



People-Friendly Streets
Better places for everyone

Clerkenwell Green people-friendly streets trial

Results from the twelve month
pre-consultation report



ISLINGTON



Summary of key findings

This pre-consultation monitoring report shows that at this point in the Clerkenwell Green people-friendly streets (PFS) trial, the project is having the intended impacts in the area of reducing motorised traffic across internal roads and increasing levels of cycling on internal roads. There has been a negligible change in anti-social behaviour and London Fire Brigade response times, while air quality has improved, with nitrogen dioxide levels slightly better than borough-wide trends. There has been a decrease in the number of vehicles speeding on internal roads.



Local streets within the neighbourhood are healthier, with traffic **falling overall by 11%***.



Across peak periods, the number of pedestrians at Clerkenwell Green has **increased by 259% on a Thursday**, and **121% on a Saturday**.



On local streets within the neighbourhood, the number of vehicles speeding **fell by 49%**.



No significant impact on London Fire Brigade response times.



Cycling has **increased by 100%** on the internal roads and **increased by 62%** on boundary roads.



Cycling has **increased by 135% on Clerkenwell Green south**, from 152 to 357 cycling trips a day, the largest increase on any street.



Air quality data from within the Clerkenwell Green neighbourhood, shows that **nitrogen dioxide levels have fallen slightly** since the scheme started.



No significant impact on anti-social behaviour and crime rates.



On boundary roads traffic increased overall, up 39% across **St John Street (up 49%)**, **Farringdon Lane (up 55%)** and **Skinner Street (up 20%)**, while there was a decrease of **13% on Clerkenwell Road**. The council will continue to monitor this carefully. These increases in traffic volumes alongside both the 62% increase in cycling volumes on boundary roads and 100% increase in cycling volumes on local roads, may reflect an overall increase in activity in this area of central London since Covid-19 restrictions have eased.

The above figures reflect before and after comparisons between August 2020 and September 2021. The traffic figures have been normalised to account for the impacts of Covid-19 lockdowns. More information on this process is available in the main report.

*The monitoring results have very likely been impacted by bollards taken without the council's permission at Sans Walk and Clerkenwell Green.

The council will continue to closely monitor all internal and boundary roads and implement mitigating measures as appropriate.



Why are we doing this?

Islington's streets belong to everyone. They are a place where life happens and where the community comes together, no matter what our individual circumstances or daily routines look like. But as technology has changed, we've seen more and more traffic taking short cuts through local streets.

Traffic in London is increasing at an alarming rate, making it increasingly difficult to walk, cycle and wheel around. 24.3 million more miles were driven through Islington in 2019 than 2013, an almost 10% increase, and traffic on London's local roads rose by 72% between 2009 and 2019. Without intervention this trend will create huge problems for our road network and our communities, and will further damage the environment, including higher levels of air pollution, which is already a serious issue for public health.

The council has always worked hard to make things better and has been planning initiatives to improve Islington's streets for some time but Covid-19 has had a big impact on the way we use our streets. During the first lockdown, they were quieter, felt safer and journeys were quicker. Residents told us they really benefited and were able to enjoy their neighbourhood more. But research shows that traffic volumes will continue to increase making our streets more unsafe, unhealthy, and worse than before the crisis began.

Nothing will ever be quite the same after the pandemic, which is why now is the time to make bold changes for a cleaner, greener and healthier Islington. So, we took this opportunity to look at how we can make our neighbourhoods better and safer, for living, working and playing, for everyone.

Through the people-friendly streets programme, we want to bring life back to Islington's streets. Taking the

best of what we have learnt in the past year, to make our borough cleaner, greener, healthier and more equal place for everyone. Clerkenwell Green, like many neighbourhoods within the borough, has suffered from increased traffic volumes in recent years from the use of the area as a short cut.

Quantitative evidence from other areas shows that low traffic neighbourhoods (LTNs) are a successful way for us to achieve these objectives. The data in this pre-consultation monitoring report shows that they can also make a positive difference in Islington. People-friendly streets make it easier, safer and more pleasant for people to walk, cycle and use wheelchairs, buggies and scooters. Every local trip switched from a motor vehicle to another way of travelling means one fewer vehicle on the road, leaving the roads clearer for people who have no choice but to use cars.

The Clerkenwell Green people-friendly streets trial began in September 2020, as one of the low traffic neighbourhoods under the people-friendly streets programme. As part of the council's urgent Covid-19 response, the trial was implemented swiftly to make walking and cycling easier and safer as alternatives to public transport and prevent a car-based recovery.

The LTN will help achieve the council's wider ambitions to redesign Clerkenwell Green to create an improved public space, as consulted on and supported by the majority of respondents in 2017.





Objectives

As the project was implemented as a trial under an experimental traffic order (ETO) it is very important to monitor it using key data points in order to understand its impact. It is also important to us to make this information publicly available so residents can find out about the impact in their area.

The PFS area trials are intended to contribute to the following three objectives from the Islington Transport Strategy:

Objective One: Healthy

To encourage and enable residents to walk and cycle as a first choice for local travel.

Objective Two: Safe

To work with the Mayor of London to achieve “Vision Zero” by 2041, by eliminating all deaths and serious injuries on Islington’s streets and reducing the number of minor traffic collisions on our streets.

Objective Three: Cleaner and greener

To contribute to the council’s commitment to Islington becoming net zero carbon by 2030, to improve air quality, and protect and improve the environment by reducing all forms of transport pollution.

This pre-consultation monitoring report reflects a before and after assessment of the trial using the following data: motorised traffic counts and speeds, cycling counts, pedestrian counts, air pollution data, London Fire Brigade response times, crime and anti-social behaviour (ASB) data, and bus journey times.

These will be monitored over time in the PFS trial area to measure the success of the trial against the previously mentioned objectives:

- Reduce motorised traffic and vehicle emissions across internal roads
- Reduce motorised traffic overall across internal and boundary roads
- Increase levels of cycling across internal roads
- Increase levels of walking
- Reduce levels of speeding on internal roads

In addition to this, the council is monitoring:

- Levels of motorised traffic and related air pollution on boundary roads
- Crime and ASB on internal roads
- Emergency service response times
- Levels of speeding on boundary roads
- Bus journey times

The council is also exploring how to monitor the following through further quantitative and qualitative monitoring and analysis:

- Reduce collisions across internal and boundary roads
- Increase sense of community
- Impact on people with disabilities and their ability to travel

Future decisions to keep, remove or amend the Clerkenwell Green people-friendly streets trial are not dependent on any single metric, but with feedback from the online survey and upcoming consultations with residents and stakeholders.





Pre-consultation results



Motorised traffic on internal roads

- Overall, motorised traffic volumes on internal roads decreased by 11%. The greatest decrease has been on Bowling Green Lane, where there was a 44% decrease.
- There have been increases in traffic on some internal roads however the increases by volume are small (all traffic volumes are below 900 vehicles a day). The council will continue to monitor the situation.
- Across internal roads, average speeds have decreased by 5% and the number of vehicles speeding has decreased by 49%.
- At various points during the trial, the removable bollards at Sans Walk and Clerkenwell Green were taken without the council's permission. This is likely to have compromised the trial's effectiveness.



Motorised traffic on boundary roads

- Across the boundary roads, the total volumes of motorised traffic have risen by 39%.
- There is a mixed picture in terms of the change in motorised traffic volumes on boundary roads. On average, motorised traffic volumes have changed on:
 - Skinner Street by +20%
 - St John Street by +49%
 - Farringdon Lane by +55%
- Across boundary roads, average speeds have seen a negligible change.



Cycling on internal roads

- Overall cycling has increased by 100% across the internal road locations.
- The greatest proportional increase has been on Clerkenwell Green south, where cycling has increased by 135% from 152 to 357 cycling trips a day.



Pedestrians at Clerkenwell Green

- Across peak periods, pedestrian numbers have increased by 259% on a Thursday and 121% on a Saturday.



Air quality

- NO2 levels in Clerkenwell Green have been below the annual objective level of 40 micrograms/m³ at all monitoring sites post-implementation (September 2020 to July 2021). Levels of NO2 in Clerkenwell Green are negligibly lower than the previous year at most sites where data is available from 2019. This reflects borough-wide trends, suggesting the PFS trial has not had an adverse impact on air quality.



London Fire Brigade response times

- Comparing the 2019 average response time and the post-implementation period average, the response time decreased negligibly for the Clerkenwell Green Ward area. Given the extent of variables that affect response times, these results are considered negligible by the LFB and the council. As such, it is the view of the LFB and the council that the PFS area in Clerkenwell Green has not impacted on the emergency service's attendance times.



Anti-social behaviour and crime

- Analysis shows anti-social behaviour and crime patterns in the area are in line with patterns across the borough overall, suggesting the PFS trial in Clerkenwell Green has not had an impact on anti-social behaviour and crime patterns.

The public consultation for the PFS LTN at Clerkenwell Green is taking place between Thursday 4 November and Thursday 2 December 2021.

More information is available at www.islington.gov.uk/peoplefriendlystreets/clerkenwellgreen

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Glossary

Below are the meanings of some words used throughout this report that you may be unfamiliar with, or which may have a specific meaning in this context:

85th Percentile Speed – The 85th percentile is used in transport monitoring to gauge changes in speeds and speeding behaviour. It is the speed at which 85% of traffic will be travelling at, or below, along a street (15% of traffic will be travelling faster than this speed). For example, if the 85th percentile speed is 20mph, then 85% of vehicles will be travelling at 20mph or less.

AM peak – In this report “AM peak” refers to the hours between 07:00h and 10:00h.

Automatic Traffic Counters – “Automatic traffic counters” (ATCs) measure traffic volumes and speeds using two thin tubes that run across the street and are connected to a sensor. When wheels pass over the tubes, the pressure impact is interpreted by the sensor to identify the type of vehicle passing over, and the speed with which it passed. They are considered to be approximately 98% reliable. (See Appendix 9 for more details).

Boundary roads – For the purpose of this report, the “boundary roads” of the Clerkenwell Green trial area are St. John Street to the east, Skinner Street to the north and Farringdon Lane to the west. Due to changes in projects to be delivered by the council, baseline counts were not taken on Clerkenwell Road, so therefore has not been included in the overall boundary roads analysis. Rosebery Avenue has not been included in the overall boundary roads analysis, although counts were taken here and are presented in separate tables. Rosebery Avenue may also have been impacted by the Amwell LTN trial area, which may have impacted the results. These are explored in more detail in the results and insights sections throughout the report.

Experimental traffic order – An “Experimental Traffic Order” (ETO) is like a permanent Traffic Regulation Order in that it is a legal document that imposes traffic and parking restrictions. However, unlike a Traffic Regulation Order an Experimental Traffic Order can only stay in force for a maximum of 18 months while the effects are monitored and assessed. An Experimental Traffic Order is made under Sections 9 and 10 of the Road Traffic Regulation Act 1984.

INRIX - INRIX refers to a smart traffic analysis system accessed via an online platform which aggregates GPS data from a variety of sources to provide average travel speeds on various streets. Historically collected data can be compared to analyse average speeds and travel times on various segments of roads.

Internal roads – These are roads which fall in between two or more boundary roads in low traffic neighbourhoods. For the purpose of this report, “internal roads” are local roads in the Clerkenwell Green trial area where the project aims to reduce the amount of traffic through the introduction of traffic filters. These roads are generally narrower than boundary roads. We have collected traffic counts on some, but not all, of the internal roads in the Clerkenwell Green area.

Low traffic neighbourhood – A “low traffic neighbourhood” (LTN) is an area where a number of traffic filters are strategically placed to make it impossible or very difficult to cut through an area by motor vehicle. This stops drivers using local streets as shortcuts and makes it safer and easier to walk and cycle. In this report the Clerkenwell Green people-friendly streets (PFS) trial refers to a low traffic neighbourhood implemented in Islington under an experimental traffic order. The position of the traffic filters means that drivers (including residents, deliveries and emergency services) are still able to reach any part of the neighbourhood.

Normalised – In this report “normalising” means to adjust traffic count figures to take into account the impact of COVID-19 on traffic patterns. This methodology is explained below in more detail, but in simple terms it means that the traffic count figures have been increased to project what the 2020 traffic counts may have looked like if traffic levels were at 2019 levels.

Observed – In this report “observed” means the data that was collected, which has not been adjusted to take into account the impact of COVID-19 on traffic patterns. This is the actual data that was supplied by the data collection company used.

PM peak – In this report “PM peak” refers to the hours between 16:00h and 19:00h.

Traffic filters - “Traffic filters” are restrictions in the street to prevent motor vehicles passing through, either by presenting a physical barrier, such as bollards or planters, or by camera enforcement. Camera enforcement is used to enable buses and emergency vehicles to access the area. People are legally able to walk, cycle and wheel though the filter (and use non-motorised scooters).

Independent production of the report by Project Centre Ltd

This report has been produced by Project Centre Ltd in partnership with Islington Council. Project Centre is a multi-disciplinary design, engineering and landscaping architecture consultancy, whose highly talented people are passionate about creating places that are attractive, innovative, sustainable and safe. Project Centre's areas of expertise include air quality improvement schemes, neighbourhood traffic schemes, pedestrianisation, cycle design, road safety, traffic modelling and traffic data analysis.

The methodologies and analyses in this report are set out in greater detail in Appendix 10 and have been independently peer reviewed (more information on the peer review is available in the Clerkenwell Green interim monitoring report). Drafting the baseline from TfL count locations outside of Islington and from additional years was considered and tested in the peer review but resulted in only small differences and therefore was not taken forward as the chosen methodology.

Clerkenwell Green PFS area in context

As part of Islington Council's PFS programme and the need for an urgent transport response to COVID-19, Clerkenwell Green became the third PFS area trial in the borough. The area had been affected by lockdown more than usual due to its proximity to central London and a reduced number of people going to visit and work in the area and in Smithfield Market. The PFS has been created to allow more space for people to walk and cross the road safely, cycle as part of everyday life, and to use buggies or wheelchairs, thereby making the area's roads cleaner, greener and healthier for residents. Clerkenwell Green is located in central London and has mixed land uses with shops and offices which makes it unique among the other PFS areas implemented in Islington to date, which tend to be more residential.

The traffic filters in the Clerkenwell Green PFS area have been installed at four locations as shown in Map 1: Clerkenwell Green where it connects to Aylesbury Street, Sans Walk between St. James's Walk and Scotswood Street, and at both ends of Corporation Row, including the southbound entry lane to Corporation Row from Skinner Street. At each end of Corporation Row there is a camera-enforced bus gate to allow access for the 812 bus service. The Clerkenwell Green and Sans Walk filters are enforced using bollards. The locations of these filters and the boundary roads make Clerkenwell Green one of the smaller PFS trial areas implemented by the council so far.

The Clerkenwell Green PFS traffic filters will help achieve the council's wider ambitions to redesign Clerkenwell Green to create an improved public space, as consulted on and supported by the majority of respondents in 2017.

This monitoring report provides data and insights relating to the Clerkenwell Green PFS trial specifically by comparing data from before implementation in August 2020 (referred to as “baseline traffic counts”) to twelve months after implementation in September 2021 (referred to as “pre-consultation traffic counts”).

External Factors

It is important to consider all these results in the context of three main external factors which could be contributing towards the data.

