



Crouch End Trial (7th – 20th October 2019)

Traffic Analysis Report

London Borough of Haringey

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Created by

Lidia Pavon Gomez

Lidia.Pavon@projectcentre.co.uk

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1000005536	01	Traffic analysis report	Lidia Pavon 10.12.19	Jereme McKasKill 13.12.19	Scott Lester 13.12.19

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1. BACKGROUND

Haringey Council was awarded £4.8 million of funding by Transport for London to carry out a Liveable Neighbourhoods scheme in the Crouch End area. The scheme aims to encourage more:

- Walking
- Cycling
- Public transport

This can be achieved by improving the look and feel of the area and providing better and safer infrastructure. All these interventions will in turn improve air quality.

A series of road closures were trialled from 7th – 20th October as part of the Liveable Crouch End project to provide an opportunity to:

- Understand the overall impact of low traffic area which makes it easier to walk and cycle to school, work and the town centre
- See the potential of two public spaces in the town centre
- Learn what impact these changes might have to traffic movement

The changes to the roads in the Crouch End area were:

- A bus/cycle only gate on Middle Lane, at its northern end with Priory Road / Hornsey High Street – this was in operation between 7am and 7pm
- Hillfield Ave closed at its junction with High Street - operating 24 hours a day
- Birkbeck Road just south of St Mary's Road closed 24 hours a day
- Weston Park closed where it meets the Broadway operating 24 hours a day
- Middle Lane closed and with a public area at its southern end, near Park Road, operating 24 hours a day.

The trial sought to address a series of questions:

- Is there a reduction in traffic on Middle Lane as a result of the closures?
- Is there a reduction in traffic volumes on Ferme Park Road as a result of the closures?
- Is there an increase in traffic on Park Road and Tottenham Lane as a result of the closure?
- Does the increase in traffic on the two A roads equate to the traffic previously counted on Middle Lane, or has there been displacement (vehicles using different routes) and evaporation (different modes of travel chosen) of some vehicles?
- Is there an improvement to the W3 bus which uses Middle Lane?

- Is there a change in journey times for any buses using Park Road and Tottenham Lane?
- What has worked well with the trial?
- What hasn't worked?
- What needs to be implemented or changed to make any permanent intervention a success?

2. INTRODUCTION

London Borough of Haringey commissioned Project Centre to undertake the analysis of the trial to understand the benefits and impacts more clearly.

This report does not focus on what should be delivered as part of a future Liveable Neighbourhood project, it covers the analysis of the trial and if Haringey Council, following extensive public engagement and consultation, decides to progress certain elements of the trial, then this report identifies improvements which should be included to improve success.

This report covers the analysis of the data gathered during the trial together with site observations. The topics covered in this report are:

- SITE OBSERVATIONS – FIRST DAYS
- SITE OBSERVATIONS – SECOND WEEK
- VEHICLE VOLUME ANALYSIS
- SPEED ANALYSIS
- BUS JOURNEY TIMES
- RECOMMENDATIONS

3. SITE OBSERVATIONS – FIRST DAYS

It was always anticipated that there would be a period of adjustment as drivers got used to the new temporary arrangement resulting from the closures. Satellite navigation companies were contacted prior to the trial commencing, advance warning signs were at each closure one week before the trial started and over 15,000 leaflets were delivered to the properties within Crouch End area ahead of the trial and again during the trial.

Some of the observations during the first days were:

- There were significant negative impacts from emergency utility works along Tottenham Lane during the first two days of the trial. Once the works finished, the traffic conditions improved considerably.
- Bus route 41 was diverted on the first day of the trial to use southern end of Middle Lane, which was closed to all traffic. This bus route 41 was diverted via Elder Avenue (very narrow 2 ways road) to get back to Tottenham Lane. This diversion was related purely to the emergency works along Tottenham Lane.
- Drivers getting to the closure point and having to turn around, regardless of having advanced warning signs displaying 'ROAD AHEAD CLOSED' at the last turning opportunity.
- The first day of the trial not all the GPS companies had their maps updated, this led to drivers being directed to the closure point and not being able to navigate their way through the area. After the second day all the traffic restrictions were shown on all devices.

Project Centre and Haringey Council staff were on site throughout the trial to answer any questions residents had and to provide directions if required.

By early on the third day of the trial the emergency works had been completed and the GPS companies had updated their maps to reflect the trial. Therefore, conditions during the rest of the first week returned to reasonable levels.

4. SITE OBSERVATIONS – SECOND WEEK

Crouch End trial lasted two weeks. The second week of the trial is considered to give more accurate information regarding traffic volumes and displacements. The longer a traffic restriction is in place, the more likely it is to produce behaviour change resulting in traffic evaporation and increase of walking and cycling.

The traffic conditions improved significantly over the second week of the trial and the issues described at the beginning of the first week were no longer experienced.

Project Centre and Haringey Council staff visited key locations during the second week of the trial to get an idea of potential benefits and impacts the trial could be leading to.

Observations included:

- Schools in the area during pick up/drop off times
- Key roads during the morning peak, inter-peak and evening peak.
- Traffic signalised junction performances during peak times.
- Parking stress observations

Based on those observations it was noted

- Traffic conditions along main roads in the morning peak did not appear to be impacted by the closure. Some roads are busy and further interventions could mitigate this, but this appeared to be the usual situation.
- For the streets near Rokesly Junior and Infant Schools, the number of motor vehicles on Rokesly Ave, Hermiston Ave and Elmfield Ave was low.
- There was parking available on side roads leading to Park Road that could facilitate the removal of spaces from Park Road in order to improve conditions on Park Road.
- Park Avenue South and Farrer Road being used as a cut through to avoid Park Road / Priory Road signalised junction, on Farrer Road this seemed a pre-existing situation. The increase in traffic as a result of the trial, whilst not as high as anticipated is not considered acceptable for the residents living on those roads. Additional measures to be sought to bring the volume of traffic down.
- Traffic signalised junctions throughout the day operated within their capacity with isolated times where motor vehicles could not clear the junction in a single cycle.
- Very low volume of traffic reaching the Middle Lane gate (either sides) on the last days of the trial

Table 1. Traffic conditions on relevant roads. Table 1 summarises the traffic observations on the most notable roads during the trial period.

Mitigation measures as identified in section 8 were developed based on these site observations and from residents and businesses experiences of the trial.

Table 1. Traffic conditions on relevant roads.

	Not congested	Busy but not congested	Congested but traffic flowing
Road name	Morning peak	Inter - peak	Evening peak
Tottenham Lane			
Priory Road			
Park Road			
The Broadway			
Middle Lane			
Park Avenue South			
Farrer Road			

4.1 Conclusions.

Based on the site observations during the second week, the following conclusions have been drawn:

CONCLUSIONS

Some improvements (covered in the RECOMMENDATIONS section) should be considered if a scheme similar to the trial is proposed to be implemented on a permanent basis.

5. VEHICLE VOLUME ANALYSIS

Traffic data was gathered before the trial and during the second week of the trial to compare the volume of traffic at 17 different locations (see Figure 1) across Crouch End and understand the changes that occurred during the trial.

