
	A37 South	Cameley Road	22	5	3	0	20	6	0	0	2	-1	3	0	0.44	0.43	2.45	0.00
	Cameley Road	A37 South	22	5	0	0	19	3	0	0	3	2	0	0	0.66	1.00	0.00	0.00
	Cameley Road	A37 North	10	4	0	0	12	4	0	0	-2	0	0	0	0.60	0.00	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	2	0	0	0	2	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 North	A37 South	303	60	21	26	305	63	20	28	-2	-3	1	-2	0.11	0.38	0.22	0.38
	A37 North	A39 Wells Road	68	19	1	0	66	18	1	1	2	1	0	-1	0.24	0.23	0.00	1.41
	A39 Wells Road	A37 North	62	23	3	1	61	24	2	0	1	-1	1	1	0.13	0.21	0.63	1.41
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	1	0	0	0	-1	0.00	0.00	0.00	1.41
	A39 Wells Road	A37 South	123	33	11	13	146	32	12	14	-23	1	-1	-1	1.98	0.18	0.29	0.27
	A37 South	A39 Wells Road	102	33	16	10	100	32	15	11	2	1	1	-1	0.20	0.18	0.25	0.31
	A37 South	A37 North	307	69	26	23	306	75	27	23	1	-6	-1	0	0.06	0.71	0.19	0.00
	A37 South	Green Lane	0	0	0	0	1	0	0	0	-1	0	0	0	1.41	0.00	0.00	0.00
	Green Lane	A37 South	2	0	0	0	3	0	0	0	-1	0	0	0	0.63	0.00	0.00	0.00
	Green Lane	A39 Wells Road	2	0	0	1	2	0	0	0	0	0	0	1	0.00	0.00	0.00	1.41
	Green Lane	A37 North	4	2	0	1	3	0	0	0	1	2	0	1	0.53	2.00	0.00	1.41
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	6	0	0	0	2	0	0	0	4	0	0	0	2.00	0.00	0.00	0.00
	A37 North	A37 South	406	94	32	42	432	92	32	44	-26	2	0	-2	1.27	0.21	0.00	0.30
	A37 North	Church Lane	10	0	0	0	8	0	0	0	2	0	0	0	0.67	0.00	0.00	0.00
	Church Lane	A37 North	2	1	0	0	2	0	0	0	0	1	0	0	0.00	1.41	0.00	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	4	1	1	0	4	1	0	0	0	0	1	0	0.00	0.00	1.41	0.00
	A37 South	Church Lane	2	0	0	0	2	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	A37 North	402	101	42	33	401	104	45	33	1	-3	-3	0	0.05	0.30	0.45	0.00
	A37 South	Ham Lane	5	0	0	0	5	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 South	1	0	0	0	2	0	0	0	-1	0	0	0	0.82	0.00	0.00	0.00
	Ham Lane	Church Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	4	0	0	0	3	0	0	0	1	0	0	0	0.53	0.00	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	227	59	27	33	239	59	31	33	-12	0	-4	0	0.79	0.00	0.74	0.00
	A37 North	A362	179	36	5	9	183	34	7	9	-4	2	-2	0	0.30	0.34	0.82	0.00
	A362	A37 North	163	33	7	0	164	32	9	1	-1	1	-2	-1	0.08	0.18	0.71	1.41
	A362	A37 South	105	18	2	7	107	18	2	7	-2	0	0	0	0.19	0.00	0.00	0.00
	A37 South	A362	115	27	1	6	118	26	2	5	-3	1	-1	1	0.28	0.19	0.82	0.43
	A37 South	A37 North	247	71	35	32	248	70	35	31	-1	1	0	1	0.06	0.12	0.00	0.18

Flow calibration results 15:00 – 16:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	350	72	12	20	349	65	12	23	1	7	0	-3	0.05	0.85	0.00	0.65