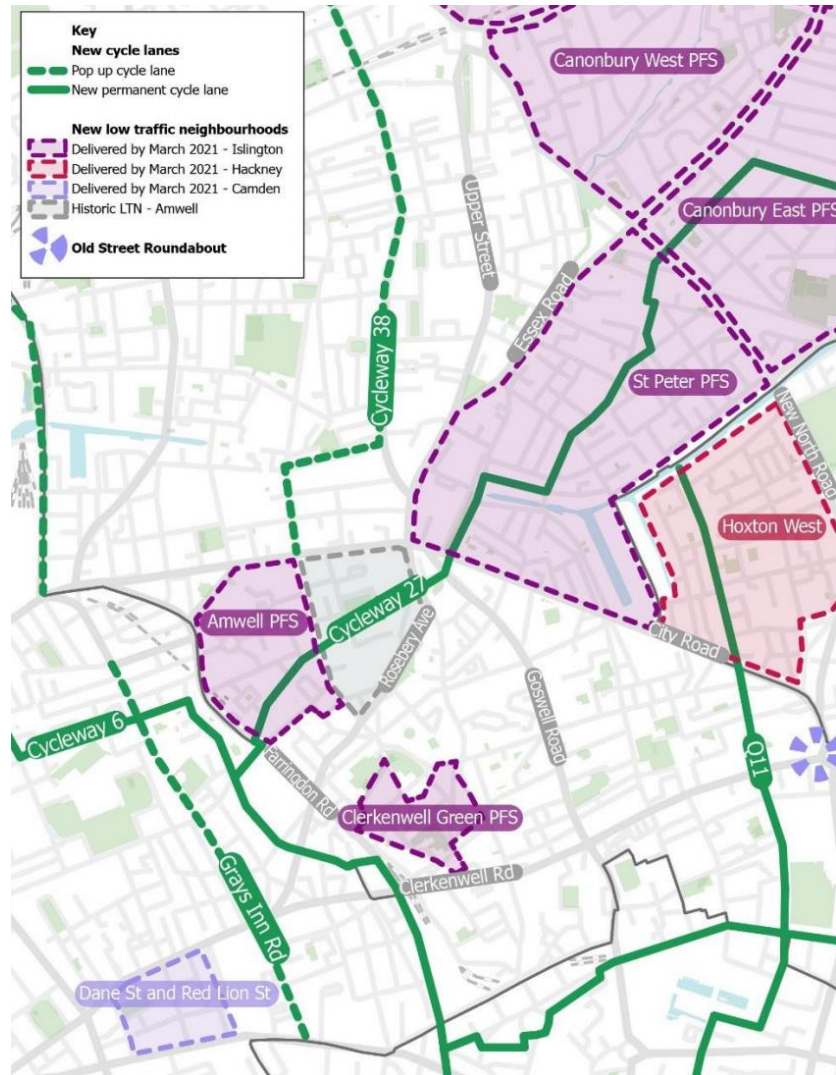
Nearby Low Traffic Neighbourhoods – As can be seen in Map 1, the Clerkenwell Green area is in close proximity to the Amwell low traffic neighbourhood, and shares Rosebery Avenue as a boundary Road, with Skinner Street and St. John Street also nearby. It is therefore not possible to separate out the impact the Amwell low traffic neighbourhood may also be having on Rosebery Avenue, St. John Street and Skinner Street.

Weather – Weather can have a significant impact on travel choices, especially cycling, and air pollution. During the week the baseline traffic counts were taken in the week commencing 17th August 2020, the UK mean temperature was 15.9°C, which is 1.0°C above the long-term average and rainfall was 135% of average. During the week the pre-consultation counts were taken in the week commencing 6th September 2021, the UK mean temperature was 14.7°C, which was 2.1°C above the long-term average. Rainfall was 82% of average for the month. (Note - Data was not available on a regional or sub-regional level.)

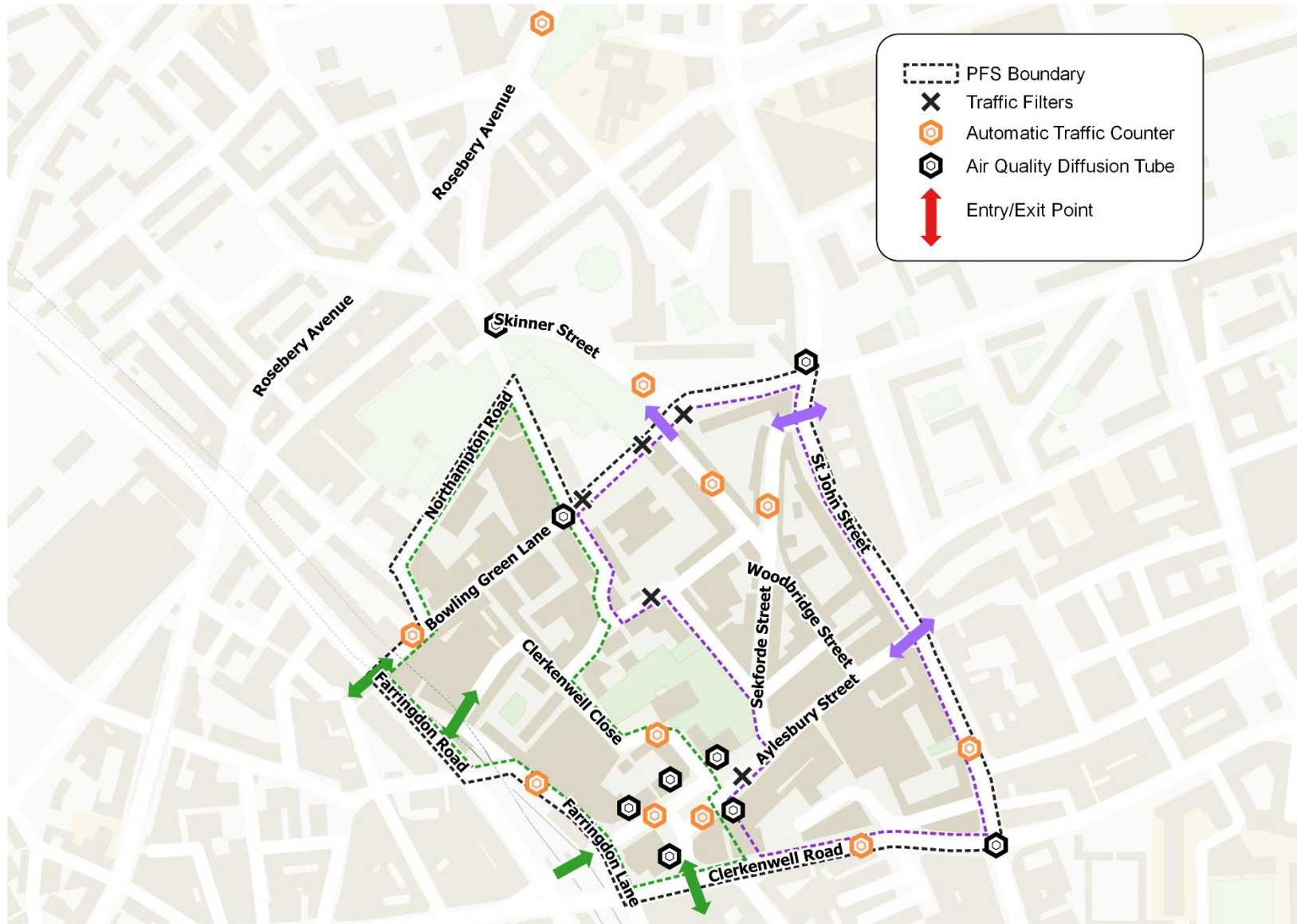
National lockdowns – As England has been going in and out of national lockdowns as a result of COVID-19, it is worth noting that the baseline counts in August 2020 took place after the first national lockdown was lifted, but some restrictions remained in place. By September 2021, all restrictions had been lifted. Schools had also re-opened at this time, which may have resulted in a general rise in traffic volumes.

Clerkenwell Green location and character – Clerkenwell Green is located in central London and has mixed land uses with shops and offices which makes it unique among the other PFS areas implemented in Islington to date, which tend to be more residential.

Map 1: Clerkenwell Green PFS area in wider context of nearby LTN areas and cycle lanes



Map 2: Clerkenwell Green PFS measures and monitoring sites



Traffic counts approach

Traffic counts in the Clerkenwell Green PFS area

The count data presented in this report is not traffic modelling, but actual observed traffic, comparing traffic flows in August 2020 with September 2021, before the implementation of the Clerkenwell Green area, and twelve months after the Experimental Traffic Order (ETO) went live respectively.

Pre-consultation counts were carried out twelve months after implementation in September 2021. Earlier results from the “interim” counts can be found in the LB Islington report [Clerkenwell Green People-Friendly Streets Trial – Results from the six month monitoring report.](#)

Completed dates of traffic counts

Baseline (“before”) counts: 17 – 24 August 2020

Clerkenwell Road Baseline (“before”) counts: 28 March 2019*

Clerkenwell Green trial begins: 7 September 2020

Interim counts: 1 – 8 February 2021

Clerkenwell Road interim counts: 22 – 29 March 2021

Pre-consultation (“after”) counts: 6 – 13 September 2021

Clerkenwell Road uses a different baseline. Due to changes in nearby council transport projects, no baseline counts were taken in August 2020. Therefore, the Clerkenwell Green baseline uses turning counts from Thursday March 28th 2019, which only cover the AM and PM peak traffic volumes on this day. The site was subsequently included in the pre-consultation counts.

The data for Rosebery Avenue is also presented in separate tables from the other boundary roads, and is not included in the overall

boundary roads average. This is because the location on Rosebery Avenue where traffic counts took place is not on the boundary of Clerkenwell Green PFS area. The counter on Rosebery Avenue was located further north, beyond the boundary section, in order to monitor for any wider impacts on the northern section of Rosebery Avenue in relation to the Clerkenwell Green PFS. The Skinner Street counter is expected to pick up any traffic changes on the section of Rosebery Avenue that borders the Clerkenwell Green PFS (between Farringdon Road and Tysoe Street).

Automatic Traffic Counts (ATCs) have been used at all of the sites in the Clerkenwell Green PFS area. ATCs measure motorised and cycle traffic volumes and motorised traffic speeds and classify the traffic by type. Transport for London (TfL) use radar counts on the Transport for London Road Network (TLRN), which measure motorised traffic volumes and speeds. More information about the different types of counts and which type was used at each site is detailed in Appendix 10.

Pedestrian counts were also taken during the AM (0700-1000), Inter (1200-1400), and PM (1600-1900) peaks on both a Thursday and a Saturday during the weeks the baseline and pre-consultation counts were taken; this was Thursday 20 August 2020 and Saturday 22 August 2020 during the baseline counts, and Thursday 9 September 2021 and Saturday 11 September 2021 during the pre-consultation counts.

Analysis and normalisation methodology overview

All of these counts were undertaken in full awareness of the disruption caused by the COVID-19 travel restrictions, and the need for a process to interpret the results in a way that accounts for this disruption.

Daily volumes of motorised traffic have been drawn from a range of 12 permanent traffic counters managed by Transport for London across Islington and used to establish monthly averages in 2019 and 2020. The locations of these counters are detailed in Appendix 9. The percentage difference between the same month across the two different years has been used to adjust the counts to normalise for COVID-19 disruption between the months in which counts have been taken. The methodology is set out in greater detail in Appendix 10. Drafting the baseline from TfL count locations outside of Islington and from additional years was considered and tested but resulted in small differences and was therefore not taken forward as the chosen methodology.

For context, the difference in motorised traffic volumes was greatest in April 2020, where the volumes were approximately 50% of what they had been in April 2019.

Considering the months of the Clerkenwell Green counts analysed in this report: in August 2020 motorised traffic volumes across the permanent counters in Islington were approximately 6.55% lower than in August 2019; in September 2021, motorised traffic was approximately 4% lower than in September 2019. This could be explained by the fact that the first lockdown had been eased during the time the baseline counts were taken whereas all restrictions have been lifted since. The month in which the specific count batch was taken has been used to normalise the results. As such, the baseline and pre-consultation motorised traffic counts have been adjusted by a different amount. With specific regard to the Clerkenwell Road baseline traffic volumes, these are not normalised as they are from 2019, before COVID-19 travel restrictions were put in place.

Table 1: Normalisation factors for 2020 and 2021 traffic in Islington

Month	Recorded traffic volumes
March 2020	-27.97%
April 2020	-49.87%
May 2020	-38.34%
June 2020	-22.10%
July 2020	-13.46%
August 2020	-6.55%
September 2020	-6.90%
October 2020	-10.48%
November 2020	-22.13%
December 2020	-16.11%
January 2021	-25.69%
February 2021	-24.84%
March 2021	-31.28%

April 2021	-22.52%
May 2021	-18.68%
June 2021	-8.90%
July 2021	-6.16%
August 2021	-2.59%
September 2021	-4.17%

Interpreting count results

Unless specified otherwise, the seven-day daily average has been used and discussed in traffic volumes analysis in this report. Results for other time period parameters are available for each site in the appendices.

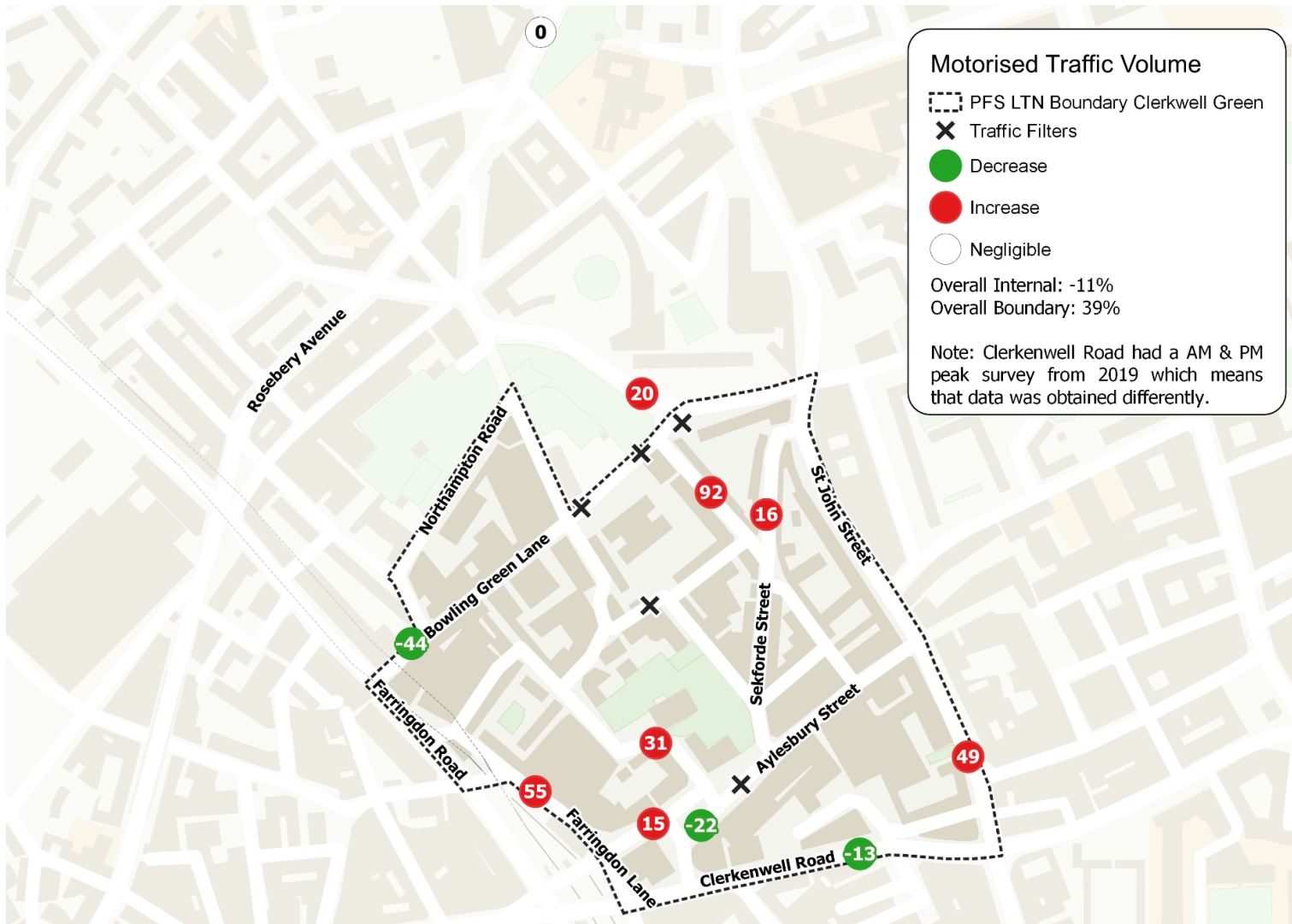
Raw data has been analysed and compared to give the observed results. The observed results have been adjusted in accordance with the normalisation process described in the previous section to give the normalised results. Both the normalised results and the observed results can be found in the results tables in this report and in the appendices. The figures cited for changes in volumes of traffic in this report are normalised, and percentages have been drawn from the differences between normalised results.