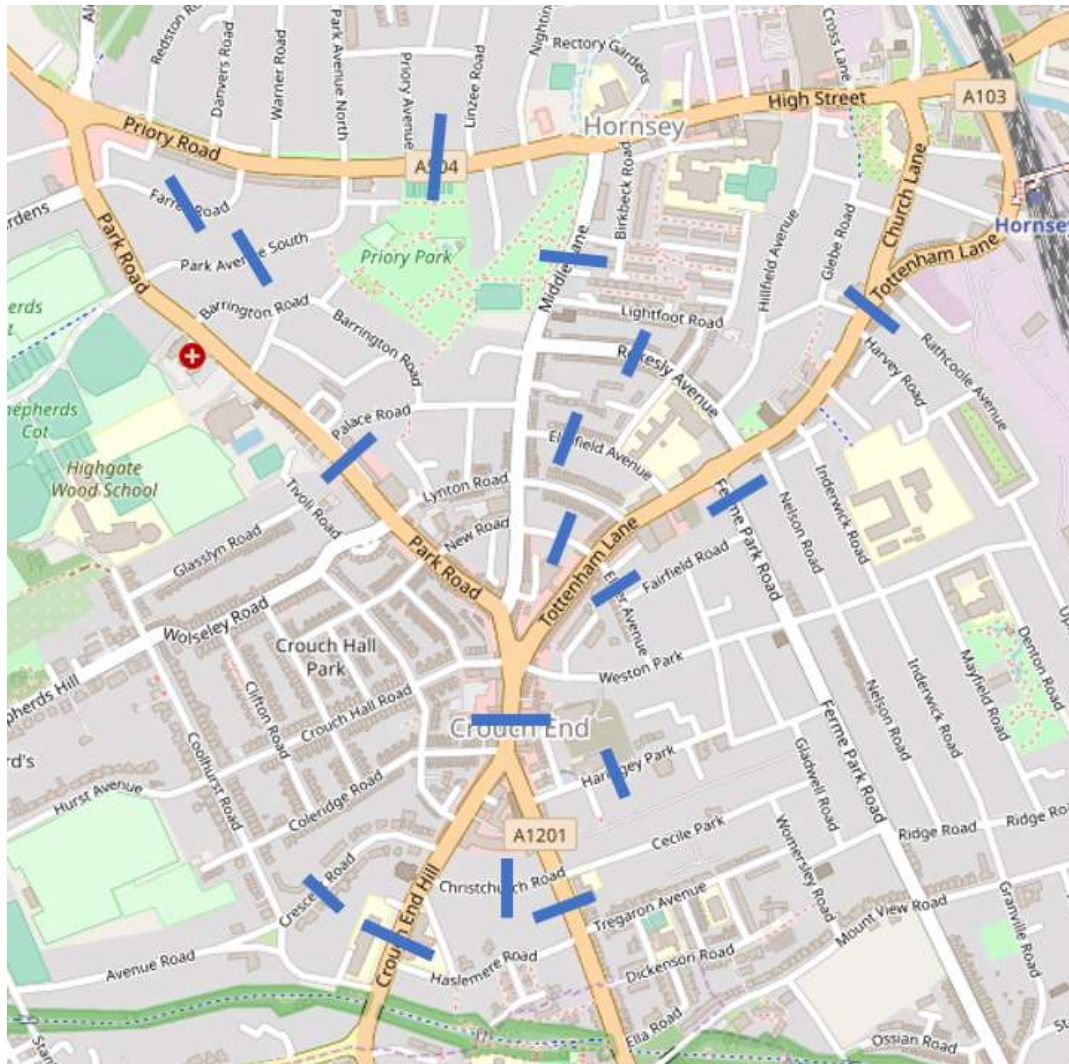


Figure 1. Automatic Traffic Counts locations

Appendix A shows a map with the 24h volume of traffic during weekdays before and during the trial.

Appendix B shows a map with the volume of traffic during weekdays during the hours of operation of the bus gate (7am - 7pm) before and during the trial.

Appendix C shows a graph for each location showing the volume of traffic hour by hour during weekdays before and during the trial. These graphs also include the speed of the traffic.

The volume of traffic has also been analysed as weekday average volume during 24h, 7am-7pm and hour by hour basis.

5.1 Middle Lane

The volume of traffic using Middle Lane decreased not only during the hours of operation of the bus gate, but also outside those hours, detailed volumes per hour can be found in Table 2.

It should be noted that during the hours of operation of the gates, 1,752 vehicles (on average during the second week) accessed Middle Lane. This volume of traffic should only have included:

- Emergency vehicles – assumed a maximum of 24 vehicles each day, one emergency vehicle every half an hour.
- Buses/coaches – W3 is the only bus route passing Middle Lane – from 7am to 7pm. According with the schedule provided by TfL website, W3 should pass every 4-8minutes, this mean a maximum of 360 buses during the 12h period when the bus gate is closed to all general traffic
- Residents – remaining traffic – in normal conditions all remaining traffic passing Middle Lane would be residents or delivery companies parking nearby. The remaining volume (1,368 vehicles) is far higher than what would be expected. It is considered most of this traffic was still reaching Middle Lane trying to get through. The implementation of a bus gate on a permanent basis would decrease the volume of traffic on Middle Lane further, by approximately 1000 vehicles between 7am and 7pm.

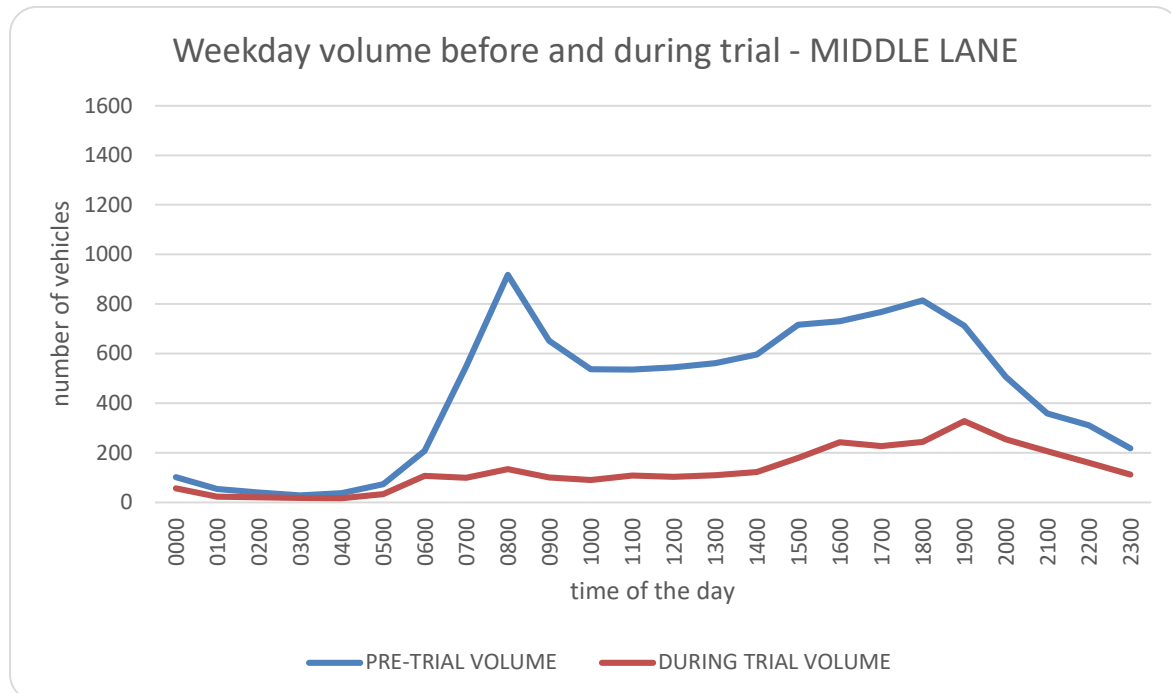


Figure 2. Volume of traffic Middle Lane

5.2 Park Road

The data available during the trial along Park Road is limited to one full weekday due to the loops being parked on. The data aimed to get five weekdays in order to reduce potential fluctuations across the week, however the data gathered during the one full day gives us an indication of what took place on Park Road. Figure 3 shows very similar volume before and during the trial, further analysis that compare the individual weekday before and during the trial showed a greater reduction of traffic during the trial. However, given the limited data it is appropriate to conclude that there is no indication that traffic on Park Road increased during the trial.

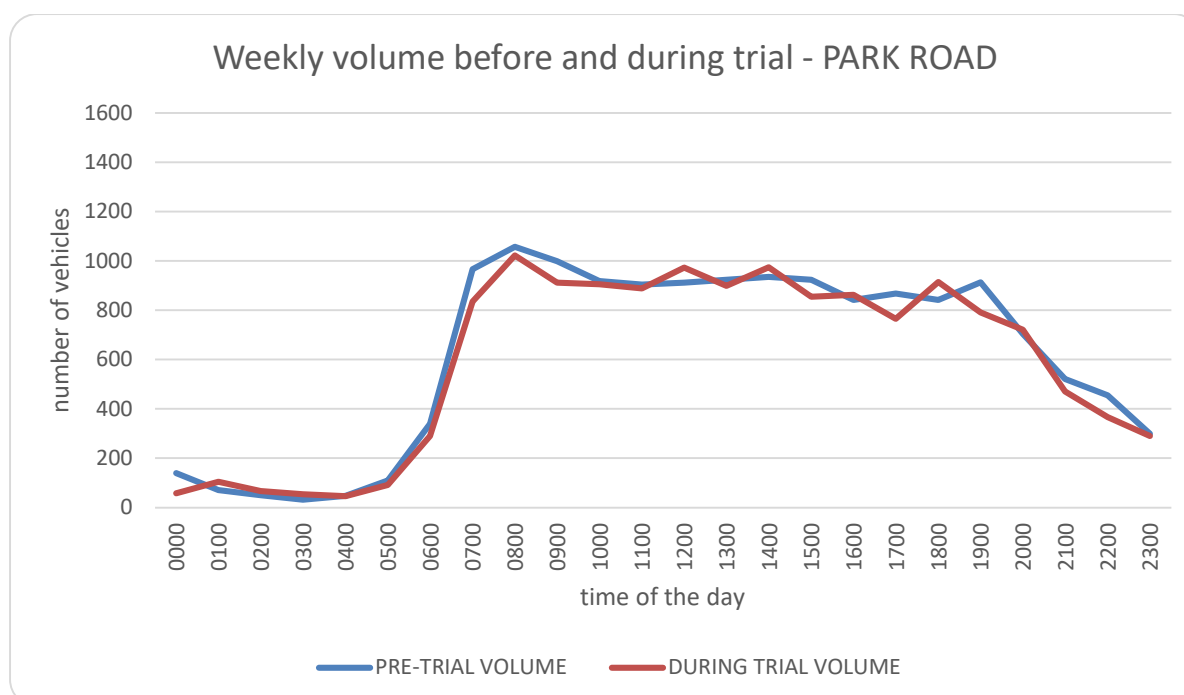


Figure 3. Volume of traffic Park Road

5.3 Tottenham Lane

The volume of traffic using Tottenham Lane, as expected, has increased. Some of the traffic previously used Middle Lane has taken Tottenham Lane instead. Figure 4 shows the volume of traffic.