	A37 North	Temple Inn Lane	46	8	2	0	46	8	1	0	0	0	1	0	0.00	0.00	0.82	0.00
	Temple Inn Lane	A37 North	46	6	0	0	48	5	0	0	-2	1	0	0	0.29	0.43	0.00	0.00
	Temple Inn Lane	A37 South	55	10	2	0	50	8	1	0	5	2	1	0	0.69	0.67	0.82	0.00
	A37 South	Temple Inn Lane	50	13	0	0	52	12	1	0	-2	1	-1	0	0.28	0.28	1.41	0.00
	A37 South	A37 North	305	114	34	29	296	117	34	30	9	-3	0	-1	0.52	0.28	0.00	0.18
A37 / Cameley Road	A37 North	Cameley Road	3	0	0	0	3	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 North	A37 South	400	81	14	20	385	80	13	23	15	1	1	-3	0.76	0.11	0.27	0.65
	A37 South	A37 North	340	120	35	28	337	122	35	28	3	-2	0	0	0.16	0.18	0.00	0.00
	A37 South	Cameley Road	14	4	1	0	17	2	0	0	-3	2	1	0	0.76	1.15	1.41	0.00
	Cameley Road	A37 South	18	1	0	0	16	2	0	0	2	-1	0	0	0.49	0.82	0.00	0.00
	Cameley Road	A37 North	17	9	0	0	16	7	0	0	1	2	0	0	0.25	0.71	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	0	0	0	1	1	0	0	0	-1	0	0	1	1.41	0.00	0.00	1.41
	A37 North	A37 South	338	62	14	19	331	63	9	22	7	-1	5	-3	0.38	0.13	1.47	0.66
	A37 North	A39 Wells Road	74	22	0	0	76	21	1	0	-2	1	-1	0	0.23	0.22	1.41	0.00
	A39 Wells Road	A37 North	55	18	4	0	54	18	4	0	1	0	0	0	0.14	0.00	0.00	0.00
	A39 Wells Road	Green Lane	2	0	0	0	1	0	0	0	1	0	0	0	0.82	0.00	0.00	0.00
	A39 Wells Road	A37 South	114	30	13	7	112	36	11	6	2	-6	2	1	0.19	1.04	0.58	0.39
	A37 South	A39 Wells Road	115	34	6	6	123	36	5	5	-8	-2	1	1	0.73	0.34	0.43	0.43
	A37 South	A37 North	296	108	33	28	304	104	31	29	-8	4	2	-1	0.46	0.39	0.35	0.19
	A37 South	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 South	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A39 Wells Road	2	0	0	0	2	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 North	2	0	0	1	2	0	0	1	0	0	0	0	0.00	0.00	0.00	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	0	1	0	3	1	1	0	0	-1	0	0	3	1.41	0.00	0.00	2.45
	A37 North	A37 South	432	89	27	22	431	95	24	26	1	-6	3	-4	0.05	0.63	0.59	0.82
	A37 North	Church Lane	18	3	0	0	16	1	0	0	2	2	0	0	0.49	1.41	0.00	0.00
	Church Lane	A37 North	2	0	5	0	3	0	0	0	-1	0	5	0	0.63	0.00	3.16	0.00
	Church Lane	Ham Lane	2	0	0	0	1	0	0	0	1	0	0	0	0.82	0.00	0.00	0.00
	Church Lane	A37 South	10	1	0	0	10	1	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	Church Lane	7	1	0	0	7	2	0	0	0	-1	0	0	0.00	0.82	0.00	0.00
	A37 South	A37 North	405	144	29	33	403	148	32	35	2	-4	-3	-2	0.10	0.33	0.54	0.34
	A37 South	Ham Lane	3	1	0	0	4	1	0	0	-1	0	0	0	0.53	0.00	0.00	0.00