A negative number or percentage indicates a decrease between the two counts, while a positive number or percentage indicates an increase.

Traffic flows fluctuate on a daily basis (generally up to 10%). As such, changes within -10% to +10% are considered insignificant (i.e., no or negligible change).

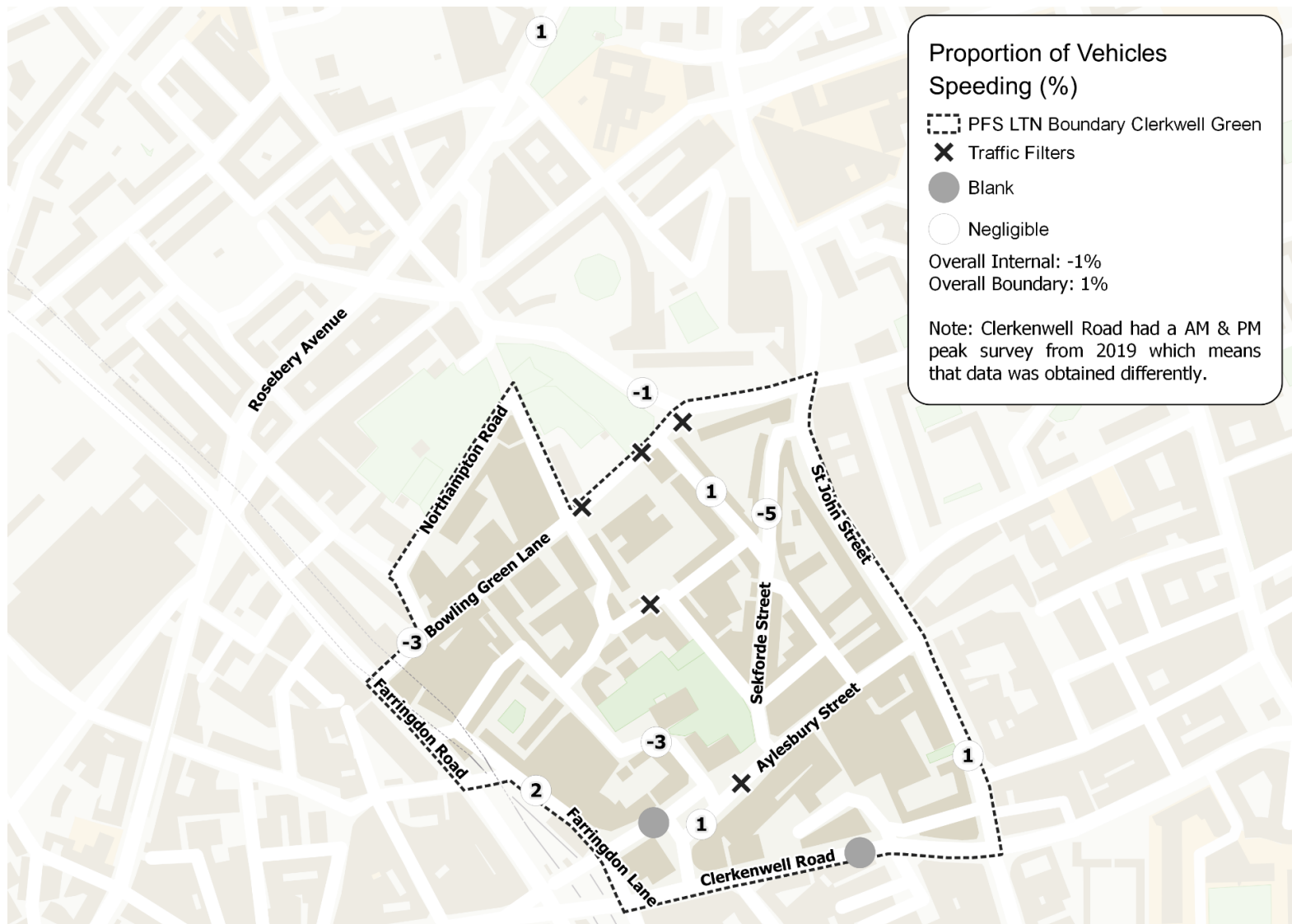
As vehicles travelling through the PFS area may travel through multiple counter sites, it is almost certain that the number of vehicles counted in the area is higher than the actual number of trips. Therefore, the number of vehicles counted should not be conflated with the number of trips or number of vehicles present within the area, as a vehicle could be counted multiple times.

Map 3: Percentage change in motorised traffic volumes (seven-day daily averages)*



* The monitoring results have very likely been impacted by bollards taken without the council's permission at Sans Walk and Clerkenwell Green.

Map 4: Percentage change of proportion of motorised vehicles speeding (seven-day daily averages)



Motorised traffic on internal roads

Motorised traffic volumes on internal roads

Results (seven-day daily averages)

Table 2: Motorised traffic volumes on internal roads

	Observed- Aug 2020	Normalised- Aug 2020	Observed - Sept 2021	Normalised - Sept 2021	Difference	Difference Normalised	Difference Normalised %
Bowling Green Lane	1,130	1,209	652	681	-478	-529	-44%
Woodbridge Street	91	97	179	187	88	90	92%
Sekforde Street	201	215	238	249	38	34	16%
Clerkenwell Green south	472	505	379	396	-93	-110	-22%
Clerkenwell Green west	723	774	851	888	128	114	15%
Clerkenwell Close	219	234	293	306	74	72	31%
Overall internal	2,836	3,035	2,593	2,706	-243	-328	-11%

Goods Vehicles and Motorcycle volumes on internal roads

Results (5-day total weekday volumes)

LGV stands for Light Goods Vehicle. This is defined as a goods vehicle or bus with two, three or four axles. HGV stands for Heavy Goods Vehicle. This is defined as any articulated vehicle with three or more axles. M/C refers to a motorcycle, or any kind of powered two-wheel vehicle such as a motor scooter.

The results shown are for 5-day total weekday volumes, excluding weekends. This figure has been used because goods vehicle traffic is generally lower at weekends, so the weekday data gives a more realistic impression of the effects on goods vehicle traffic. The same approach was used for motorcycles for comparison purposes.

The percentages shown for each vehicle class (LGV, HGV etc.) show the proportion against overall traffic volumes (including cyclists). For example, in August 2020, LGVs made up 13.46% of the average weekday traffic.

Table 3: Goods vehicle volumes on internal roads

Weekly (5-day total) Volumes	LGV No. Aug 2020	LGV % Aug 2020	HGV No. Aug 2020	HGV % Aug 2020	LGV No. Sept 2021	LGV % Sept 2021	HGV No. Sept 2021	HGV % Sept 2021	LGV Change in Proportion	HGV Change in Proportion
Bowling Green Lane	1,064	13.46%	8	0.10%	676	10.21%	11	0.17%	-3.25%	0.06%
Woodbridge Street	78	12.13%	0	0.00%	200	15.99%	0	0.00%	3.86%	0.00%
Sekforde Street	148	10.16%	0	0.00%	302	16.05%	0	0.00%	5.88%	0.00%
Clerkenwell Green south	499	13.62%	4	0.11%	425	19.68%	1	0.02%	6.06%	-0.09%
Clerkenwell Green west	722	14.27%	8	0.16%	799	12.62%	10	0.16%	-1.65%	0.00%
Clerkenwell Close	213	14.33%	0	0.00%	341	22.95%	1	0.04%	8.61%	0.04%
Overall	2724	13.00%	20	0.06%	2743	16.25%	23	0.07%	3.25%	0.00%

Table 4: Motorcycle volumes on internal roads

Weekday Daily Averages	M/C No. Aug 2020	M/C % Aug 2020	M/C No. Sept 2021	M/C % Sept 2021	M/C Change in Proportion
Bowling Green Lane	479	6.06%	357	5.39%	-0.67%
Woodbridge Street	44	6.84%	107	8.55%	1.71%
Sekforde Street	90	6.18%	127	6.75%	0.57%
Clerkenwell Green south	271	7.40%	235	5.61%	-1.79%
Clerkenwell Green west	364	7.20%	442	6.98%	-0.21%
Clerkenwell Close	79	5.32%	126	5.38%	0.06%
Overall	1327	6.50%	1394	6.44%	-0.06%

Insights: motorised traffic on internal roads

Overall, normalised motorised traffic on internal roads has decreased by 11%, however motorised traffic has increased on a number of the internal roads in both observed and normalised results, which is a negative pre-consultation outcome. The greatest decreases have been on Bowling Green Lane where there was a 44% decrease, and Clerkenwell Green South where there has been a 22% decrease. Motorised traffic has increased on the other internal roads, with the largest proportional increase occurring on Woodbridge Street, which saw a 92% increase. These increases in internal traffic volumes, alongside those on boundary roads, and the 62% increase in cycling volumes on boundary roads and 100% increase in cycling volumes on internal roads (recorded in relevant sections of this report), may reflect an overall increase in activity in this area of central London since Covid-19 restrictions have eased. These sites and some possible reasons for the change are explored in more detail below.

Woodbridge Street, Sekforde Street, Clerkenwell Green west and Clerkenwell Close

Although these four sites all saw increases in motorised traffic, it is important to note that the internal traffic volumes are relatively low, so a small change in volume results in a large percentage change. For example, the 92% increase on Woodbridge Street equates to an average of four additional vehicles per hour. Clerkenwell Green west saw the highest traffic volumes, with 888 (normalised) vehicles recorded per average day, an increase of 114 vehicles or five additional vehicles an hour. On Clerkenwell Green west it was not possible to install a suitable modal filter due to the need for bus access, and as such this road remains open to motorised traffic. As traffic has increased across the area, this has contributed to the rise in traffic on this road. However, there are plans to introduce a public realm scheme on Clerkenwell Green as consulted on in 2017 that may lead to a reduction in traffic.

There are two important external factors to the low traffic neighbourhood trial to consider that could have had an impact on the internal road travel volumes: missing bollards and a general increase in activity in central London.

Missing bollards: The effectiveness of the PFS scheme was compromised at the time of the pre-consultation counts, due to the unauthorised removal of the traffic bollards at Clerkenwell Green. Although the filter signage remains in place, the fact that the bollards have been taken without the council's permission means that motorised traffic could physically pass through the filter in question, albeit illegally. There is a camera-enforced modal filter on Corporation Row, leading to Bowling Green Lane, where there has been a 44% decrease in motorised traffic volumes. Though back in place at the time of the pre-consultation traffic counts, a bollard at the Sans Walk traffic filter was also previously removed without the council's permission. This indicates that the use of camera-enforced filters may be a more effective strategy for enforcing the PFS scheme in the face of recurring unauthorised removal of bollards.

General increase in activity: As noted above, traffic and cycling volumes have risen across the area on both boundary and internal roads the results could therefore reflect that there is a greater level of activity taking place in Clerkenwell green since Covid-19 restrictions have eased and people have returned to the office. The Clerkenwell Green area is in Central London and has a high density of office spaces.

Apparent increases in levels of people and traffic in central London since the lifting of COVID restrictions coupled with a bollard missing from one of the area's six filters has impacted the understanding of the effectiveness of the low traffic neighbourhood.

The council will replace the missing bollards or explore introducing additional traffic enforcement cameras and conduct further monitoring on the internal roads in Clerkenwell Green.

Goods Vehicles and Motorcycle volumes

Table 3 shows that the proportions of goods vehicles changed broadly in line with the overall traffic volumes. The only notable changes were a slight rise of 3.25% in Light Goods Vehicles (LGVs) on most internal roads. Two out of the six sites showed a slight decrease in the proportion of LGVs, Bowling Green Lane saw a decrease of 3.25% and Clerkenwell Green west saw a 1.65% decrease.

Table 4 shows that the proportion of motorcycles changed broadly in line with overall traffic volumes. The only notable changes were on Clerkenwell Green south and Woodbridge Street where the proportion of motorcycles decreased by 1.79% and 1.71% respectively. However overall, there was a negligible change of only 0.06% in the proportion of motorcycles across the internal roads.

Motorised traffic speeds and speeding on internal roads

Speeding is a major contributing factor to road danger, so reducing speeding is vital to making our roads safer for all.

Traffic counters measure motorised traffic speeds as well as volumes. Details about the dates and locations of the traffic volume and speed monitoring are in Appendix 9. Full speed monitoring results are available in Appendix 5. The speed limit is 20mph on all the internal roads.

Speed monitoring results have not been normalised as they are not considered to have been impacted by COVID-19 in the same way and to the same extent as traffic volumes, though speeds may settle into new patterns post-COVID-19. The results presented here are seven-day averages. The 85th percentile is used in transport monitoring to gauge changes in speeds and speeding behaviour. It is the speed at which 85% of traffic will be travelling at, or below, along a street (and therefore 15% of traffic will be travelling faster than this speed).

Results (seven-day averages, 'change in volumes' use seven-day daily averages)

Table 5: Changes in speeds on internal roads

August 2020 vs September 2021	Difference in average speed (mph)	Difference in Average Speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Bowling Green Lane	-1.76	-12%	-1.8	-10%	-44	-76%	-3%
Woodbridge Street	0.84	7%	0.52	3%	8	143%	1%
Sekforde Street	-0.49	-3%	-1	-5%	-5	-15%	-5%
Clerkenwell Green south	0.15	1%	0.1	1%	3	62%	1%
Clerkenwell Green west	-0.26	-2%	-0.4	-2%	0	1%	0%
Clerkenwell Close	-2.52	-17%	-2.4	-13%	-52	-89%	-3%
Overall	-0.67	-5%	-0.8	-5%	-91	-49%	-1%

Insights: motorised traffic speeds and speeding on internal roads

General insights

On average across the internal road sites, average speeds and the 85th percentile speed have both decreased by 5%. The proportion of vehicles speeding has shown negligible change at all sites (-1%), with the largest fall being 5% at Sekforde Street. The number of vehicles speeding has decreased on average across internal roads by 49%, which is an overall positive outcome in line with the objectives of the scheme.

There have been increases in the volume of vehicles speeding at Woodbridge Street (143%) and Clerkenwell Green south site (62%). The increase in actual volume of vehicles speeding at these locations is low compared to the percentage values, with on average eight additional vehicles speeding per day at Woodbridge Street, and three at Clerkenwell Green.

Woodbridge Street

The volume of vehicles breaking the posted 20mph speed limit has increased by 143% at Woodbridge Street, while the proportion of vehicles speeding has negligibly changed (-1%). The increase in volume of vehicles speeding may be linked to the overall increase in volume of traffic on Woodbridge Street, as discussed in the "Motorised traffic on internal roads" section. Although the number of vehicles exceeding the speed limit has increased by 143%, as an actual volume this translates to an average daily increase of 8 vehicles. The average and 85th percentile speeds have shown a negligible change (+7% and +3% respectively).

The council will continue to monitor the situation on Woodbridge Street.

Clerkenwell Green south site

The volume of vehicles breaking the posted 20mph speed limit has increased by 62% at Clerkenwell Green south site, while the proportion of vehicles speeding has changed negligibly (+1%). This percentage increase translates to an average increase of around 3 vehicles per day driving above the posted speed limit. The average and 85th percentile speeds have also shown negligible changes (+1% each). The council will continue to monitor the situation.

Motorised traffic on boundary roads

The council's analysis of the impact of PFS area schemes on boundary roads (i.e. the roads that go around the PFS area) draws on monitoring results from traffic counts (volumes), smart congestion monitoring, and bus journey times.

This monitoring report provides data and insights relating to the Clerkenwell Green PFS trial by comparing data from before implementation in August 2020 to data collected twelve months after implementation, in September 2021. The exception to this is Clerkenwell Road, as set out in the "Traffic counts approach" section. Clerkenwell Road data is set out in Table 7.