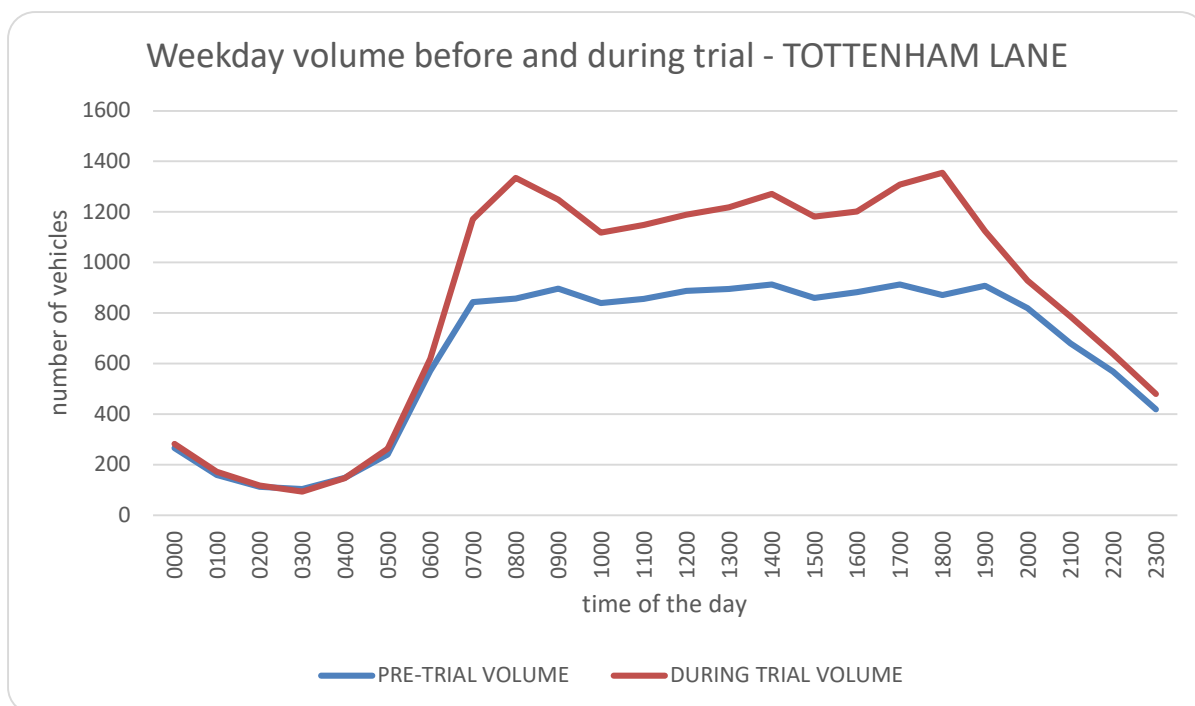


Figure 4. Volume of traffic Tottenham Lane

5.4 Park Road + Middle Lane + Tottenham Lane

The table below compares the volume of traffic before and during the trial for the roads giving access to Crouch End, considering 24h volume data and during the hours of operation of the bus gate (7am-7pm).

Table 2. 24h volume of traffic during weekdays on roads giving access to Crouch End

Lower volume		Similar volume		Higher volume	
Road name	24h volume before trial	24h volume during trial	24h volume difference		
Middle Lane + Park Road + Tottenham Lane	40832	37634	-3198		
Park Road	14767	14148	-619		
Tottenham Lane	15503	20404	4901		
Middle Lane	10562	3082	-7480		

Table 3. 7am-7pm volume of traffic during weekdays on roads giving access to Crouch End

Lower volume		Similar volume	Higher volume
Road name	7am-7pm volume before trial	7am-7pm volume during trial	7am-7pm volume difference
Middle Lane + Park Road + Tottenham Lane	29518	27310	-2208
Park Road	11089	10803	-286
Tottenham Lane	10511	14755	4242
Middle Lane	7918	1752	-6166

Combining volume of traffic on the main roads helps to analyse the overall impact. The graph below (Figure 5) shows the combined volume of traffic using all three main roads (Park Road, Tottenham Lane and Middle Lane). The total volume of traffic decreased by over 2000 vehicles during the hours of operation of the bus gate. Additionally, it is likely that a further 1000 vehicles would not use Middle Lane under a permanent scheme.

The graph below shows that even during peak hours the volume of overall traffic decreased during the trial which reflects the concept that reducing carriageway capacity for general traffic results in fewer vehicles using the area. It should be noted that traffic may have dispersed or chosen alternative transport methods.

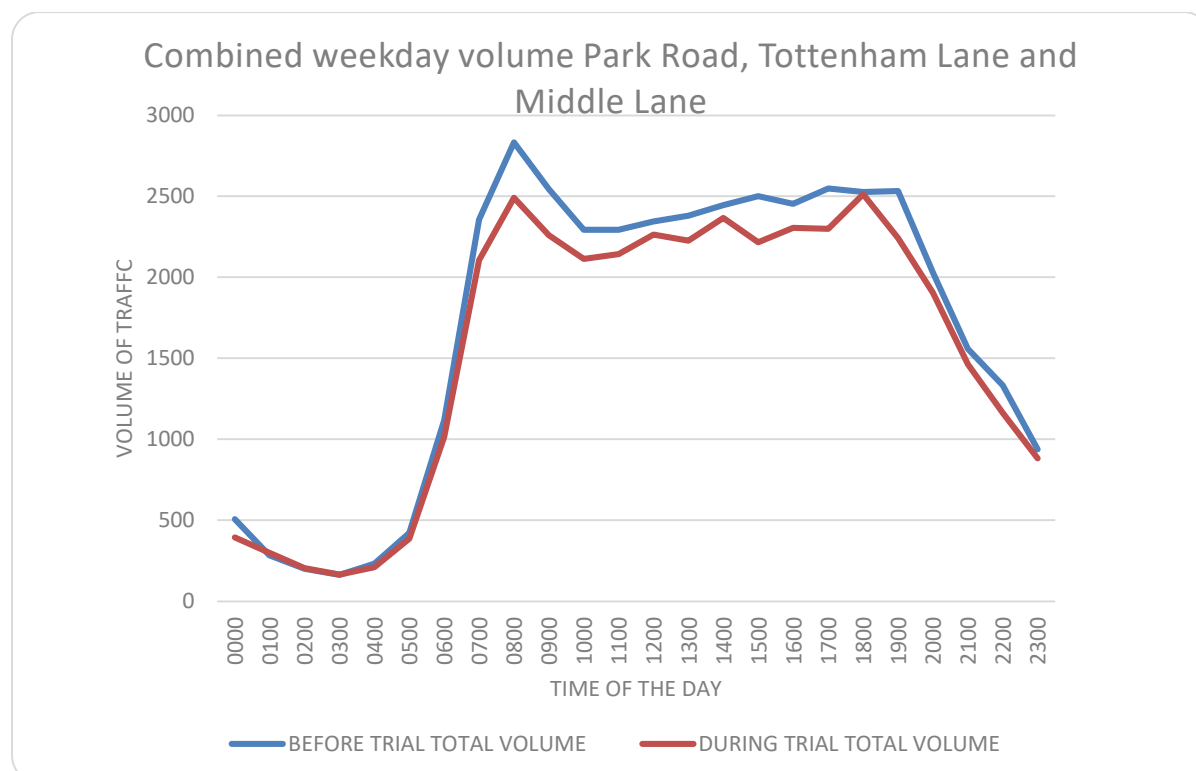


Figure 5. Volume of traffic Middle Lane + Tottenham Lane +Park Road

5.5 Other roads

Appendix C includes a graph for each location showing the volume of traffic hour by hour during weekdays before and during the trial. These graphs also include the speed of the traffic.

A summary of all the remaining roads are shown in the tables below.

Table 4. 24h volume of traffic during weekdays before and during trial on all other streets surveyed.

Lower volume		Similar volume		Higher volume	
Road name		24h volume before trial	24h volume during trial	24h volume difference	
Rokesly Avenue (Rokesly School)		4457	2066	-2391	
The Broadway*		23667	22883	-784	
Crescent Road *		2367	3036	669	
Crouch End Hill (Coleridge School)*		16938	15723	-1215	
Crouch Hill*		7875	7776	-99	
Park Avenue South		879	1379	500	
Farrer Road		1510	1334	-176	
Ferme Park Road		12452	10989	-1463	
Christchurch Road*		1611	1962	351	
Elder Avenue		2057	2069	12	
Elder Avenue (southern)		1508	1326	-182	
Elmfield Avenue		2449	1317	-1132	
Haringey Park		2142	1916	-226	
Priory Road		19249	18823	-426	

*Roads that were expected to have been affected by traffic changing routes because of the 24-hour closure at the south end of Middle Lane.

Table 5. 7am-7pm volume of traffic during weekdays before and during trial on all other streets surveyed.

Lower volume		Similar volume		Higher volume	
Road name		7am-7pm volume before trial	7am-7pm volume during trial	7am-7pm volume difference	
Rokesly Avenue (Rokesly School)*		3501	1435	-2066	
The Broadway		16504	16014	-490	
Crescent Road		1829	2412	583	
Crouch End Hill (Coleridge School)		11590	10651	-939	
Crouch Hill		5895	5863	-32	
Park Avenue South*		712	1124	412	
Farrer Road*		1254	1087	-167	
Ferme Park Road		9206	8044	-1162	
Christchurch Road		1249	1553	304	
Elder Avenue*		1576	1414	-162	
Elder Avenue (southern)*		1205	1021	-184	
Elmfield Avenue*		1919	932	-987	
Haringey Park*		1773	1512	-261	
Priory Road*		14138	13811	-327	

*Roads that were expected to be affected by traffic changing routes because of the 7am-7pm bus gate at the northern end of Middle Lane.