	Ham Lane	A37 South	0	0	0	0	3	1	0	0	-3	-1	0	0	2.45	1.41	0.00	0.00
	Ham Lane	Church Lane	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	6	0	5	0	4	1	0	0	2	-1	5	0	0.89	1.41	3.16	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	272	53	19	22	277	53	18	23	-5	0	1	-1	0.30	0.00	0.23	0.21
	A37 North	A362	175	37	9	0	170	37	7	2	5	0	2	-2	0.38	0.00	0.71	2.00
	A362	A37 North	179	50	9	9	180	53	8	7	-1	-3	1	2	0.07	0.42	0.34	0.71
	A362	A37 South	81	19	4	4	82	20	4	4	-1	-1	0	0	0.11	0.23	0.00	0.00
	A37 South	A362	108	20	3	4	104	21	4	4	4	-1	-1	0	0.39	0.22	0.53	0.00
	A37 South	A37 North	243	98	20	26	245	96	21	26	-2	2	-1	0	0.13	0.20	0.22	0.00

Flow calibration results 16:00 – 17:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	434	105	7	20	451	109	9	19	-17	-4	-2	1	0.81	0.39	0.71	0.23
	A37 North	Temple Inn Lane	34	5	0	0	35	6	0	0	-1	-1	0	0	0.17	0.43	0.00	0.00
	Temple Inn Lane	A37 North	24	5	2	0	22	6	1	0	2	-1	1	0	0.42	0.43	0.82	0.00
	Temple Inn Lane	A37 South	46	10	1	0	49	14	1	0	-3	-4	0	0	0.44	1.15	0.00	0.00
	A37 South	Temple Inn Lane	51	10	1	0	52	12	2	0	-1	-2	-1	0	0.14	0.60	0.82	0.00
	A37 South	A37 North	397	111	22	18	390	108	25	20	7	3	-3	-2	0.35	0.29	0.62	0.46
A37 / Cameley Road	A37 North	Cameley Road	1	1	0	0	2	1	0	0	-1	0	0	0	0.82	0.00	0.00	0.00
	A37 North	A37 South	480	116	8	20	488	121	10	19	-8	-5	-2	1	0.36	0.46	0.67	0.23
	A37 South	A37 North	433	121	23	17	427	122	25	19	6	-1	-2	-2	0.29	0.09	0.41	0.47
	A37 South	Cameley Road	16	3	0	0	15	3	0	0	1	0	0	0	0.25	0.00	0.00	0.00
	Cameley Road	A37 South	14	5	0	0	13	4	0	0	1	1	0	0	0.27	0.47	0.00	0.00
	Cameley Road	A37 North	16	0	0	1	15	0	0	0	1	0	0	1	0.25	0.00	0.00	1.41
A37 / A39 Wells Road	A37 North	Green Lane	0	9	0	0	0	0	0	0	0	9	0	0	0.00	4.24	0.00	0.00
	A37 North	A37 South	410	92	8	21	417	90	10	19	-7	2	-2	2	0.34	0.21	0.67	0.45
	A37 North	A39 Wells Road	87	19	0	0	85	19	0	0	2	0	0	0	0.22	0.00	0.00	0.00
	A39 Wells Road	A37 North	72	16	2	1	75	16	3	1	-3	0	-1	0	0.35	0.00	0.63	0.00
	A39 Wells Road	Green Lane	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	181	45	6	8	181	46	6	7	0	-1	0	1	0.00	0.15	0.00	0.37
	A37 South	A39 Wells Road	138	47	5	7	129	41	2	6	9	6	3	1	0.78	0.90	1.60	0.39
	A37 South	A37 North	375	110	21	17	367	103	22	15	8	7	-1	2	0.42	0.68	0.22	0.50
	A37 South	Green Lane	0	0	3	0	1	0	0	0	-1	0	3	0	1.41	0.00	2.45	0.00
	Green Lane	A37 South	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A39 Wells Road	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 North	0	1	0	0	0	1	0	0	0	0	0	0	0.00	0.00	0.00	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	2	4	0	0	3	2	0	0	-1	2	0	0	0.63	1.15	0.00	0.00