The data for Rosebery Avenue is also presented in a separate table (Table 8) and is not included in the overall boundary roads average. This is because the location on Rosebery Avenue where traffic counts took place is not on the boundary of Clerkenwell Green PFS area. This counter on Rosebery Avenue was located further north, beyond the boundary section, in order to monitor for any wider impacts on the northern section of Rosebery Avenue in relation to the Clerkenwell Green PFS. The Skinner Street counter is expected to pick up any traffic changes on the section of Rosebery Avenue that borders the Clerkenwell Green PFS (between Farringdon Road and Tysoe Street).

It is important to consider all these results in the context of other external factors which could be contributing towards the results. For example, the Amwell low traffic neighbourhood, delivered shortly after the Clerkenwell Green low traffic neighbourhood, shares a boundary road with Clerkenwell Green. It is therefore not possible to separate out the impacts this adjacent LTN may be having on traffic on this boundary road. A more detailed analysis is in the insights section on "motorised traffic on boundary roads".

Motorised traffic volumes on boundary roads

Results (seven-day daily averages)

Table 6: Motorised traffic volumes on boundary roads (seven-day daily averages)

	Observed- Aug 2020	Normalised- Aug 2020	Observed - Sept 2021	Normalised - Sept 2021	Difference	Difference Normalised	Difference Normalised %
Skinner Street	3,593	3,844	4,436	4,629	843	785	20%
St John Street	2,593	2,775	3,953	4,125	1,360	1,351	49%
Farringdon Lane	2,434	2,604	3,859	4,027	1,425	1,422	55%
Overall	8,620	9,223	12,248	12,781	3,628	3,557	39%

Table 7: Motorised traffic volumes on Clerkenwell Road

	Observed - March 2019	Normalised - March 2019	Observed - Sept 2021	Normalised - Sept 2021	Difference	Difference Normalised	Difference normalised (%)
Clerkenwell Road* (single day AM &PM peaks only)	7,282	7,282	6,077	6,341	-1,205	-941	-13%

* As set out under the "Traffic counts approach" section, Clerkenwell Road uses a different baseline. Due to changes in nearby council transport projects, no baseline counts were taken in August 2020. Therefore, the Clerkenwell Green baseline uses turning counts from Thursday March 28th 2019, which only cover the AM and PM peak traffic volumes on this day. The site was included in the pre-consultation counts, which used seven-day ATCs. In this report, the comparison for Clerkenwell Road extracts AM and PM peak totals from the Thursday of pre-consultation repeats, collected in September 2021. Clerkenwell Road is not included in the overall boundary road calculations because of the data type and collection differences from the other boundary roads.

Table 8: Motorised traffic volumes on Rosebery Avenue

	August 2020 observed	August 2020 normalised	September 2021 observed	September 2021 normalised	Difference observed	Difference normalised	Difference normalised (%)
Rosebery Avenue**	9,017	9,649	9,238	9,640	221	-9	0%

** The data for Rosebery Avenue is presented in a separate table and is not included in the overall boundary roads average. This is because the location on Rosebery Avenue where traffic counts took place is not actually on the boundary of Clerkenwell Green PFS area, as set out in the "Traffic Counts Approach" section.

Goods Vehicle volumes on boundary roads

Results (5- day average total volumes)

LGV stands for Light Goods Vehicle. This is defined as a goods vehicle or bus with two, three or four axles. HGV stands for Heavy Goods Vehicle. This is defined as any articulated vehicle, with three or more axles.

The results shown are for five day total weekday volumes, excluding weekends. This is because goods vehicle traffic is generally less at the weekends, so the weekday data more accurately reflects the effects of goods vehicle traffic. The same approach was used for motorcycles for comparison purposes

The percentages shown for each vehicle class (LGV, HGV etc.) show the proportion against overall traffic volumes (including cyclists). For example, in August 2020, LGVs made up 17.23% of the average weekday traffic.

Table 9: Goods vehicle volumes on boundary roads

Weekday Daily Averages	LGV No. Aug 2020	LGV % Aug 2020	HGV No. Aug 2020	HGV % Aug 2020	LGV No. Sept 2021	LGV % Sept 2021	HGV No. Sept 2021	HGV % Sept 2021	LGV Change in Proportion	HGV Change in Proportion
Skinner Street	3726	16.25%	39	0.17%	4310	15.06%	91	0.32%	-1.20%	0.15%
St John Street	3037	16.64%	60	0.33%	4217	15.42%	115	0.42%	-1.23%	0.09%
Farringdon Lane	2807	18.78%	41	0.27%	4004	16.76%	116	0.49%	-2.02%	0.21%
Overall	9570	17.23%	140	0.26%	12531	15.74%	322	0.41%	-1.48%	0.15%

Table 10: Goods vehicle volumes on Rosebery Avenue

	LGV No. Aug 2020	LGV % Aug 2020	HGV No. Aug 2020	HGV % Aug 2020	LGV No. Sept 2021	LGV % Sept 2021	HGV No. Sept 2021	HGV % Sept 2021	LGV Change in Proportion	HGV Change in Proportion
Rosebery Avenue *	10147	18.58%	532	0.97%	8570	14.73%	517	0.89%	-3.85%	-0.09%

Table 11: Motorcycle volumes on boundary roads

Weekday Daily Averages	M/C No. Aug 2020	M/C % Aug 2020	M/C No. Sept 2021	M/C % Sept 2021	M/C Change in Proportion
Skinner Street	1366	5.96%	1902	6.64%	0.68%
St John Street	1354	7.42%	1753	6.41%	-1.01%
Farringdon Lane	1202	8.04%	1820	7.62%	-0.42%
Overall	3922	7.14%	5475	6.89%	-0.25%

Table 12: Motorcycle volumes on Rosebery Avenue

Weekday Daily Averages	M/C No. Aug 2020	M/C % Aug 2020	M/C No. Sept 2021	M/C % Sept 2021	M/C Change in Proportion
Rosebery Avenue*	3223	5.90%	3493	6.00%	0.10%

* The data for Rosebery Avenue is not included in the overall boundary roads totals. This is because the location on Rosebery Avenue where traffic counts took place is not actually on the boundary of Clerkenwell Green PFS area, which is also related to changes in nearby council traffic projects, as set out in the "Traffic counts approach" section.

The changes in proportions of goods vehicles were minimal, between 1.5% and 0.0%. There was a slight fall in the overall proportion of Light Goods Vehicles across all of the count sites.

Bus journey times on boundary roads

TfL monitors bus journey times across its network, which can add an additional layer of understanding about the impacts of transport schemes. Bus journey times around the Clerkenwell PFS area have been monitored.

Bus journey time monitoring focused on four main roads, described as bi-directional corridors, which include journey times for multiple routes. The main roads and bus route numbers are listed below:

- Clerkenwell Road (243, 55)
- Farringdon Road (63, 341, 40)
- Rosebery Avenue (19, 38, 341)
- St John Street (153)

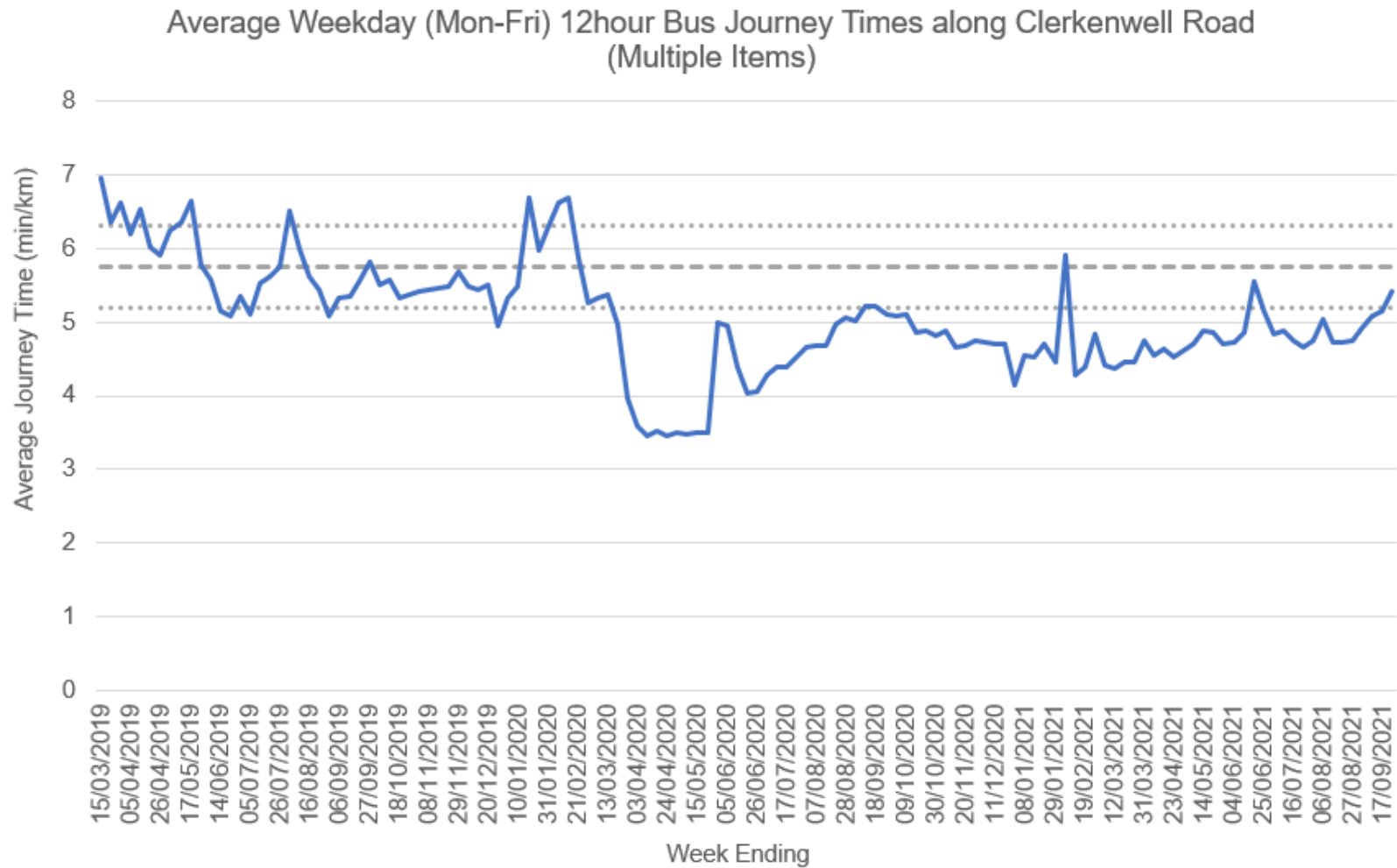
The main bus routes in the vicinity of the Clerkenwell PFS use the boundary roads: Clerkenwell Road, Farringdon Road, Rosebery Avenue and St John Street.

Weekly iBus data has been used for this analysis. This gives weekday (Monday to Friday, excluding bank holidays) average journey times by route, stop-to-stop link and peak periods. The AM peak is 7am-10am, Inter-peak 10am-4pm and PM peak 4pm-7pm. The data also provides 12hour 7am-7pm timings. These journey times exclude dwell times at stops.

TfL's methodology has been used to analyse the results of the iBus data. Journey times results have first been summarised by route, by taking the total journey time across stop-to-stop links along the corridor and dividing by the length of these links, to give a minutes per kilometre figure. Corridor level figures have been found by taking a weighted average across the route level figures, weighted by the route frequency. The data shows the corridor averages each week but also shows thresholds ('Baseline Upper' & 'Baseline Lower'). These thresholds have been found by taking the mean journey time plus or minus one standard deviation during the pre-COVID-19 baseline period (11 March 2019 – 13 March 2020). This allows for a reasonable amount of week-to-week variation but gives a threshold above which minutes per km figures would be deemed above "normal".

The results are shown in Graph 1 to Graph 4 below. The dashed lines indicate the baseline threshold, and the blue line indicates the average journey times, on a weekly basis.

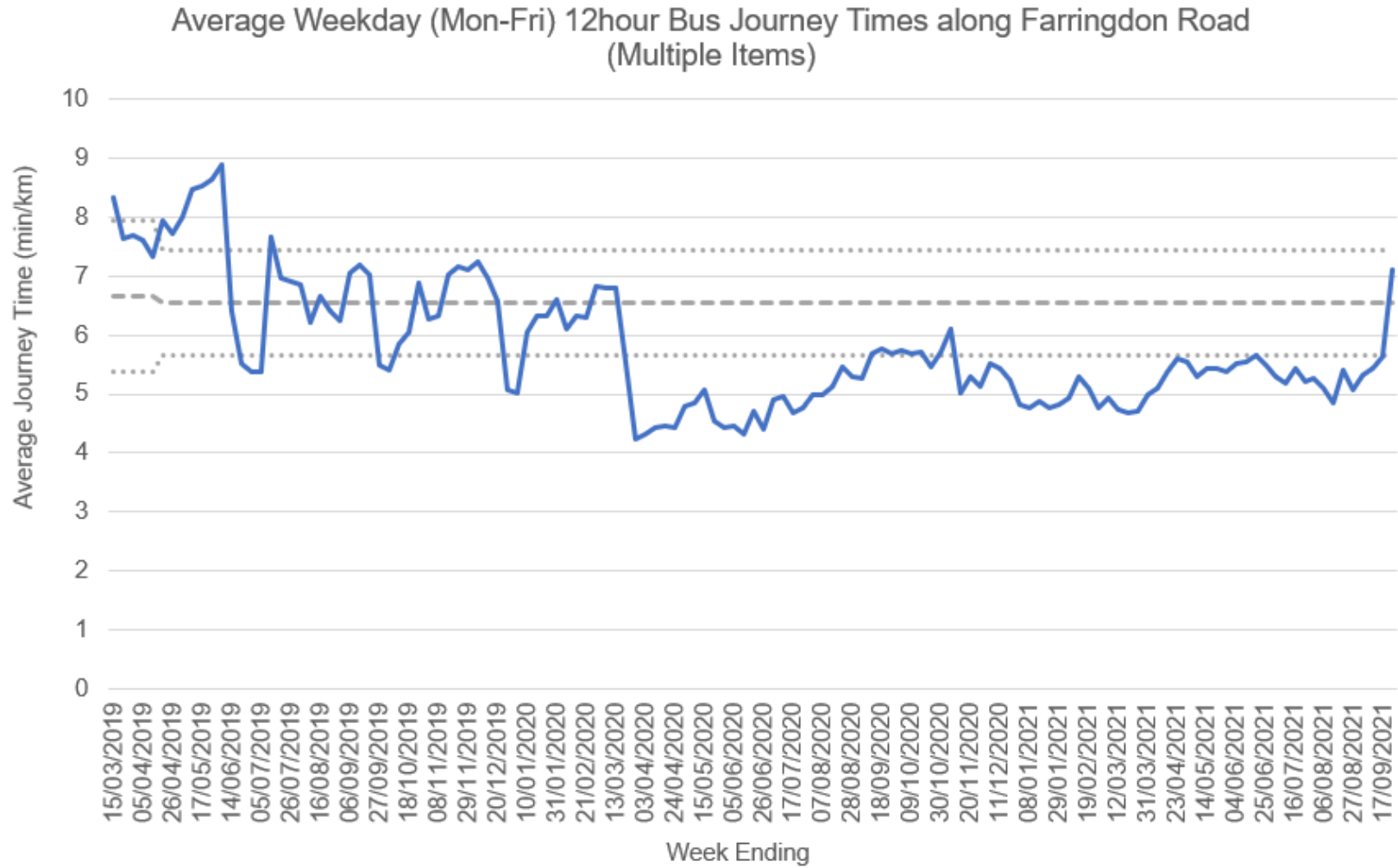
Graph 1: Clerkenwell Road



Blue line – average bus journey time.

Dashed lines – baseline upper and lower thresholds.