The roads where the volume of traffic has increased with the exception of Tottenham Lane are residential streets used as a cut through while Middle Lane was closed. Additional measures will be required to avoid this displacement.

Some roads that are generally busy, such as Ferme Park Road and Crouch End Hill, were not expected to experience a reduction in traffic during the trial, but fewer vehicles were counted.

Closing Middle Lane to the through traffic has a positive impact on Middle Lane itself and also on surrounding residential streets.

There are some roads, that regardless of having reduced the volume of traffic, it is considered the volume would decrease further if the trial is implemented on a permanent basis. This is because people are less likely to think they can get through, only to find that they should have not entered the area. These roads are:

- Middle Lane

- Rokesly Avenue
- Elmfield Avenue
- Elder Avenue

5.6 Conclusions

Based on the traffic data results, the following conclusions have been drawn:

CONCLUSIONS
Total volume of traffic in Crouch End decreased during the trial, this applies to the area directly affected by the trial (Tottenham Lane + Middle Lane + Park Road) but also to other streets such as Crouch End Hill, Crouch Hill and Ferme Park Road.
The volume of traffic accessing Crouch End decreased
Closing Middle Lane to through traffic has a positive impact on Middle Lane, but also on surrounding residential streets.
During the trial it was pointed out that Hillfield Avenue would normally act as a rat run for traffic to avoid the traffic signals at Church Lane/High Street. As traffic counts before the trial were not taken on this road it is hard to know how much traffic on this road has changed. Depending on the total number of vehicles using this road to access High Street, it may be the total volume of traffic has been reduced even more. It is recommended that traffic counts, at least over a short period, are taken on Hillfield Ave so as to quantify this.
Additional measures will need to be carried out to avoid an increase of traffic on residential streets such as Christchurch Road, Park Avenue South and Crescent Road. If measures are proposed for those roads, consideration of the impact of such measure will need to be taken to ensure further issues are not created on other residential streets.
The implementation of measures similar to the trial, but on a permanent basis, would decrease the volume of traffic on residential streets further.

6. SPEED ANALYSIS

The ATC (Automatic Traffic Counters) that gathered the data to be analysed before and during the trial also measures vehicle speed. The speed is provided as number of vehicles going at certain speeds in intervals of 15min. However, it should be noted that the locations of the ATC were chosen to primarily analyse the volume of traffic rather than speeds.

There are some locations where it is not feasible to analyse the speed. Those locations are:

- Near traffic signals.
- Near junctions where vehicles captured would give way.
- Near turning points.

Such locations do not capture the vehicle travelling at a normal, unrestricted speed. For this reason, at some locations, the information regarding the speed may not reflect speeds along those roads.

It should also be noted that at some locations, the speed may be higher than if the scheme was implemented on a permanent basis, especially at the locations near the closures. It was observed during the site visits some aggressive behaviour when drivers realise they could not gain access. It is considered this type of driving is less likely to happen on a permanent basis, after drivers had become accustomed to the new arrangement.

The 85th percentile speed and average speed have been analysed at all locations, (85th percentile speed defines the speed that 85% of driver drive at or below). Appendix C shows a graph for each location where it shows the 85th percentile speed of the traffic hour by hour during weekdays before and during the trial. These graphs also include the volume of traffic.

At some of the locations the overnight volume of vehicles was very low and therefore it was not possible to obtain the 85th percentile speed. For this reason, the speed at some locations shows 0 during the night.

None of the roads analysed resulted in a significant increase/decrease of speed during the trial. Only Middle Lane resulted in a decrease of speed during the trial, but the location of the counter could provide us with an accurate free flow speed due to its necessity to prioritise the capture of vehicle volume data in this location.

Some of the locations where the reduction of traffic is very high, could potentially lead to higher speeds if no additional measures are proposed as part of any potential permanent scheme.

Appendix C shows a graph for each location where it shows the volume of traffic hour by hour during weekdays before and during the trial. These graphs also include the speed of the traffic.

None of the roads where a decrease of traffic volume was recorded had an impact on speeds.

We have cross-referenced the vehicle speeds with traffic flows to ensure that low traffic flows are not a result of congestion physically preventing as many vehicles from passing a location.

While not as a result of the trial, it is of interest to note 85th percentile speeds were over 25mph in the following roads:

- Crescent Road
 - Crouch End Hill
 - Crouch Hill
 - Park Avenue South
 - Priory Road
 - Rokesly Avenue
- Speed on Priory road overnight was in excess of 35mph.

6.1 Conclusions

Based on the speed data results, the following conclusions have been drawn:

CONCLUSIONS
The trial did not have an impact on the speed of vehicles.
Existing speeds were too high, and should be reduced on residential streets and main roads to improve pedestrian/cyclists experience
Because traffic speed remained similar both before and during the trial, we can deduce that the volume of traffic had decreased and not merely been delayed due to congestion.

7. BUS JOURNEY TIMES

This report has used iBus data collected by TfL to analyse bus journey times, which is the recommended data to assess journey times. The iBus data is gathered using GPS signal that may vary by approximately 10m. The data is collected from one bus stop to another, including any time spent waiting at any intermediate bus stops. It also provides real time passenger journey information. The system has been operational for over 10 years and is designed to capture every bus journey.

The area assessed looks at the immediate area in Crouch End capturing the journey times from the bus stop prior to and after the area. This will minimise external influences as much as possible from the journey time data that might occur the further from Crouch End you collect the data. For example, there were temporary traffic lights between Finsbury Park and Crouch Hill during the trial.

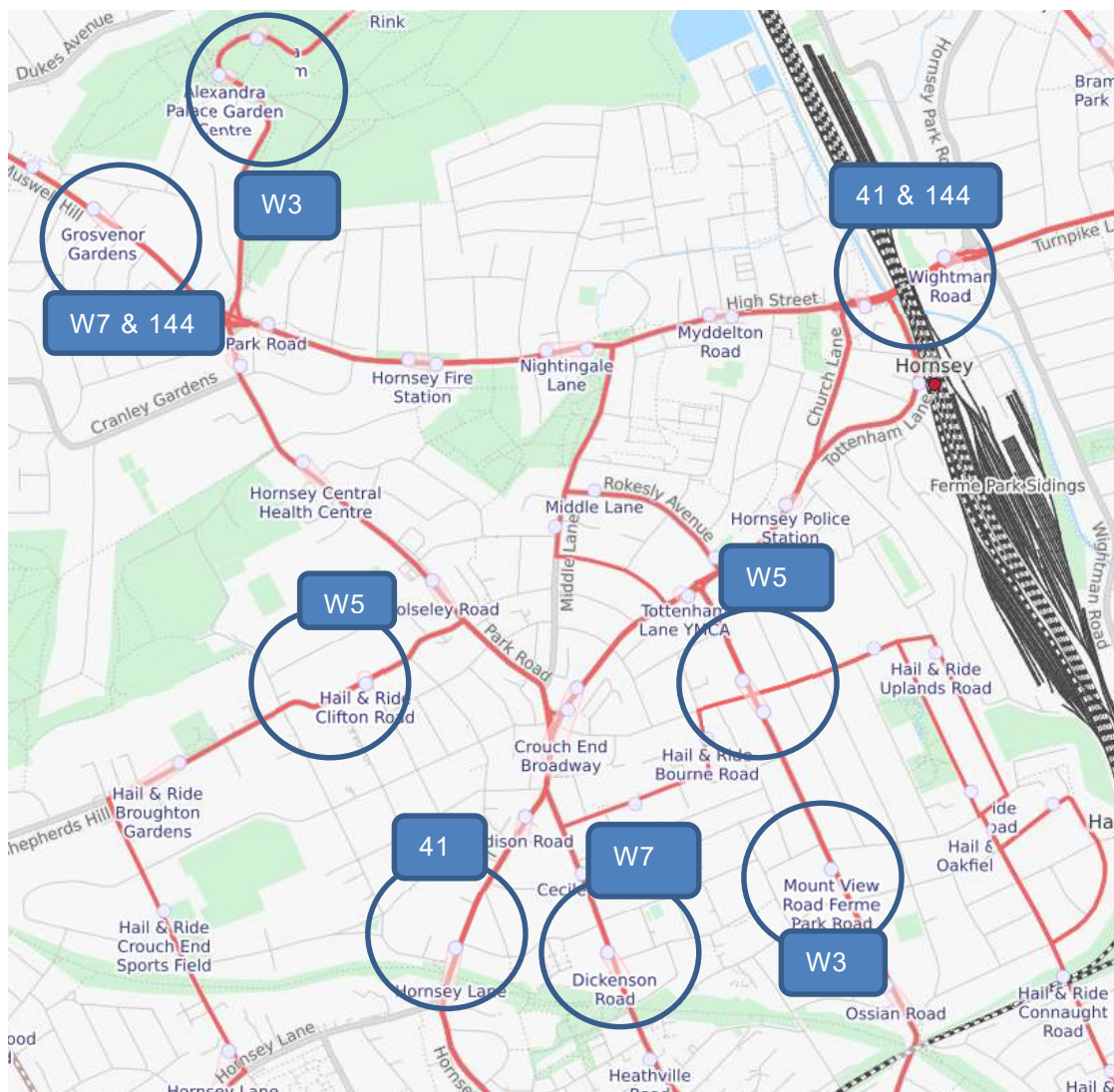


Figure 6. Start / End bus stops used to measure bus journey times

7.1 Bus Route 41

In the northbound direction (Crouch End Hill, The Broadway, Broadway Parade, Tottenham Lane, Church Lane, and High Street, Turnpike Lane) the average journey times were higher during the trial by just over a minute. This is particularly noticeable during 16.00 to 19.00 period when the average increase was nearly 3.5 minutes.