	A37 North	A37 South	579	127	14	30	589	134	15	27	-10	-7	-1	3	0.41	0.61	0.26	0.56
	A37 North	Church Lane	3	2	1	0	4	2	0	0	-1	0	1	0	0.53	0.00	1.41	0.00
	Church Lane	A37 North	3	0	0	0	3	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	2	0	0	0	2	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	Church Lane	3	1	0	0	3	0	0	0	0	1	0	0	0.00	1.41	0.00	0.00
	A37 South	A37 North	516	154	28	25	497	152	26	24	19	2	2	1	0.84	0.16	0.38	0.20
	A37 South	Ham Lane	3	1	0	0	3	1	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 South	4	4	0	0	2	2	0	0	2	2	0	0	1.15	1.15	0.00	0.00
	Ham Lane	Church Lane	2	0	0	0	1	0	0	0	1	0	0	0	0.82	0.00	0.00	0.00
	Ham Lane	A37 North	0	1	0	0	1	1	0	0	-1	0	0	0	1.41	0.00	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	352	77	9	29	359	78	12	27	-7	-1	-3	2	0.37	0.11	0.93	0.38
	A37 North	A362	224	54	4	0	232	59	2	0	-8	-5	2	0	0.53	0.67	1.15	0.00
	A362	A37 North	207	47	10	0	205	45	9	2	2	2	1	-2	0.14	0.29	0.32	2.00
	A362	A37 South	91	17	2	2	91	17	2	2	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	A362	121	36	1	4	127	35	1	3	-6	1	0	1	0.54	0.17	0.00	0.53
	A37 South	A37 North	313	104	19	23	313	106	19	21	0	-2	0	2	0.00	0.20	0.00	0.43

Flow calibration results 17:00 – 18:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	550	78	4	11	567	83	6	12	-17	-5	-2	-1	0.72	0.56	0.89	0.29
	A37 North	Temple Inn Lane	57	6	0	0	56	7	0	0	1	-1	0	0	0.13	0.39	0.00	0.00
	Temple Inn Lane	A37 North	26	4	0	0	26	3	0	0	0	1	0	0	0.00	0.53	0.00	0.00
	Temple Inn Lane	A37 South	40	8	0	1	41	8	0	1	-1	0	0	0	0.16	0.00	0.00	0.00
	A37 South	Temple Inn Lane	54	8	0	0	51	8	0	0	3	0	0	0	0.41	0.00	0.00	0.00
	A37 South	A37 North	471	97	14	18	483	98	14	16	-12	-1	0	2	0.55	0.10	0.00	0.49
A37 / Cameley Road	A37 North	Cameley Road	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 North	A37 South	587	86	4	12	613	88	6	13	-26	-2	-2	-1	1.06	0.21	0.89	0.28
	A37 South	A37 North	518	103	13	18	535	103	14	16	-17	0	-1	2	0.74	0.00	0.27	0.49
	A37 South	Cameley Road	22	4	1	1	22	4	0	0	0	0	1	1	0.00	0.00	1.41	1.41
	Cameley Road	A37 South	12	2	0	0	12	1	0	0	0	1	0	0	0.00	0.82	0.00	0.00
	Cameley Road	A37 North	6	0	0	0	8	2	0	0	-2	-2	0	0	0.76	2.00	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	3	1	0	0	1	0	0	0	2	1	0	0	1.41	1.41	0.00	0.00
	A37 North	A37 South	482	68	3	12	499	65	6	13	-17	3	-3	-1	0.77	0.37	1.41	0.28
	A37 North	A39 Wells Road	114	20	1	0	118	21	1	0	-4	-1	0	0	0.37	0.22	0.00	0.00