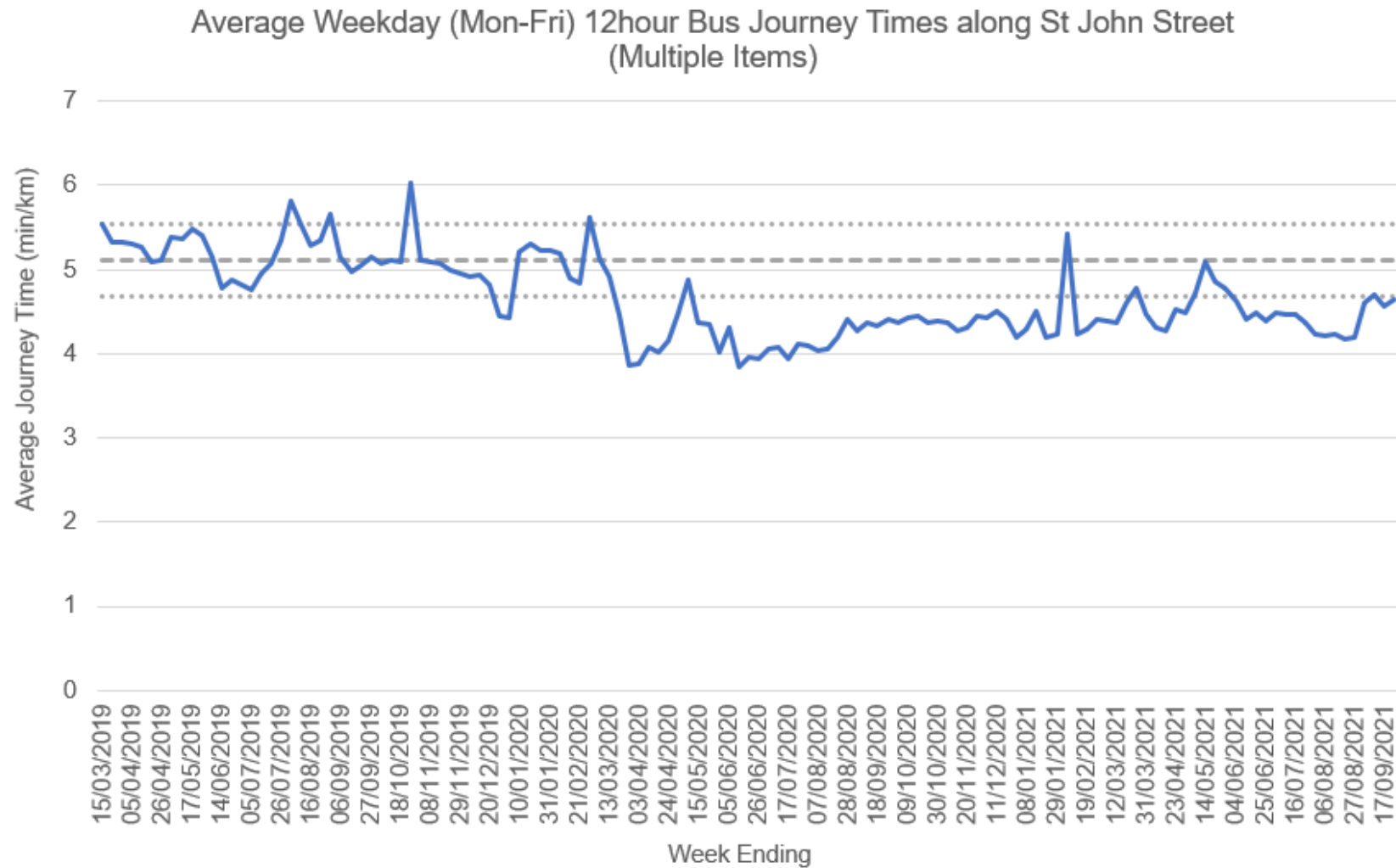
Graph 2: Farringdon Road



Blue line – average bus journey time.

Dashed lines – baseline upper and lower thresholds.

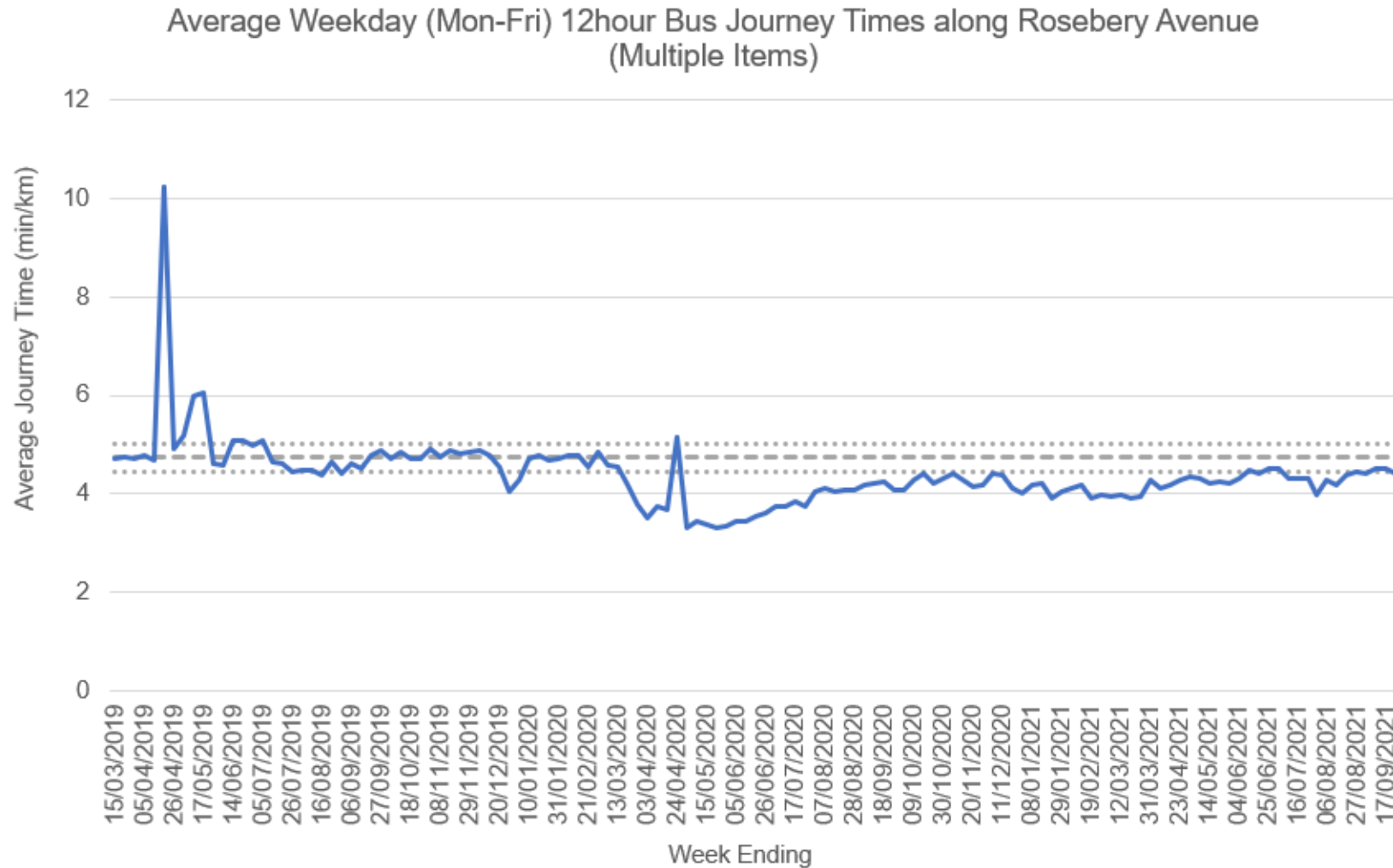
Graph 3: St John Street



Blue line – average bus journey time.

Dashed lines – baseline upper and lower thresholds.

Graph 4: Rosebery Avenue



Blue line – average bus journey time.

Dashed lines – baseline upper and lower thresholds.

Clerkenwell Road – Bus Journey Times

Between March 2019 and January 2020, bus journey times were around five minutes, roughly two minutes quicker than journey times around March-May 2019. This increased around December to January 2020 to almost seven minutes, before the LTN was implemented in September 2020. Between March 2020 and September 2021 there have been a series of peaks and troughs below the average journey time, likely due to the COVID-19 travel restrictions. From this point, journey times dropped as low as three and a half minutes in March-April 2020 and fluctuated to a peak of almost six minutes in January 2021, in line with the average across the whole survey period. The increase in journey times in 2021 is likely to be associated with the relaxation of lockdown, and the works at Old Street roundabout that may have affected the area.

Looking at the directional flow, journey times fluctuated more for the eastbound direction than the westbound direction, where average journey times were more even, with a notable fluctuation only identified between March to June 2020. Delays were more pronounced in the AM peak than the PM peak.

Farringdon Road – Bus Journey Times

Graph 2 shows a notable decrease in journey times on Farringdon Road during the first COVID-19 lockdown in March 2020. Journey times increased again in June 2020 with a large increase peaking around November 2020, however this was still around half a minute below the average journey time. This may be due to a mixture of ongoing roadworks or schools reopening after lockdown. The journey times fell to below average from January 2021 and journey times in September 2021 appeared to be returning to 2019 levels. Delays were similar in both directions but were more pronounced in the PM peak period.

Looking at directional flow, pre-lockdown journey times for northbound movements fluctuated as high as around eight minutes but remained around the average journey time for Farringdon Road up until the March 2020 lockdown. Southbound movements showed notable fluctuations falling as low as four to five minutes for the same period, and displayed a very similar trend in journey times as northbound movements post by remaining below the average journey time until September.

St John Street – Bus Journey Times

Journey times fluctuated around the average of five minutes, up until the start of the lockdown from March to mid-May 2020, then decreased to around four minutes. A few spikes were identified, however the overall post-lockdown journey time data fluctuated less dramatically than pre-implementation of the LTN.

From March 2021, journey times have generally remained below the overall average of five minutes, with one spike above the overall average in January 2021. Delays appeared to be spread evenly with northbound traffic maintaining journey times closer to the overall average. The profiles for the AM and PM peaks were similar to the 12-hour graph.

Rosebery Avenue – Bus Journey Times

Journey times maintained relatively stable around the overall average of four to five minutes. A notable increase in journey time was recorded in April 2019, before returning to near the overall average by May 2019, prior to the implementation of the LTN in September 2020. The spike in April 2019 recorded an average journey time of sixteen minutes, around eleven minutes higher than the overall average. For comparison, southwest bound movements peaked at six minutes for the same month which is only around two minutes above the overall average.

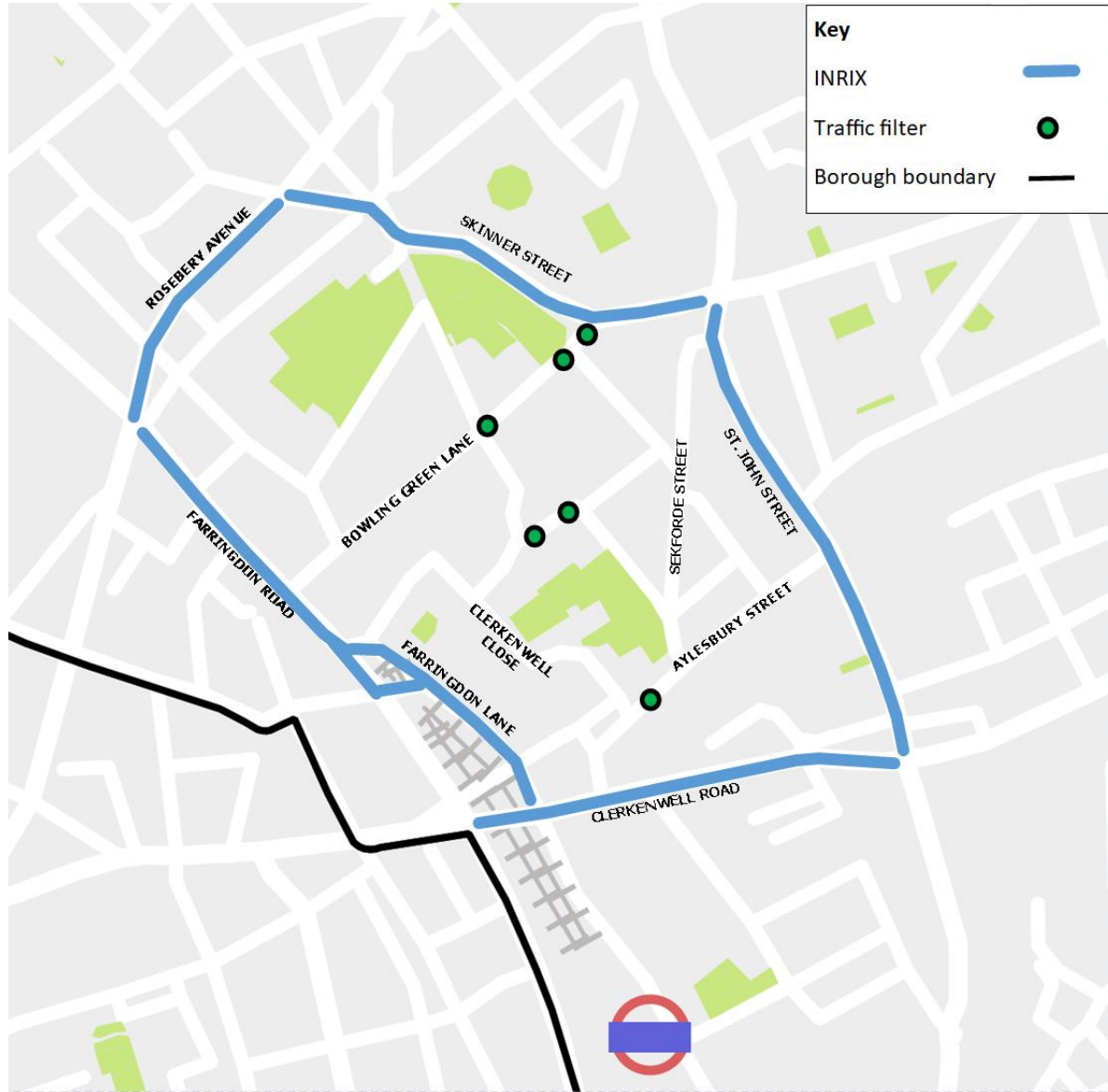
Journey times decreased notably at the start of the lockdown (March to mid-May 2020), then increased gradually and fluctuated by around half a minute until September 2021. From March 2021, journey times have generally remained below the overall average of four to five minutes. Delays appeared to be spread evenly in both directions and throughout the day; the profiles for the peak periods were similar to the 12-hour graph.

Overall, these results suggest that the people-friendly streets scheme in Clerkenwell Green has not identifiably impacted bus journey times.

Motorised traffic travel times on boundary roads

Islington Council has procured a smart traffic analysis system called INRIX (refer to the glossary for a fuller definition) that provides more continuous monitoring of motorised traffic speed data to measure average travel times. These results have not been normalised as they are not considered to have been impacted by COVID-19 in the same way and to the same extent as traffic volumes, though speeds may settle into new patterns post-COVID-19. The INRIX capture areas for the roads that can be seen in Map 5. The results are presented in minutes and seconds (mm:ss).

Map 5: Area of roads included in INRIX analysis



Results

A note on interpreting the results: Table 13 shows that in August 2020 during the AM peak hours (7am – 10am), it took an average of one minute and 18 seconds to travel along St John Street between the junction with Clerkenwell Road, and the junction with Skinner Street and Percival Street. In September 2021, it took an average of one minute and twenty-four seconds to travel the same distance. That is an average six seconds more in September 2021 than in August 2020.