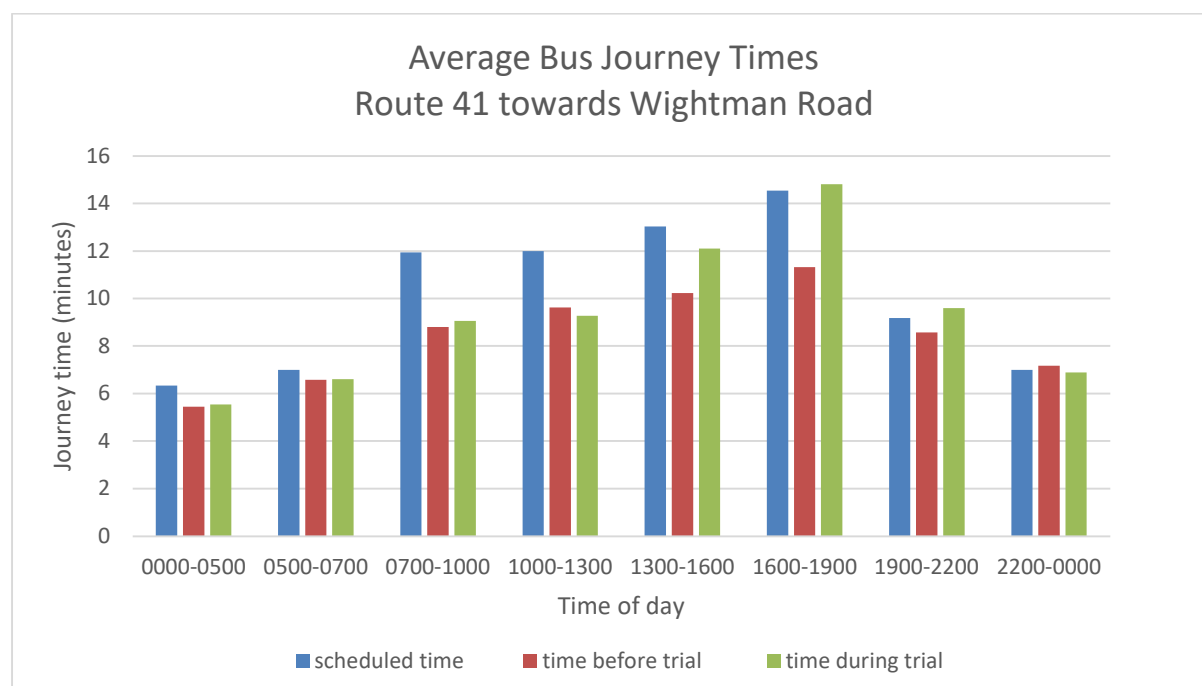
The overall the reliability of the bus service decreased during the trial. Although there was a slight improvement for period 10.00 to 13.00, there followed a significant reduction in reliability for the period 13.00 to 16.00, and on into the evening.

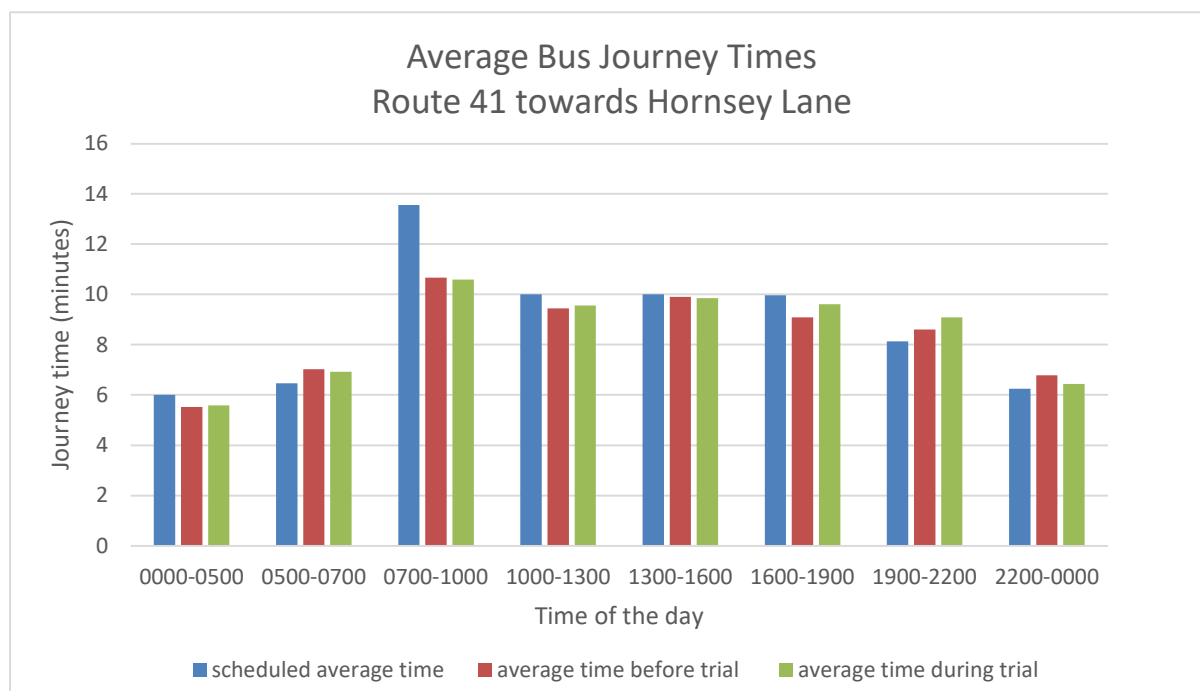
During the trial it was noted that the Crouch End area became most busy during the afternoon school run and evening peak period of traffic movements.

In the southbound direction the journey times were more consistent with the pre-trial journey times. The greatest margin of difference came in the periods 16.00 to 19.00, and, 19.00 to 22.00 were journey times during the trial increased on average by 0.5 minutes.

The overall level of reliability remained similar during the trial, in the southbound direction.

Overall, route 41 moved through the area quicker than its scheduled time. There was only up to a one-minute delay compared to the scheduled time when it was not running ahead of schedule.