	A39 Wells Road	A37 North	74	12	0	0	75	11	0	0	-1	1	0	0	0.12	0.29	0.00	0.00
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	190	30	1	0	194	28	2	0	-4	2	-1	0	0.29	0.37	0.82	0.00
	A37 South	A39 Wells Road	145	17	4	0	141	20	4	1	4	-3	0	-1	0.33	0.70	0.00	1.41
	A37 South	A37 North	471	92	13	17	455	99	14	17	16	-7	-1	0	0.74	0.72	0.27	0.00
	A37 South	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 South	1	0	0	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A39 Wells Road	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 North	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	1	0	0	0	2	1	0	0	-1	-1	0	0	0.82	1.41	0.00	0.00
	A37 North	A37 South	666	98	3	12	673	95	6	14	-7	3	-3	-2	0.27	0.31	1.41	0.55
	A37 North	Church Lane	13	2	0	0	13	2	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 North	3	1	0	0	3	1	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A37 South	Church Lane	3	0	0	1	3	0	0	0	0	0	0	1	0.00	0.00	0.00	1.41
	A37 South	A37 North	592	105	17	16	601	107	16	17	-9	-2	1	-1	0.37	0.19	0.25	0.25
	A37 South	Ham Lane	4	0	0	0	5	2	0	0	-1	-2	0	0	0.47	2.00	0.00	0.00
	Ham Lane	A37 South	0	0	0	0	1	2	0	0	-1	-2	0	0	1.41	2.00	0.00	0.00
	Ham Lane	Church Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Ham Lane	A37 North	5	1	0	0	4	3	0	0	1	-2	0	0	0.47	1.41	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	414	61	3	12	408	60	5	12	6	1	-2	0	0.30	0.13	1.00	0.00
	A37 North	A362	257	37	1	1	250	33	2	1	7	4	-1	0	0.44	0.68	0.82	0.00
	A362	A37 North	231	25	5	0	232	28	4	0	-1	-3	1	0	0.07	0.58	0.47	0.00
	A362	A37 South	135	17	1	1	136	16	2	1	-1	1	-1	0	0.09	0.25	0.82	0.00
	A37 South	A362	156	31	1	2	161	32	1	2	-5	-1	0	0	0.40	0.18	0.00	0.00
	A37 South	A37 North	381	81	12	18	385	85	13	19	-4	-4	-1	-1	0.20	0.44	0.28	0.23

Flow calibration results 18:00 – 19:00

Junction	From	To	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2	CAR	LGV	OGV1	OGV2
A37 / Temple Inn Lane	A37 North	A37 South	474	37	8	4	454	34	3	4	20	3	5	0	0.93	0.50	2.13	0.00
	A37 North	Temple Inn Lane	45	5	0	0	45	5	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Temple Inn Lane	A37 North	20	4	1	0	19	5	0	0	1	-1	1	0	0.23	0.47	1.41	0.00
	Temple Inn Lane	A37 South	17	5	0	1	17	6	0	0	0	-1	0	1	0.00	0.43	0.00	1.41
	A37 South	Temple Inn Lane	38	8	2	0	41	9	1	0	-3	-1	1	0	0.48	0.34	0.82	0.00
	A37 South	A37 North	374	46	6	10	361	47	5	14	13	-1	1	-4	0.68	0.15	0.43	1.15
A37 / Cameley Road	A37 North	Cameley Road	1	0	0	0	2	0	0	0	-1	0	0	0	0.82	0.00	0.00	0.00
	A37 North	A37 South	493	40	8	5	470	39	3	4	23	1	5	1	1.05	0.16	2.13	0.47