Table 13: St John Street (both directions)

	Aug-20 (mm:ss)	Sept-21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:18	01:24	00:06
Weekday PM peak average (1600 – 1900)	01:13	01:20	00:07
7 day 0700 - 1900 average	01:18	01:23	00:05

Table 14: St John Street Northbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:19	01:31	00:12
Weekday PM peak average (1600 – 1900)	01:14	01:26	00:12
7 day 0700 - 1900 average	01:19	01:30	00:11

Table 15: St John Street Southbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:18	01:18	00:00
Weekday PM peak average (1600 – 1900)	01:13	01:15	00:02
7 day 0700 - 1900 average	01:17	01:16	-00:01

Table 16: Skinner Street both directions

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:02	01:05	00:03
Weekday PM peak average (1600 – 1900)	01:03	01:03	00:00
7 day 0700 - 1900 average	01:02	01:03	00:01

Table 17: Skinner Street Eastbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:04	01:05	00:01
Weekday PM peak average (1600 – 1900)	01:03	01:03	00:00
7 day 0700 - 1900 average	01:03	01:04	00:01

Table 18: Skinner Street Westbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:00	01:05	00:05
Weekday PM peak average (1600 – 1900)	01:03	01:03	00:00
7 day 0700 - 1900 average	01:01	01:02	00:01

Table 19: Clerkenwell Road both directions

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:07	00:57	00:11
Weekday PM peak average (1600 – 1900)	00:57	00:55	00:08
7 day 0700 - 1900 average	00:58	00:54	00:10

Table 20: Clerkenwell Road Eastbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:58	01:10	00:12
Weekday PM peak average (1600 – 1900)	00:55	01:05	00:11
7 day 0700 - 1900 average	00:54	01:06	00:12

Table 21: Clerkenwell Road Westbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:16	01:25	00:09
Weekday PM peak average (1600 – 1900)	01:00	01:05	00:06
7 day 0700 - 1900 average	01:02	01:10	00:08

Table 22: Rosebery Avenue both directions

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:40	00:55	00:15
Weekday PM peak average (1600 – 1900)	00:42	00:48	00:06
7 day 0700 - 1900 average	00:39	00:48	00:10

Table 23: Rosebery Avenue North-eastbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:38	00:55	00:17
Weekday PM peak average (1600 – 1900)	00:42	00:48	00:06
7 day 0700 - 1900 average	00:38	00:48	00:11

Table 24: Rosebery Avenue South-westbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:42	00:55	00:13
Weekday PM peak average (1600 – 1900)	00:41	00:48	00:07
7 day 0700 - 1900 average	00:40	00:48	00:08

Table 25: Farringdon Lane & Farringdon Road both directions

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:45	02:12	00:26
Weekday PM peak average (1600 – 1900)	01:34	01:50	00:16
7 day 0700 - 1900 average	01:34	01:54	00:20

Table 26: Farringdon Lane & Farringdon Road North-westbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:43	02:12	00:30
Weekday PM peak average (1600 – 1900)	01:38	01:59	00:21
7 day 0700 - 1900 average	01:37	01:58	00:21

Table 27: Farringdon Lane & Farringdon Road South-eastbound

	Aug-20 (mm:ss)	Sept -21 (mm:ss)	Aug 2020 - Sept 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:48	02:11	00:23
Weekday PM peak average (1600 – 1900)	01:30	01:40	00:10
7 day 0700 - 1900 average	01:31	01:49	00:18

Insights: motorised traffic on boundary roads (combined monitoring)

General insights

Overall, across the boundary roads, motorised traffic volumes have increased by 39%. Despite this, average travel times along all boundary roads have shown only small increases between August 2020 and September 2021. Journey time increases have been less than 15 seconds on St John Street, Skinner Street, Clerkenwell Road, and Rosebery Avenue. There was a slightly larger increase in average journey times on Farringdon Lane and Farringdon Road of around 20 seconds, from 1:34 to 1:54 minutes. This suggests the increase in traffic volumes is not leading to a substantial increase in traffic congestion in the area. The council will continue to monitor these sites and propose mitigating measures if necessary.

In general, it has been observed that traffic volumes have risen throughout Clerkenwell Green and the surrounding areas. Traffic volumes have risen from the amounts observed in the six-month Interim Monitoring Report, when counts were taken in February 2021. The increases in boundary road traffic volumes, alongside those on internal roads, and the 62% increase in cycling volumes on boundary roads and 100% increase in cycling volumes on internal roads (recorded in relevant sections of this report), may reflect an overall increase in activity in this area of central London since Covid-19 restrictions have eased.

St John Street

St John Street has seen an increase of 49% in motorised traffic volumes. Leaving aside the general increase in traffic in this area of central London referred to above, the increase on St John Street could be caused by factors other than the Clerkenwell Green PFS trial. For example, the works to remove the Old Street roundabout were a major transport infrastructure project that may have impacted traffic flows, as drivers seek alternative north-south routes to avoid the works area (works to remove the roundabout took place from spring 2019, with the switch to make the traffic flow two-way and reduce congestion made in January 2021).

In the traffic counts that were taken on additional roads (see Appendices 7, 8 and 9), traffic increases can also be seen on St John Street to the north and south, as well on St John Street between Cowcross Street and Charterhouse Street. This increase in traffic volume along the entire length of St John Street, rather than just the section of St John Street that bounds Clerkenwell Green PFS, suggests that the increase cannot be solely attributed to the Clerkenwell Green PFS scheme and may be linked to other factors such as the Old Street roundabout works.

A directional breakdown of traffic flows shows that motorised traffic on St John Street increased by 95% in the northbound direction but

only 12% southbound (See Appendix 3 for data tables). The INRIX data shows that changes in travel times have on St John Street have been minimal. The average journey times have risen by eleven seconds for northbound traffic and fallen by one second in the southbound direction.

The council will continue to monitor this situation to follow traffic volume trends and determine if mitigation is necessary.

Skinner Street

Skinner Street has seen an increase of 20% in motorised traffic, with a 20% increase showing in the PM peak, but a 3% fall in the AM peak. A directional breakdown of traffic flows shows that motorised traffic volumes increased by 29% in the eastbound direction but only 9% in the westbound direction. (See Appendix 3 for data tables). Despite these increases in volumes, the INRIX data shows that there has been a negligible change in journey times on Skinner Street in both directions. These results suggests the increase in traffic at this time of day is not causing congestion.

Farringdon Lane

Farringdon Lane has seen an increase of 55% in motorised traffic, with similar increases in the AM and PM peaks. Despite these increases in volumes, the INRIX data shows that there has been a small increase in journey times on Farringdon Lane and Farringdon Road in both directions, with average journey times increasing from 1:34 to 1:54 minutes. These results suggest that the increase in traffic may be causing a slight increase in congestion.

Rosebery Avenue

The data for Rosebery Avenue is presented in a separate table and is not included in the overall boundary roads average. This is because the location on Rosebery Avenue where traffic counts took place is not on the boundary of Clerkenwell Green PFS area. This counter on Rosebery Avenue was located further north, beyond the boundary section, in order to monitor for any wider impacts on the northern section of Rosebery Avenue in relation to the Clerkenwell Green PFS. The Skinner Street counter is expected to pick up any traffic changes on the section of Rosebery Avenue that borders the Clerkenwell Green PFS (between Farringdon Road and Tysoe Street).

Rosebery Avenue has seen a negligible change (0%) in traffic volumes. The AM and PM peaks also showed negligible changes in motorised traffic volumes, at -1% and -7% respectively. This is encouraging considering the implementation of the Amwell PFS scheme to the north of Rosebery Avenue, which could also cause traffic to reassign to Rosebery Avenue, as it suggests any reassignment is minor and that traffic is already adjusting to these two schemes. However, as shown in the INRIX data, there has been a slight increase

in travel times on Rosebery Avenue. The 7:00am to 7:00pm (12-hour) averages show an increase of journey times from 39 seconds to 48 seconds, with similar increases in the eastbound and westbound directions.

Clerkenwell Road

Only the AM and PM peak traffic volumes can be compared for the Clerkenwell Road baseline and interim counts, for reasons explained in the "Traffic counts approach" section.

The data from the AM and PM peaks shows a moderate fall in traffic volumes (-13%) on Clerkenwell Road, with a 10% fall in the AM peak and a 15% fall in the PM peak.

Travel times have increased by a small amount (10 seconds on average) in both directions and in both peaks along Clerkenwell Road between St John Street and Farringdon Road. Clerkenwell Road is not showing any concerning changes in traffic flow or travel times.

Motorised traffic speeds and speeding on boundary roads

The traffic counts carried out also measure motorised traffic speeds. These are the same counts that have been analysed for their volume results. The details about the dates and locations of these counts are in Appendix 9. Full speed monitoring results are available in Appendix 5 (absolute speeds from baseline and interim results).

The speed limit is 20mph on all roads where counts were taken. Speed monitoring results have not been normalised. The results presented here are seven-day averages. The 85th percentile is used in transport monitoring to gauge changes in speeds and speeding behaviour. It is the speed at which 85% of traffic will be travelling at, or below, along a street (15% of traffic will be travelling faster than this speed, therefore).

Results (seven-day averages, 'change in volumes' use seven-day daily averages)

Table 28: changes in speeds on boundary roads

	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Skinner Street	-0.01	0%	-0.10	0%	531	22%	-1%
St John Street	0.07	0%	0.00	0%	586	57%	1%
Farringdon Lane	0.48	3%	0.30	1%	403	73%	2%
Overall Average	0.18	1%	0.07	0%	1519	15%	1%

Table 29: changes in speeds on Rosebery Avenue

	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th Percentile (mph)	Difference in 85th Percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Rosebery Avenue*	0.03	0%	0.20	1%	199	3%	1%

* The data for Rosebery Avenue is presented in a separate table and is not included in the overall results. This is because the location on Rosebery Avenue where traffic counts took place is not actually on the boundary of Clerkenwell Green PFS area, which is also related to changes in nearby council traffic projects, as set out in the "Traffic counts approach" section.

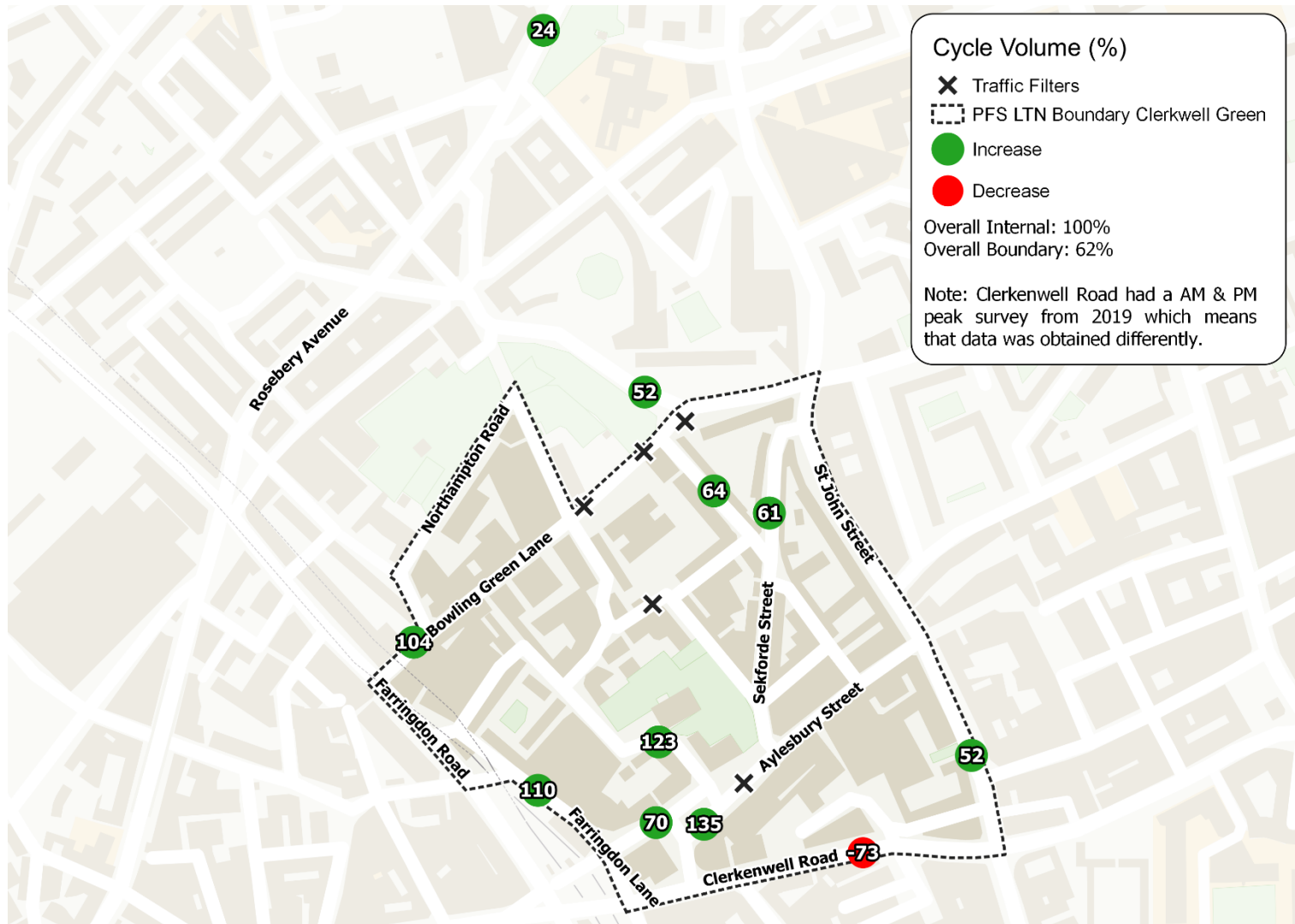
Insights: motorised traffic speeds and speeding on boundary roads

General insights

On average across the boundary road sites, average speeds and the proportion of vehicles speeding have all shown a negligible change. There has been an increase in the volume of motorised vehicles exceeding the speed limit, however this is in line with the rise in overall traffic volumes. So as there are more vehicles using the boundary roads, a larger number are exceeding the speed limit, but the change in the proportion of vehicles speeding is negligible (1% overall).

Cycling volumes on internal and boundary roads

Map 6: Percentage change in cycling volumes (seven-day daily averages)

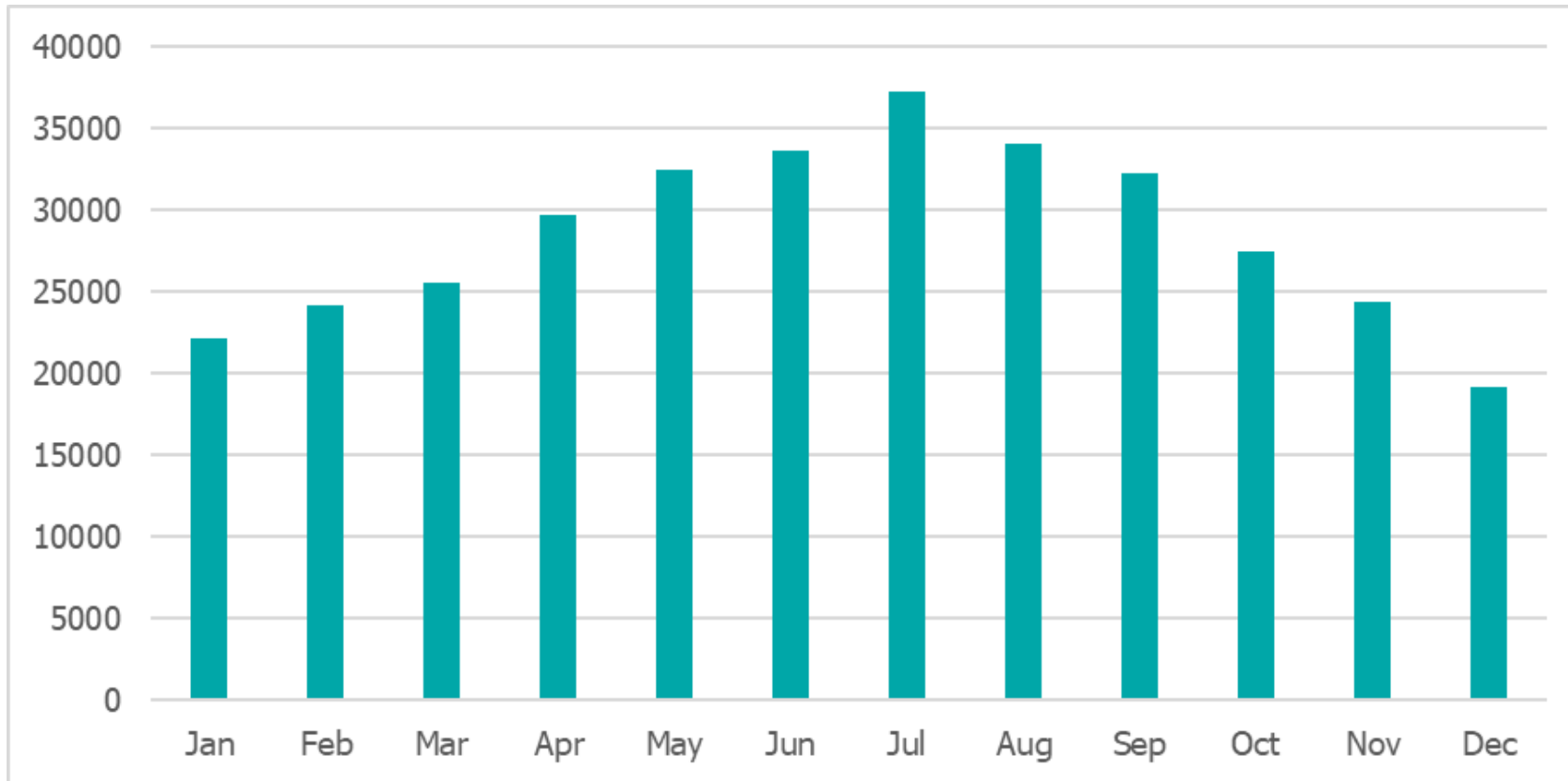


We have not normalised cycling figures for COVID-19 due to the lack of an available source that encompasses all cycle users, and because there are likely at least two key variables impacting these results: COVID-19 disruption, and seasonal variation.