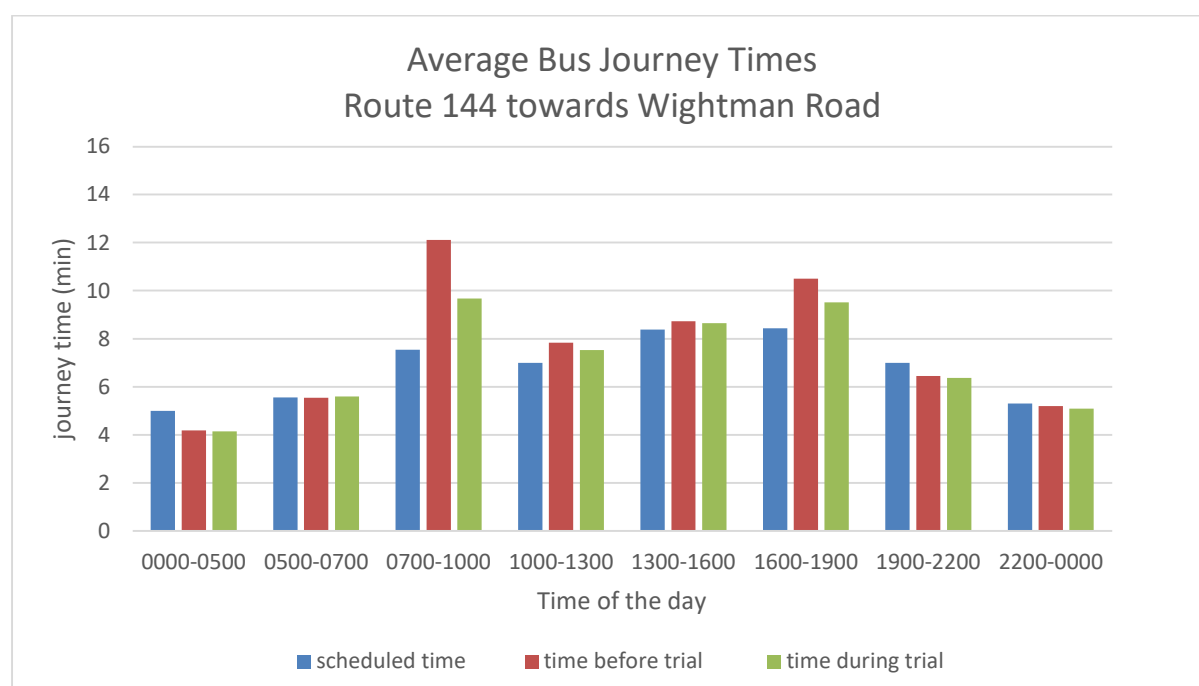


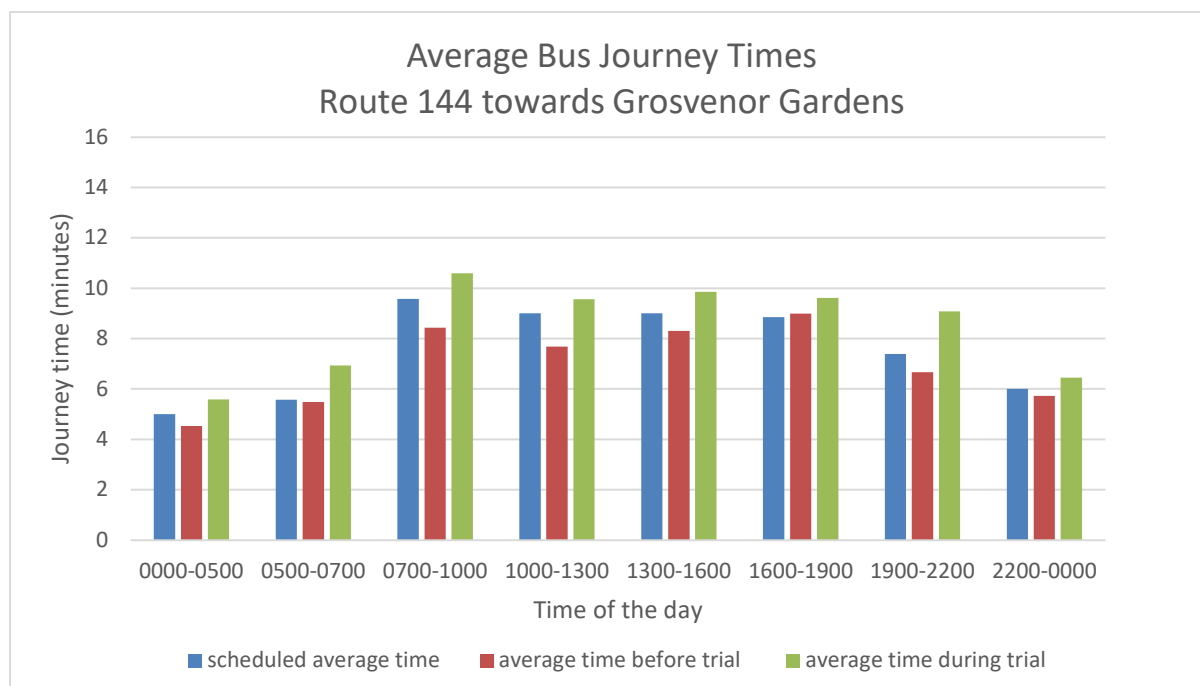
7.2 Bus Route 144

In the eastbound direction (Muswell Hill, Priory Road, High Street, Turnpike Lane) there was an overall reduction in journey times of about 0.5 minutes during the trial. This was most noticeable in the periods 7.00 to 10.00, and, 16.00 to 19.00, which had average reductions of 2.5 and 1 minute respectively.

The overall reliability remained about the same except for the period 7.00 to 10.00 which saw a significant improvement.

In the westbound direction there was an increase in journey times of about 1.5 minutes. The worst period was 19.00 to 22.00 which saw an average increase of about 2.5 minutes.



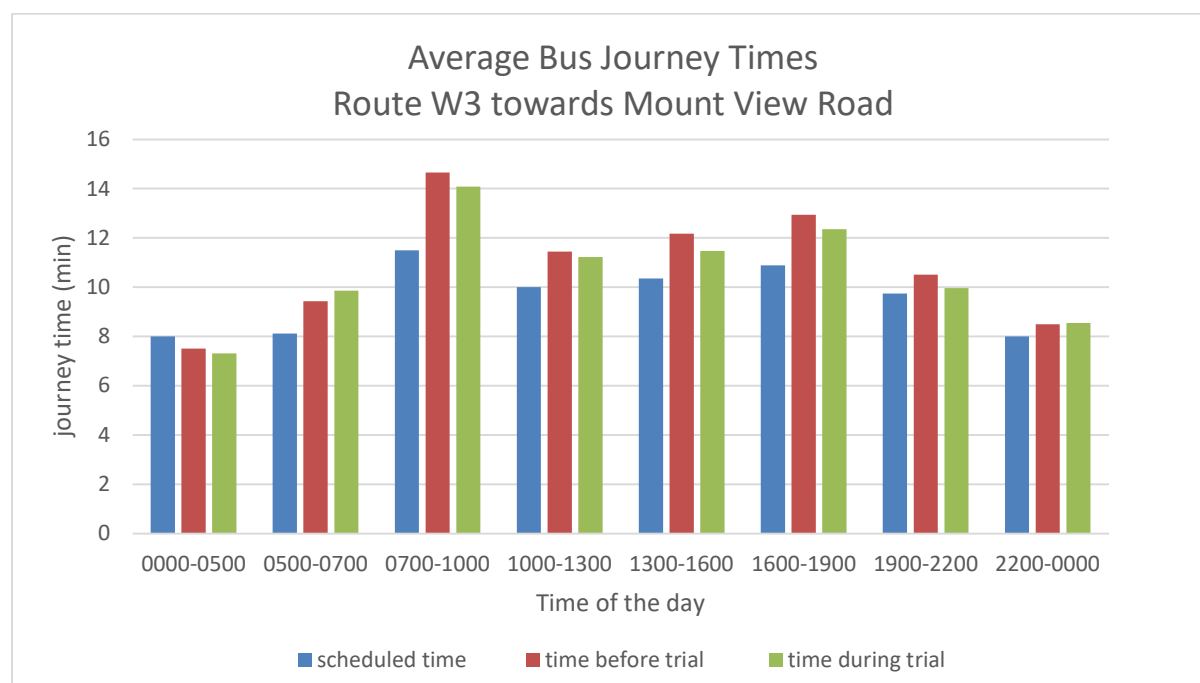


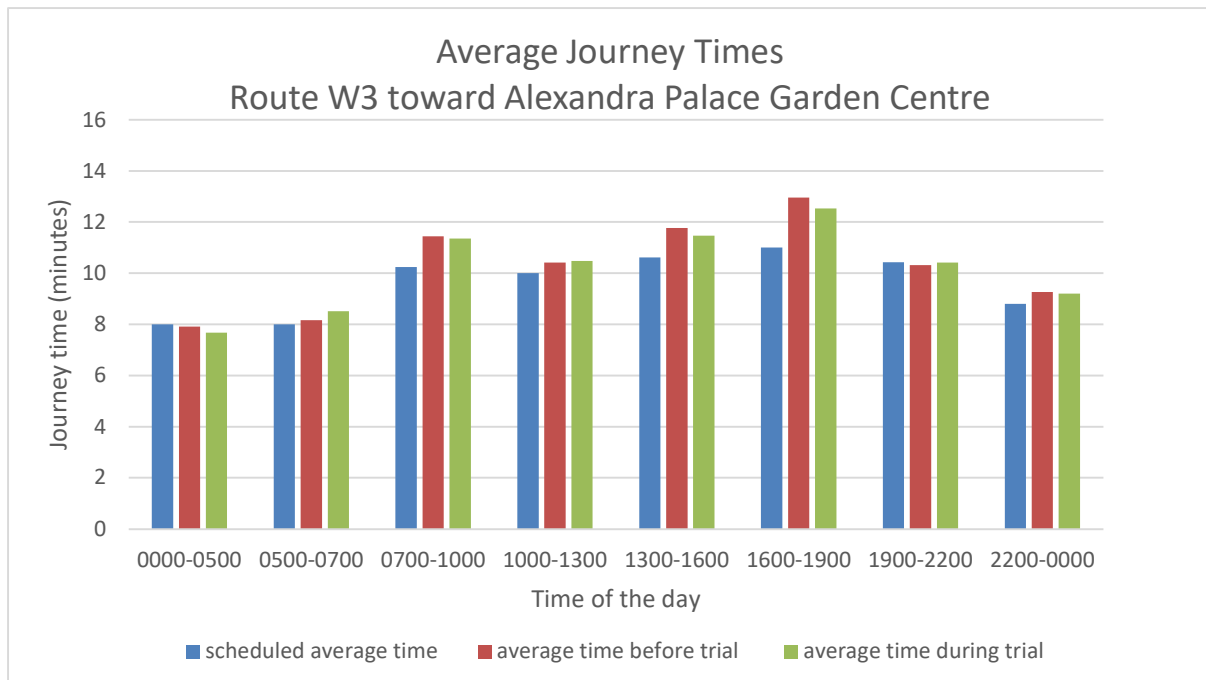
7.3 Bus Route W3

In a northbound direction (Ferme Park Road, Tottenham Lane, Rokesly Avenue, Middle Lane, Priory Road, Alexandra Palace Way) there was an overall reduction in average journey times of about 0.5 minutes. This was consistent throughout the day apart from late night and early morning which were more neutral.