	A37 South	A37 North	397	54	8	10	390	56	6	13	7	-2	2	-3	0.35	0.27	0.76	0.88
	A37 South	Cameley Road	15	1	0	0	17	1	0	0	-2	0	0	0	0.50	0.00	0.00	0.00
	Cameley Road	A37 South	19	3	0	2	18	2	1	0	1	1	-1	2	0.23	0.63	1.41	2.00
	Cameley Road	A37 North	12	0	0	0	13	0	0	0	-1	0	0	0	0.28	0.00	0.00	0.00
A37 / A39 Wells Road	A37 North	Green Lane	3	0	0	0	3	0	0	1	0	0	0	-1	0.00	0.00	0.00	1.41
	A37 North	A37 South	429	35	7	7	410	35	4	4	19	0	3	3	0.93	0.00	1.28	1.28
	A37 North	A39 Wells Road	81	6	1	0	78	6	0	0	3	0	1	0	0.34	0.00	1.41	0.00
	A39 Wells Road	A37 North	51	2	1	1	50	2	1	0	1	0	0	1	0.14	0.00	0.00	1.41
	A39 Wells Road	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	A39 Wells Road	A37 South	151	20	3	1	146	19	3	1	5	1	0	0	0.41	0.23	0.00	0.00
	A37 South	A39 Wells Road	128	17	2	0	126	18	1	0	2	-1	1	0	0.18	0.24	0.82	0.00
	A37 South	A37 North	351	50	5	10	352	51	4	13	-1	-1	1	-3	0.05	0.14	0.47	0.88
	A37 South	Green Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 South	0	1	0	0	1	1	0	0	-1	0	0	0	1.41	0.00	0.00	0.00
	Green Lane	A39 Wells Road	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Green Lane	A37 North	2	1	2	0	1	0	0	0	1	1	2	0	0.82	1.41	2.00	0.00
A37 / Chruch Lane / Ham Lane	A37 North	Ham Lane	3	0	1	0	1	0	0	0	2	0	1	0	1.41	0.00	1.41	0.00
	A37 North	A37 South	578	56	8	8	567	54	5	5	11	2	3	3	0.46	0.27	1.18	1.18
	A37 North	Church Lane	6	2	1	0	6	1	0	0	0	1	1	0	0.00	0.82	1.41	0.00
	Church Lane	A37 North	3	0	1	0	3	1	0	0	0	-1	1	0	0.00	1.41	1.41	0.00
	Church Lane	Ham Lane	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
	Church Lane	A37 South	4	1	0	0	4	0	0	0	0	1	0	0	0.00	1.41	0.00	0.00
	A37 South	Church Lane	1	3	0	0	1	1	0	0	0	2	0	0	0.00	1.41	0.00	0.00
	A37 South	A37 North	480	69	6	12	468	61	4	12	12	8	2	0	0.55	0.99	0.89	0.00
	A37 South	Ham Lane	6	0	0	1	5	0	0	0	1	0	0	1	0.43	0.00	0.00	1.41
	Ham Lane	A37 South	2	0	0	0	4	1	0	0	-2	-1	0	0	1.15	1.41	0.00	0.00
	Ham Lane	Church Lane	2	0	0	0	1	0	0	0	1	0	0	0	0.82	0.00	0.00	0.00
	Ham Lane	A37 North	0	0	0	0	2	1	0	0	-2	-1	0	0	2.00	1.41	0.00	0.00
A37 / A362 Farrington Gurney Bypass	A37 North	A37 South	358	39	5	8	350	41	4	5	8	-2	1	3	0.43	0.32	0.47	1.18
	A37 North	A362	224	18	3	0	229	20	2	0	-5	-2	1	0	0.33	0.46	0.63	0.00
	A362	A37 North	169	13	0	2	173	14	0	2	-4	-1	0	0	0.31	0.27	0.00	0.00
	A362	A37 South	104	5	0	0	107	6	0	0	-3	-1	0	0	0.29	0.43	0.00	0.00
	A37 South	A362	107	17	2	0	106	18	1	0	1	-1	1	0	0.10	0.24	0.82	0.00
	A37 South	A37 North	300	58	5	10	299	54	4	10	1	4	1	0	0.06	0.53	0.47	0.00