Cycling levels are impacted by seasonal weather change including temperature and rainfall; for example, there is normally much more cycling participation in June than in November. There are several interrelated factors that can influence the impact the seasonal weather variation has on cycling levels, and weather can still vary within a season. To illustrate the impact weather can have upon cycling behaviours, one 2011 study found a doubling in temperature (on the Celsius scale) could lead a 43 – 50% increase in cycling levels, before having a negative impact if too high ([Miranda-Moreno and Nosal, 2011](#)).

Graph 5 demonstrates the seasonal variation in cycling. For example, in 2019 the levels of Santander Cycle hires in November were on average 28% lower than in June. As this report compares results from August 2020 and September 2021, seasonal weather variations between the datasets are likely to be minimal.

Graph 5: Monthly average Santander hire trend in 2019 showing seasonal difference in cycling levels



Cycling volumes on internal roads

Results (seven-day daily averages)

Table 30: Pedal cycles volumes on internal roads

	7-day Daily Averages – Aug 2020	7-day Daily Averages – Sept 2021	Difference (%)
Bowling Green Lane	242	493	104%
Woodbridge Street	33	54	64%
Sekforde Street	63	101	61%
Clerkenwell Green south	152	357	135%
Clerkenwell Green west	136	230	70%
Clerkenwell Close	53	118	123%
Overall internal	678	1,354	100%

Cycling volumes on boundary roads

Results (seven-day daily averages).

Table 31: Pedal cycles volumes on boundary roads

	7-day Daily Averages – August 2020	7-day Daily Averages – September 2021	Difference (%)
Skinner Street	429	651	52%
St John Street nr Great Sutton	633	965	52%
Farringdon Lane	230	483	110%
Overall boundary	1,292	2,099	62%

Table 32: Pedal cycles volumes on Clerkenwell Road

	7-day Daily Averages – March 2019	7-day Daily Averages – September 2021	Difference (%)
Clerkenwell Road* (AM &PM peaks only)	4,730	1,292	-73%

*As set out in the 'Traffic Counts Approach' section, Clerkenwell Road uses different data from the other sites, and is therefore analysed separately. The data used is only for the AM and PM peaks on a Thursday from March 2019 and September 2021.

Table 33: Pedal cycles volumes on Rosebery Avenue

Boundary Road Location	August 2020	September 2021	Difference (%)
Rosebery Avenue**	1,630	2,025	24%

** The data for Rosebery Avenue is presented in a separate table and is not included in the overall boundary roads average. This is because the location on Rosebery Avenue where traffic counts took place is not actually on the boundary of Clerkenwell Green PFS area, which is also related to changes in nearby council traffic projects, as set out in the "Traffic counts approach" section.

Insights: Cycling volumes on internal and boundary roads (combined)

On average across internal roads, cycling has increased by 100%, which is a positive result consistent with the scheme's objectives. Cycle volumes have increased from 678 to 1,354 per average weekday. This may be related to the overall rise in traffic volumes that have been observed throughout Clerkenwell Green and the boundary roads.

There was also an increase in cycling observed on the boundary roads, with a 62% increase in cycle volumes observed between August 2020 and September 2021. This represents an average daily increase from 1,292 to 2,099 cyclists on the boundary roads. On Rosebery Avenue cycle traffic has increased by 24%.

There was a substantial fall in cyclist numbers on Clerkenwell Road, by 73% from March 2019 to 1,292 in September 2021.

Although ATCs are very accurate (as explained in Appendix 9), if a cycle, or multiple cycles pass the counter at the same time as a motorised vehicle, it is possible for the counter to not register a cycle. This is more likely to occur on roads with higher volumes of motorised traffic, such as the boundary roads.

Pedestrian Counts at Clerkenwell Green

Pedestrian counts were taken at Clerkenwell Green in the same periods as the PFS area baseline and interim traffic counts. They use the same origin locations as counts that were taken in autumn 2016 on the basis of research for the Clerkenwell Green public realm transformation scheme. 'Origin locations' are the points where pedestrians entered Clerkenwell Green, and those used for these surveys are shown in Map 7

Pedestrian counts were taken during the AM (0700-1000), Inter (1200-1400), and PM (1600-1900) peaks on both Thursday and Saturday during the weeks the baseline and pre-consultation counts were taken; this was Thursday 20 August 2020 and Saturday 22 August 2020 during the baseline counts, and Thursday 9 September 2021 and Saturday 11 September 2021 during the pre-consultation counts.

Table 27 shows the volume and percentage difference of pedestrians entering Clerkenwell Green from each origin point between the counts taken in August 2020 and September 2021. Please see Appendix 6 for the data tables of pedestrian counts by peak.

Please note that pedal cycles and electric scooters are not included in pedestrian counts. Mobility scooters are included.

Map 7: Pedestrian counts on Clerkenwell Green



Table 34: Change and percentage difference in number of pedestrians at Clerkenwell Green between August 2020 and September 2021 (Thursday)

Origin	Thursday AM	Thursday AM %	Thursday Inter	Thursday Inter %	Thursday PM	Thursday PM %
A	35	55%	83	98%	149	70%
B	165	91%	342	182%	695	193%
C	812	258%	207	199%	320	168%
D	163	163%	174	138%	204	115%
Total	1175	178%	806	160%	1368	145%

Table 35: Change and percentage change in number of pedestrians at Clerkenwell Green between August 2020 and September 2021 (Saturday)

Origin	Saturday AM	Saturday AM %	Saturday Inter	Saturday Inter %	Saturday PM	Saturday PM %
A	11	46%	50	81%	-29	-16%
B	46	67%	79	56%	109	52%
C	31	50%	74	86%	62	48%
D	-1	-2%	14	9%	-135	-41%
Total	87	42%	217	50%	7	1%

Insights: pedestrians at Clerkenwell Green

The number of pedestrians at Clerkenwell Green has increased during all Thursday and Saturday periods. Overall, between August 2020 and September 2021, pedestrian volumes have increased by 259% on Thursday and 121% on Saturday (looking at AM, PM and Inter-peak periods).

The factors that may have contributed to the increase in pedestrian numbers are the implementation of the people-friendly streets scheme, the good weather in September, and the removal of COVID-related restrictions.

Air Quality

Air quality refers to the air around us, how clean it is and how many pollutants (harmful chemicals or substances) it contains. The more pollutants the air contains the more air pollution there is and the worse the air quality is. Poor air quality is a concern as air pollution can impact health. The two main pollutants of concern that we monitor are:

Particulate matter – of 10µm or less in size (PM₁₀) – tiny bits of solid material made of a range of substances suspended in the air.

Nitrogen dioxide (NO₂) – one of a group of gases called nitrogen oxides.

There are three types of monitors in use, which will give slightly different data:

Automatic monitors: monitor NO₂ and PM₁₀ 24 hours a day at two locations in the borough. These are our most accurate monitors.

Diffusion tubes: provide monthly readings of NO₂. While not as accurate as the automatic monitors they can be more widely deployed to provide trends over a larger area and time period and are a nationally approved monitoring technique.

Sensors: these sensors can monitor a range of pollutants in a continuous manner like the automatic monitors, however they can have more uncertainty with regard to accuracy and these monitors have not gone through the same quality control process as our other monitors.

Islington's air quality sites are classified based on their location using [Defra guidance](#), but are referred to in these PFS monitoring reports using PFS terminology which has required the addition of a further category. According to Defra, "Roadside sites" are those within one to five metres of a busy road. In the PFS monitoring reports, roadside monitoring equates to boundary road sites. According to Defra, "Urban background sites" are those in an urban location but more distanced from traffic sources. For the PFS monitoring we have further split the urban background results into sites on internal roadsides and sites away from roads. These categorisations apply to the PFS area and borough-wide. We are looking to make monthly results for individual sites available on the Council website as soon as possible.

The long-term sites in Islington consist of nine roadside diffusion tubes, ten background urban diffusion tubes, one automatic main road site and one automatic background urban site. One of the main road diffusion tubes was moved in 2019 and is not being included in PFS monitoring using this time period. More details of these sites can be [viewed in our annual report](#).

The air quality monitoring sites in the Clerkenwell Green area are listed in Appendix 11, with details about type and if they have been added as part of the PFS programme or were pre-existing. The long-term sites that are being used for comparison work in this Clerkenwell Green report consist of eight main road diffusion tubes and ten background urban diffusion tubes, as the sensor data we have for this area does not have enough data to be meaningfully analysed at this stage.

For Clerkenwell Green, there are air quality monitoring sites for internal roads and boundary roads, but there are no off-street monitoring sites as in some of the other PFS studies.

Methodology

Time period of study

Air quality varies over time due to a variety of factors, including weather. It is therefore important to look at trends over a longer period of time to identify real changes in air quality caused by this scheme. It is preferable to compare a year's worth of data to account for seasonal variation.

However, at some sites we do not have a years' worth of "before" scheme data. The newer monitoring sites are therefore less reliable to provide comparison data, as the pre-scheme monitoring period is too short. However, the ultimate goal of our air quality strategy is to reduce air pollution as much as possible, and certainly to within legal limits. As such, the newer sites will be used to monitor if air quality is at legal levels in and of itself.

Results: air quality diffusion tubes

The results shown in this section use NO₂ data from diffusion tubes only, as the sensors in Clerkenwell Green do not have any before-scheme monitoring. It was therefore not possible to provide results for PM₁₀ for Clerkenwell Green.

Data has been collected since the people-friendly streets scheme was installed in September 2020, up until July 2021 (Post Scheme). This Post scheme data has been compared to the same period before the scheme September 2019 to August 2020 (Pre-Scheme). The pollution levels in these periods, particularly Pre-Scheme, are likely to have been impacted by COVID-19. [Studies](#) into the impacts of lockdown on air pollution, by Defra, for example, show lower than average levels of the pollutant NO₂ with the first lockdown.

The values in this section show the average results for all monitors in each category where the data is available, with figures rounded to the nearest whole number. Because of the coarse nature of the data, the measured differences may not correspond precisely to the observed NO₂ values.

To improve accuracy levels of diffusion tubes it is necessary to bias correct the results based upon local or national collocation studies with the more accurate reference monitors. It is also necessary to calculate the data capture, and if this is less than 75%, the results should be annualised. More information on this process can be found in the council's annual air quality report. The results from 2021 have yet to be published as they require a full years' data, so the 2021 data presented here is in "raw" format and may change once the bias adjustment values are made available.

Table 36: (Boundary roads) NO₂ levels in Clerkenwell Green and borough long term diffusion tube sites

	Pre Scheme Year NO₂ (µg/m³)	Post Scheme Year NO₂ (µg/m³)	Pre Scheme compared Post Scheme Year (µg/ m³)	Pre Scheme compared Post Scheme Year (% change)
Clerkenwell Green	32	30	-2	-4%
Whole borough long term sites	32	33	1	2%

This includes eight monitoring locations for the whole borough long term sites for each time period. In Clerkenwell Green there are two monitoring sites annualised for periods of missing data and three monitoring sites for Post Scheme.

Table 37: (Internal roads) NO₂ levels in Clerkenwell Green and borough long term diffusion tube sites

	Pre Scheme Year NO₂ (µg/m³)	Post Scheme Year NO₂ (µg/m³)	Pre Scheme compared Post Scheme Year (µg/ m³)	Pre Scheme compared Post Scheme Year (% change)
Clerkenwell Green	26	25	-1	-3%
Whole Borough long term sites	22	23	1	7%

This includes five monitoring sites in Clerkenwell Green for Pre and Post Scheme. There are six monitoring locations for the whole borough long term sites for each time period.

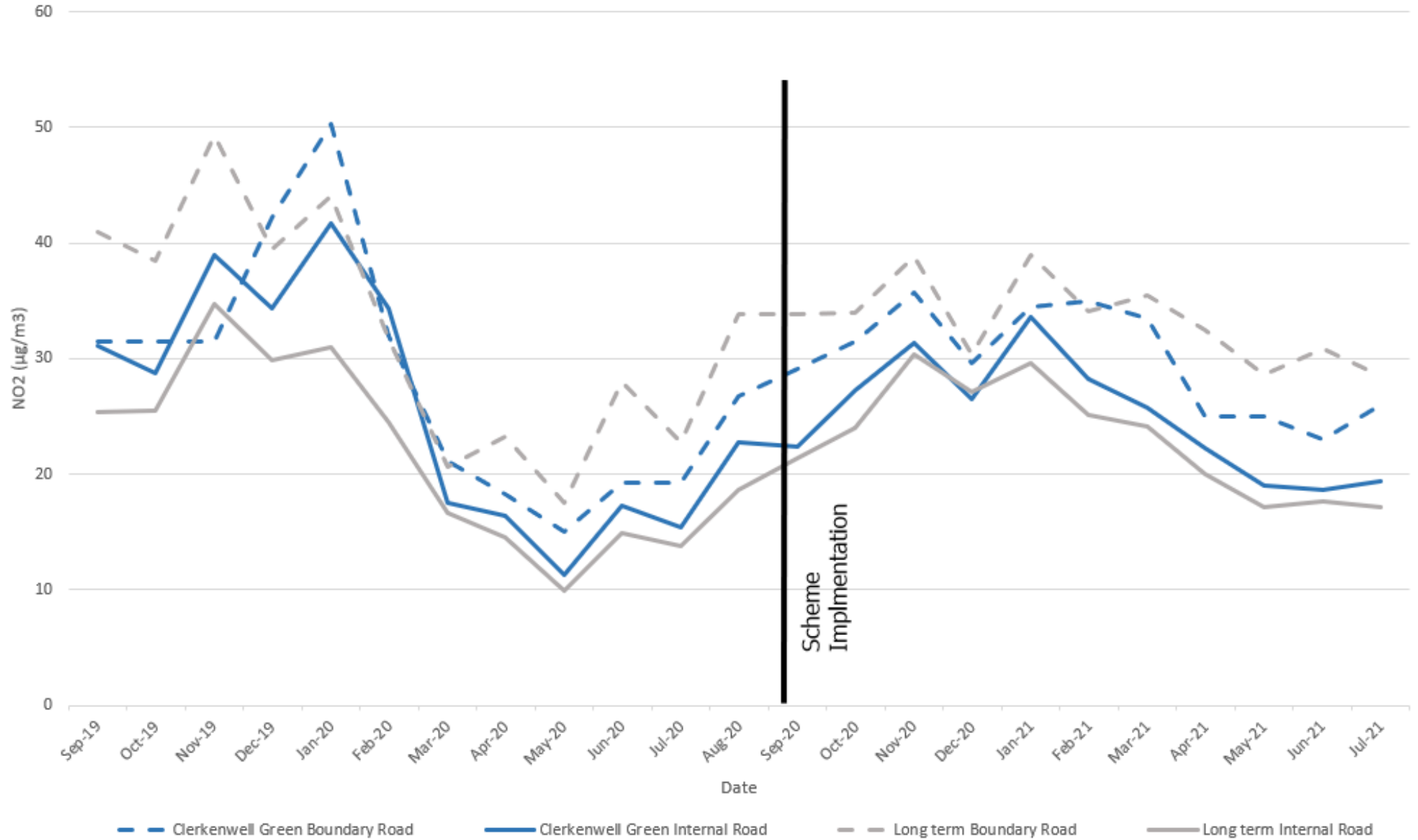
Table 38: (Overall) NO₂ levels in Clerkenwell Green and borough long term diffusion tube sites

	Pre Scheme Year NO₂ (µg/m³)	Post Scheme Year NO₂ (µg/m³)	Pre Scheme compared Post Scheme Year (µg/ m³)	Pre Scheme compared Post Scheme Year (% change)
Clerkenwell Green	27	26	-1	4%
Whole Borough long term sites	27	28	1	4%

In Clerkenwell Green there are nine monitoring locations for Pre Scheme and ten for Post Scheme, and eighteen monitoring locations for the whole borough long term sites.