In the southbound direction the journey times were consistent with the pre-trial journey times apart from periods 05.00 to 07.00 which saw a small increase in journey time, and the period 16.00 to 19.00 which saw nearly 0.5 minutes reduction in average journey time during the trial.

The overall reliability remained the about same in both directions during the trial period.





7.4 Bus Route W5

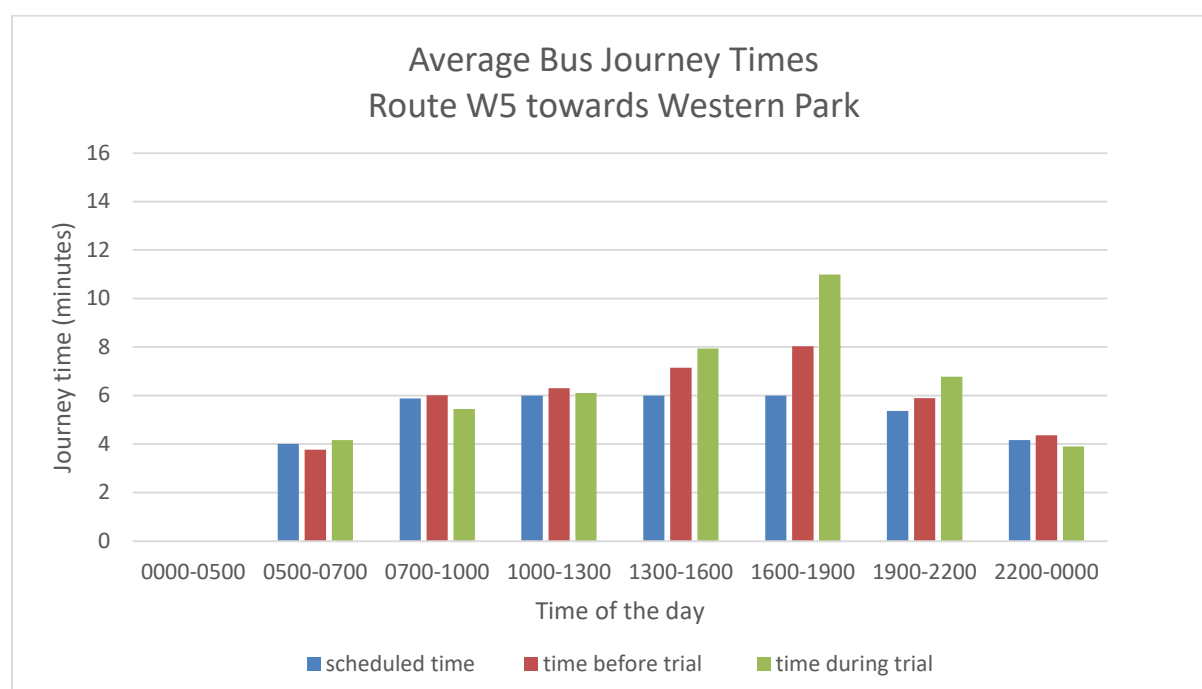
In the eastbound direction (Wolseley Road, Park Road, The Broadway, Broadway Parade, Tottenham Lane, Ferme Park Road, Weston Park) the average journey times were higher during the trial by about 0.5 minutes. This was particularly worse in the period 16.00 to 19.00 when the additional average journey time was 3 minutes.

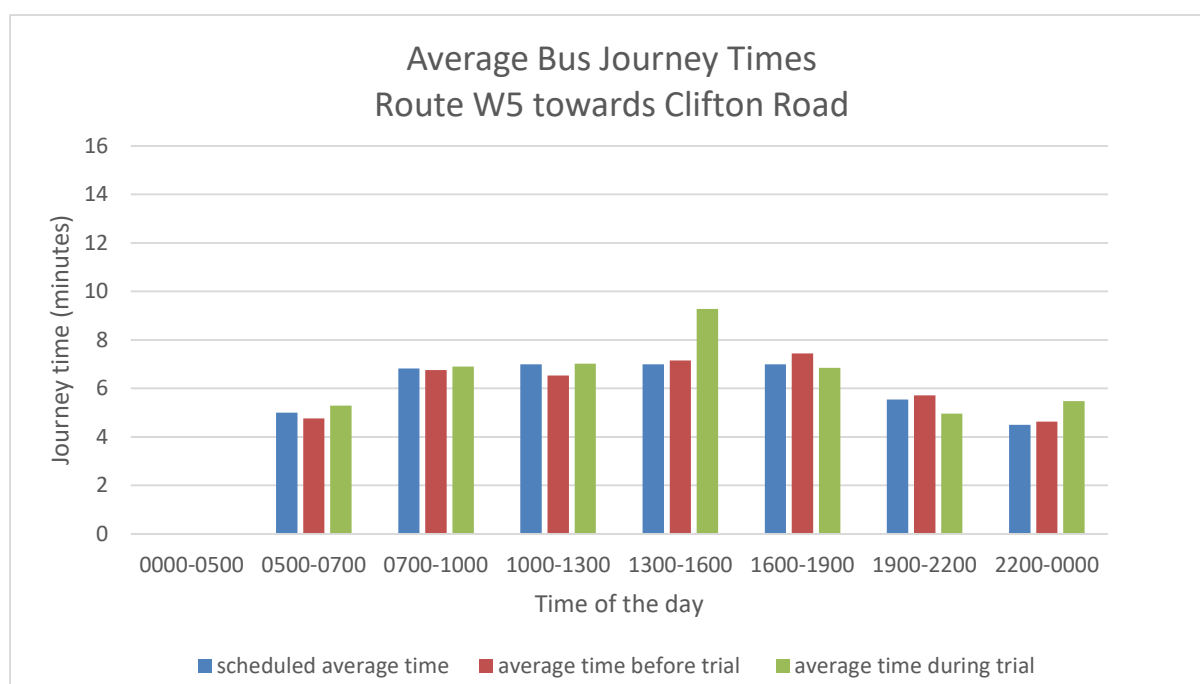
The overall reliability was similar throughout the day except during the time periods 13.00 to 16.00, and, 16.00 to 19.00 when it deteriorated.

In the westbound direction there was a small increase in average journey times of less than 0.5 minutes, although during time period 13.00 to 16.00 there was an increase of 2 minutes in average journey times.

The overall reliability was similar during the trial except for the time period 13.00 to 16.00 when it was worse.

During the trial it was noted that buses had difficulty passing oncoming traffic throughout the day on Park Road, this was particularly difficult during the afternoon school run and evening peak period of traffic movements.





7.5 Bus Route W7

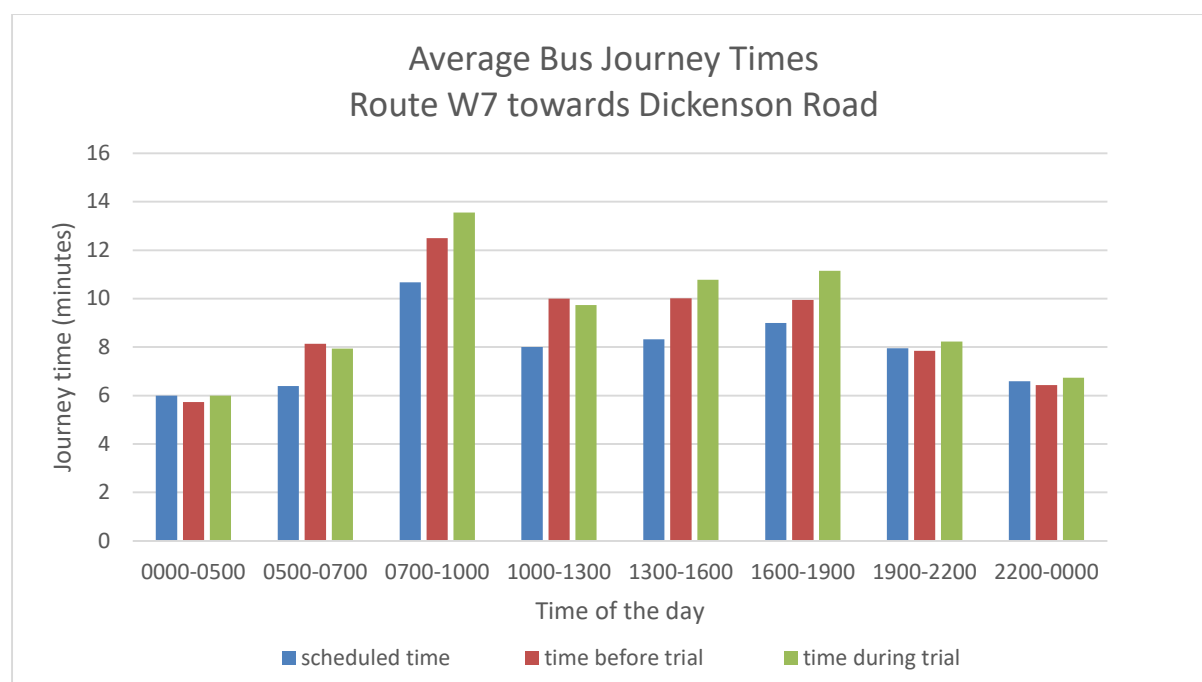
In the northbound direction (Crouch Hill, The Broadway, Park Road, Muswell Hill) there is an overall increase in average journey time of about 0.5 minutes. The maximum increase occurred during time period 16.00 to 19.00 with an increase of 3.5 minutes.

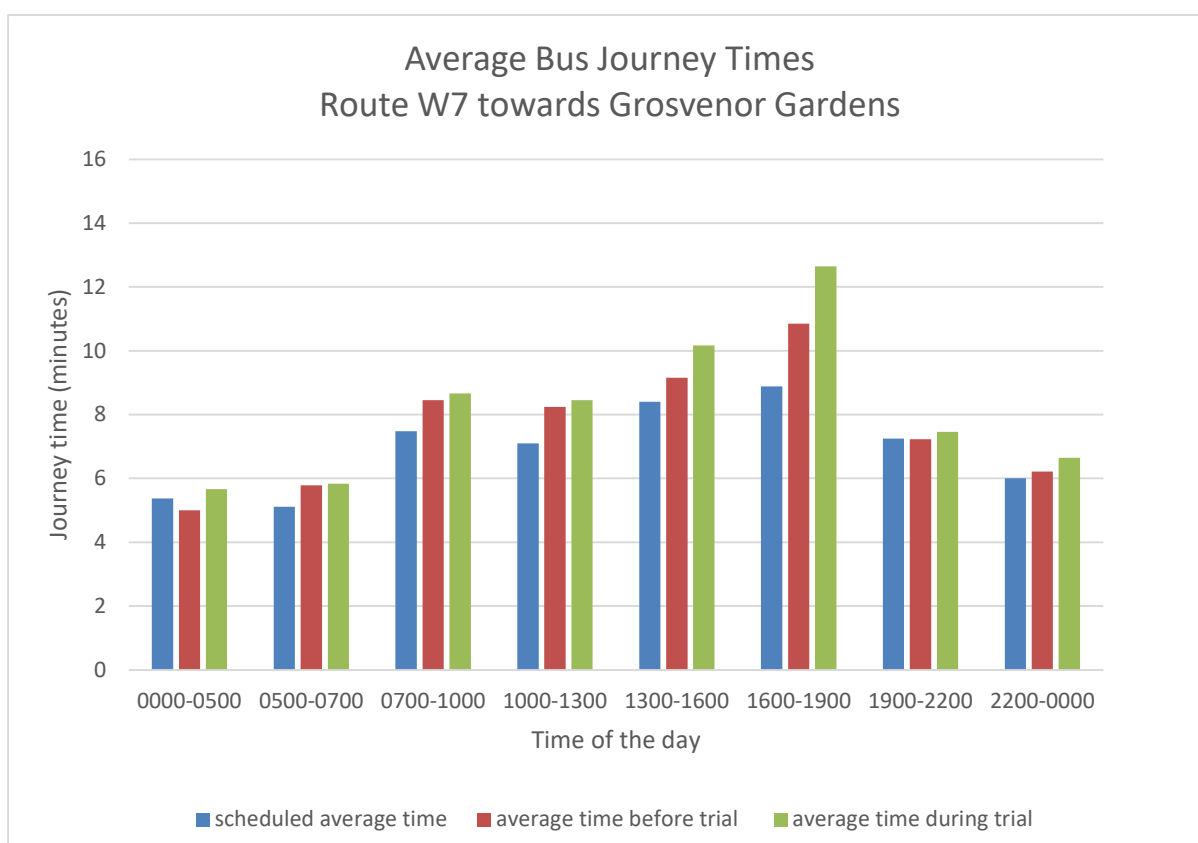
The overall reliability was similar throughout the day except during the time periods 13.00 to 16.00, and, 16.00 to 19.00 when it was significantly worse.

In the southbound direction there was a similar increase of 0.5 minutes in average journey times. With maximum increase for the time period 13.00 to 16.00 with an increase of 2 minutes.

Again, the overall reliability was similar throughout the day except during the time periods 13.00 to 16.00 it deteriorated.

During the trial it was noted that buses had difficulty passing oncoming traffic throughout the day on The Broadway, this was particularly difficult during the afternoon school run and evening peak period of traffic movements.





7.6 Conclusions

Based on the bus journey times, the following conclusions can be drawn:

CONCLUSIONS

The iBus data analysis shows that overall the average bus journey time for each bus increased during the trial by 15 seconds. This calculation can be seen in Appendix D

Although some services experienced significant delays during the trial at certain times of the day, it is considered that the average journey time per bus could be reduced if delays at Park Road, The Broadway and Priory Road could be addressed through removing obstructive parking on Park Road, pedestrian crossing improvements along Priory Road and looking at the key signalised junctions within the area.

Improving accessibility at bus stops, could reduce dwell times and therefore improve bus journey times. The removal of lay-bys, for example, keep priorities for the buses over the general traffic when leaving the bus stop, improving the overall bus journey time.

Additional waiting & loading restrictions should be considered on southern section of Tottenham Lane. This would benefit the bus service 41 and ensure the additional journey time could be reduced.

8. RECOMMENDATIONS

Looking at the results above, it is considered the trial was successful in its original aims (detailed in section 1). The profile of the project was raised with over 3,500 respondents to the on-line questionnaire and during the second week the area saw a reduction in the total volume of traffic using the Crouch End area. Site observations during the trial identified future interventions and recommendations to mitigate negative impacts. It is noted that a few roads experienced significant increases in traffic – such as Park Avenue South which would need to be addressed.

This report does not recommend necessarily the closure of Middle Lane – it does however identify improvements to the road network, should Middle Lane be closed.

Improvements will need to be made if the closures are installed on a permanent basis, those improvements are:

- Removal of parking along Park Road. An occupancy review was carried out in the morning prior to the bus gate starting at 7am (which is similar to the occupancy of overnight parking) and it is considered that there is likely to be enough capacity in the surrounding side streets to absorb any displaced vehicles should parking spaces be removed.
- Restrictions along Park Avenue South and Farrer Road would need to be developed to avoid rat running on those residential streets. There is already an existing rat-run on Farrer road to Cranley Gardens that should also be addressed. Park Avenue South is part of a cycle route and rat running should be avoided. This could take the form of a peak hour timed closure, enforced through camera technology, however any intervention should be discussed with residents prior to any implementation.
- Consideration of Christchurch Road becoming one way and turning restrictions being implemented at the junction with Crouch End Hill. Any interventions would be discussed with residents prior to any implementation.
- Consideration of turning restrictions into Crescent Road from Crouch End Hill. Any interventions would be discussed with residents prior to implementation
- The two roads mentioned above (Christchurch Road and Crescent Road)) saw an increase in volume during the trial that needs to be addressed but also have a history of collisions occurring in that area involving cyclists that needs to be addressed.
- Consideration of the time of any future bus gate on Middle Lane would need to be explored.
- Needs of the businesses using loading bays at the west end of Weston Park to be studied in detail. The potential to provide a short stay/loading bays at the south end of Tottenham Lane to be explored.
- Needs of businesses at the south of Middle Lane to be studied in detail and agree arrangements with them.
- Traffic calming measures along Middle Lane to be considered.

- Further analysis of speed data to identify any area where traffic calming measures should be implemented.
- Spot counts at the north of Hillfield Avenue should be taken so as to quantify the change should a permanent scheme be proposed. This will help to analyse the overall traffic accessing/leaving Priory Road / High Street that is likely to shift to Church Lane.
- Improve bus stops to reduce dwell times.
- Further suggestions have been received through the online survey interactive map that should be considered for any future scheme in the area.

Appendix A – Volume of traffic before and during trial – Weekdays map.

Appendix B– Volume of traffic before and during trial –
Weekdays – 7am – 7pm map

Appendix C– Volume and Speed of traffic before and during trial
– Weekdays – hour by hour graphs.

Appendix D– Bus Journey Times table



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Contact

London Office

Unit 2 Holford Yard
London
WC1X 9HD
tel: 0330 008 0855

Brighton Office

38 Foundry Street
Brighton
BN1 4AT
tel: 01273 627 183

Slough Office

Fourth Floor
The Urban Building
3-9 Albert Street
Slough, SL1 2BE
tel: 0330 008 8447

info@projectcentre.co.uk • www.projectcentre.co.uk

Quality

It is the policy of Project Centre to supply Services that meet or exceed our clients' expectations of Quality and Service. To this end, the Company's Quality Management System (QMS) has been structured to encompass all aspects of the Company's activities including such areas as Sales, Design and Client Service.

By adopting our QMS on all aspects of the Company, Project Centre aims to achieve the following objectives:

- Ensure a clear understanding of customer requirements;
- Ensure projects are completed to programme and within budget;
- Improve productivity by having consistent procedures;
- Increase flexibility of staff and systems through the adoption of a common approach to staff appraisal and training;
- Continually improve the standard of service we provide internally and externally;
- Achieve continuous and appropriate improvement in all aspects of the company;

Our Quality Management Manual is supported by detailed operational documentation. These relate to codes of practice, technical specifications, work instructions, Key Performance Indicators, and other relevant documentation to form a working set of documents governing the required work practices throughout the Company.

All employees are trained to understand and discharge their individual responsibilities to ensure the effective operation of the Quality Management System.