Graph 6 compares the trends in NO₂ levels in Clerkenwell Green and across Boundary, Interior and Non-Street roads from July 2019 through to June 2021.

Graph 6: Average NO₂ levels in Clerkenwell Green compared to long term borough-wide sites from diffusion tubes



Insights: air quality

The results show that there has been a negligible change (less than 10%) in the levels of pollution at the monitoring sites when the post-implementation period is compared with the Pre scheme data. There is no significant difference in changes to air quality Clerkenwell Green compared to the whole borough when looking at the overall average. This is across Clerkenwell Green and the borough, where a full year of Pre scheme data is available.

The results show that there has been a negligible change (less than 10%) in the levels of pollution at the monitoring sites when the post-implementation period is compared with the year before. There is no significant difference in changes in Clerkenwell Green compared to the whole borough when looking at the overall average. This is across Clerkenwell Green and the borough, where a full year of Pre scheme data is available.

As Graph 5 shows, the borough-wide and Clerkenwell Green monitoring site averages saw a substantial peak in late 2019 and then all dropped to a low in May 2020 before generally rising. This low in May can likely be ascribed to the national lockdown measures, which started in March 2020 and were eased by July 2020, as well as seasonal variation in pollution levels.

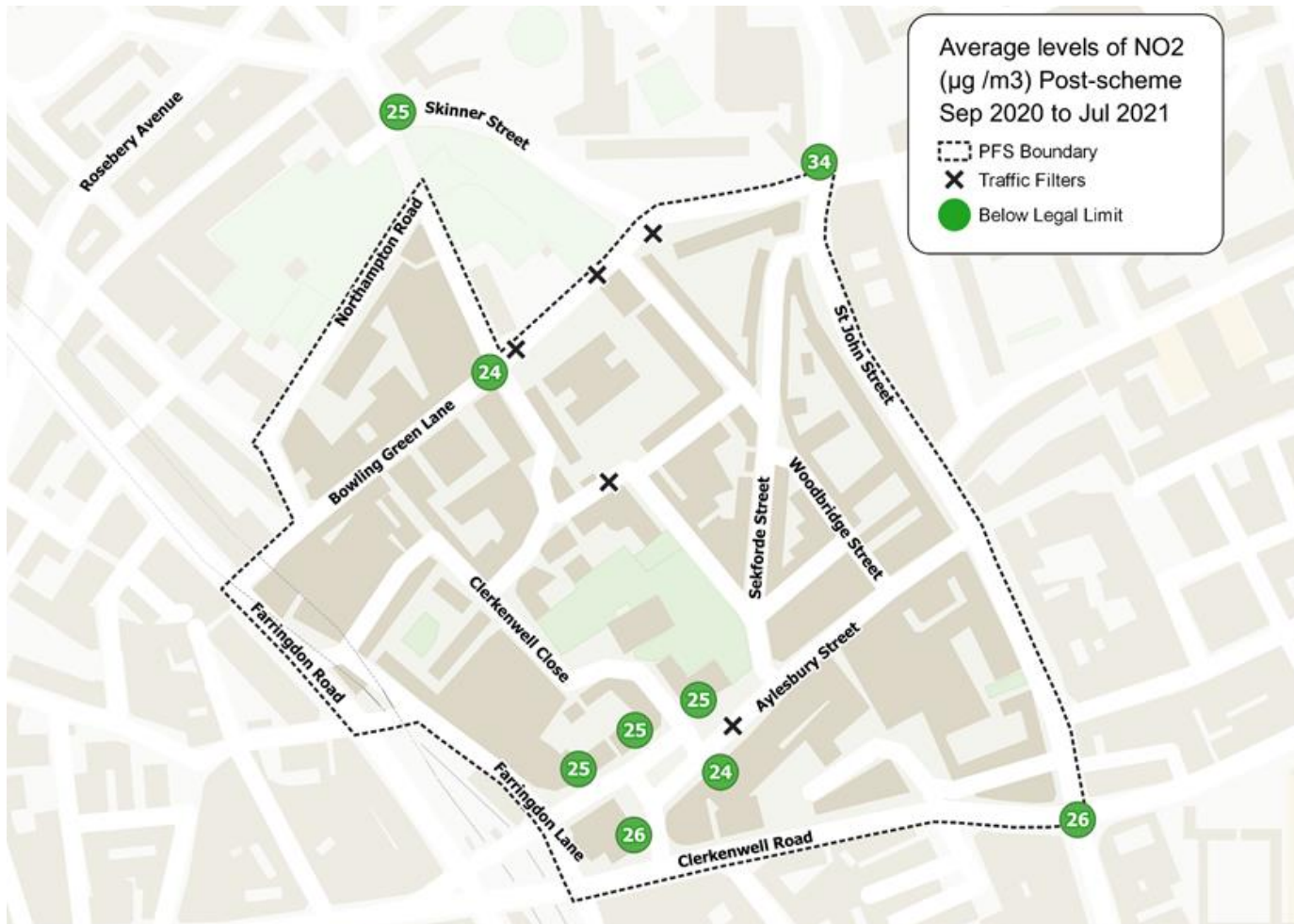
In summary these results show:

- Changes in levels of NO₂ in Clerkenwell Green are slightly better than trends across the borough more widely
- NO₂ levels in Clerkenwell Green have been within the annual objective level of 40µg/m³ at all sites since people-friendly streets started, including on boundary roads.
- Annual average levels of NO₂ in Clerkenwell Green since people-friendly streets started (September 2020-July 2021) are, on average, lower than the previous year for internal and boundary road sites, where data is available from 2019. Although in all cases this is a negligible difference (amounting to a maximum change of one unit increase and two-unit decrease).
- These results are based on a limited number of data points and over a relatively short time period, and so will need longer term analysis and comparison to wider borough trends. This is especially the case for the Clerkenwell Green boundary roads where there were only two monitoring sites with seven months of data before the low traffic neighbourhood was introduced, with one site showing a decrease and one an increase in NO₂ levels.
- The figures presented are an annual average and do not describe fluctuations within this time period that might have influenced the average results. For example, there were a number of roadwork projects on the boundary roads in the post implementation period. It can be very difficult to pick out the reasons for specific spikes and this would require a much more in-depth investigation, not possible within the scope of this analysis.
- In map 9, the 18% increase in NO₂ (µg/m³) at the diffusion tube at the junction of St John Street and Skinner Street is from 29 to 34 (µg/m³), so remains within the annual target objective. Likewise, the decrease at the junction of St. John Street and

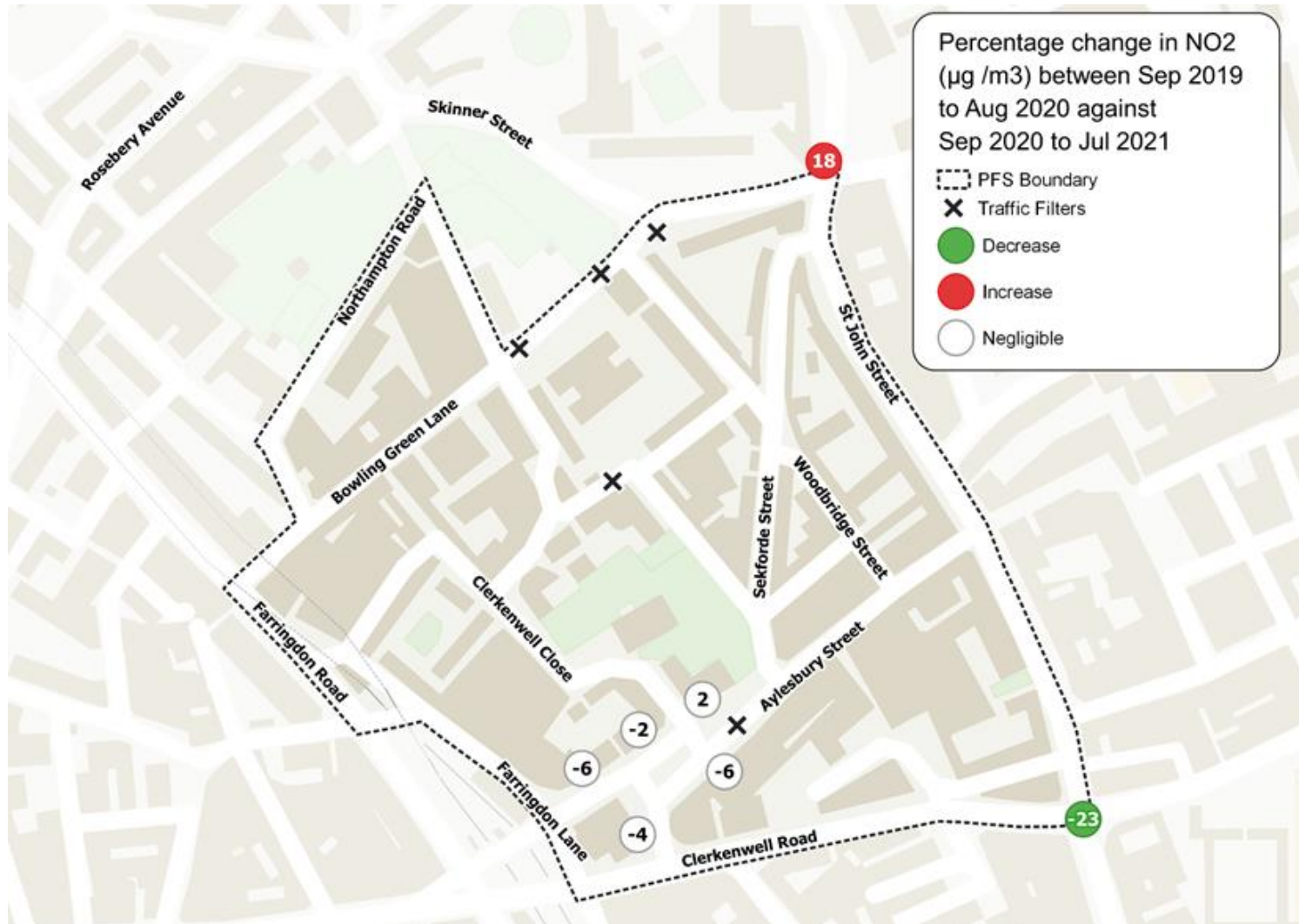
Clerkenwell Road is from 34 to 26 ($\mu\text{g}/\text{m}^3$).

These are generally positive results in line with the objectives of the scheme suggesting the trial has not had an adverse impact on air quality to date.

Map 8: Average levels of NO₂ ($\mu\text{g}/\text{m}^3$) September 2020-July 2021



Map 9: percentage change in NO2 ($\mu\text{g}/\text{m}^3$) between Sept 2019- Aug 2020 and Sept 2020-Jul 2021



Emergency vehicles access

London Ambulance Service

The Council is in conversation with the London Ambulance Service (LAS) about where it may be able to feed into future reports regarding traffic schemes within the Borough and LAS continues to monitor schemes and provide feedback to the council traffic officers should any delays occur to emergency responses.

As of 1 September 2021, there have not been any reported delays in LAS response times as a result of the PFS scheme being implemented in Clerkenwell Green. We will continue to monitor this closely in the future.

Metropolitan Police Service

The council continues to engage and consult with the Metropolitan Police Service (MPS) as part of the implementation of its PFS programme.

The following statement has been provided by the MPS:

Analysis of call data for the past 12 months, up to the end of July 2021, shows there has been no difference in average response times across the London Borough of Islington when compared to the previous 12 months (2019/2020) for both immediate and standard graded calls. There is no specific data available for low traffic neighbourhoods. Over the past 12 months there has been a considerable reduction in call demand due to the effects of the coronavirus pandemic, c.2,800 fewer calls than the 12 months between August 2019 to end of July 2020 and a 19% reduction in offences. As we come out of the pandemic restrictions, we will continue to monitor call data to see if changes in road layouts across the borough affect our response times.

London Fire Brigade

The London Fire Brigade (LFB) monitors the time it takes their vehicles to attend emergencies (attendance times). They are sharing data with the council to enable us to understand if the PFS schemes have adversely impacted attendance times.

The LFB use average attendance times to monitor attendance times. This is because there are a significant number of variables that can

impact attendance times – for example, responding vehicles are not always setting off from the same place.

As detailed in the London Safety Plan, “London Fire Brigade’s intention is always to get to an emergency incident as quickly as possible on each and every occasion. But the Brigade also sets itself targets for the time it should take to arrive at an incident. The Brigade’s London-wide attendance targets are:

- To get the first fire engine to an incident within an average of six minutes.
- To get the second fire engine to an incident within an average of eight minutes.
- To get a fire engine anywhere in London within twelve minutes on 95 per cent of occasions.”

PFS monitoring analysis methodology

As advised by the LFB, the 2019 averages for Islington and Clerkenwell Green are used as the baseline against which to compare the post-implementation averages for each area.

The averages for the Clerkenwell Green area are considered together with averages for the whole borough, to ascertain to what degree the scheme has impacted the post-implementation attendance times in the PFS area compared to the borough overall, thus accounting for any potential COVID-19 disruption.

The results cover response times to incidents attended by the brigade to an address in the specified area. They do not include the times of response vehicles that passed through the area to attend an incident in a different area.

Results

Table 39: Average attendance times of the London Fire Brigade – Islington-Wide Data

Period	No. of mobilisations	Average Attendance 1st Appliance (mm:ss)	Average Attendance 2nd Appliance (mm:ss)
Islington 2019 (baseline)	2,076	04:36	06:17
Islington 2020	2,046	04:29	06:02
Islington (June 2020 to June 2021)	2,127	04:48	06:17
Change against 2019 data	n/a	+00:12	±00:00

Table 40: Average attendance times of the London Fire Brigade – Clerkenwell Green Ward Data

Period	No. of mobilisations	Average Attendance 1st Appliance (mm:ss)	Average Attendance 2nd Appliance (mm:ss)
Clerkenwell Green 2019 (baseline)	165	04:30	05:42
Clerkenwell Green 2020	149	04:14	05:14
Clerkenwell Green (July 2020 to June 2021)	142	04:40	05:24
Change against 2019 data	n/a	+00:10	-00:18

Insights: London Fire Brigade response times

There are many variables that affect response times. The results above show the volume of responses for the Clerkenwell Green ward overall, rather than the Clerkenwell Green PFS area.

The average attendance time for the first appliance remains within the target time of six minutes, and the average attendance time for the second appliance remains well within the target time of eight minutes. Given the extent of variables that affect response times, the differences between the 2019 baseline and the post-implementation period are considered negligible by the LFB and the Council. As such, it is the view of the LFB and the council that the PFS area in Clerkenwell Green has not impacted this emergency service's attendance times.

Anti-Social Behaviour and Crime patterns

Data about anti-social behaviour (ASB) calls, including the location that is being referred to, is gathered in the Council's Community Safety team. This data has been analysed to monitor for changes in the volume of calls within PFS areas, especially around the traffic filters. The nature of the issue being reported has also been taken into consideration.

Data has been drawn from the Clerkenwell Green PFS area and the whole of Islington, and results from the two areas compared month-bymonth to monitor for COVID-19 disruption.

ASB and Crime Pattern Results

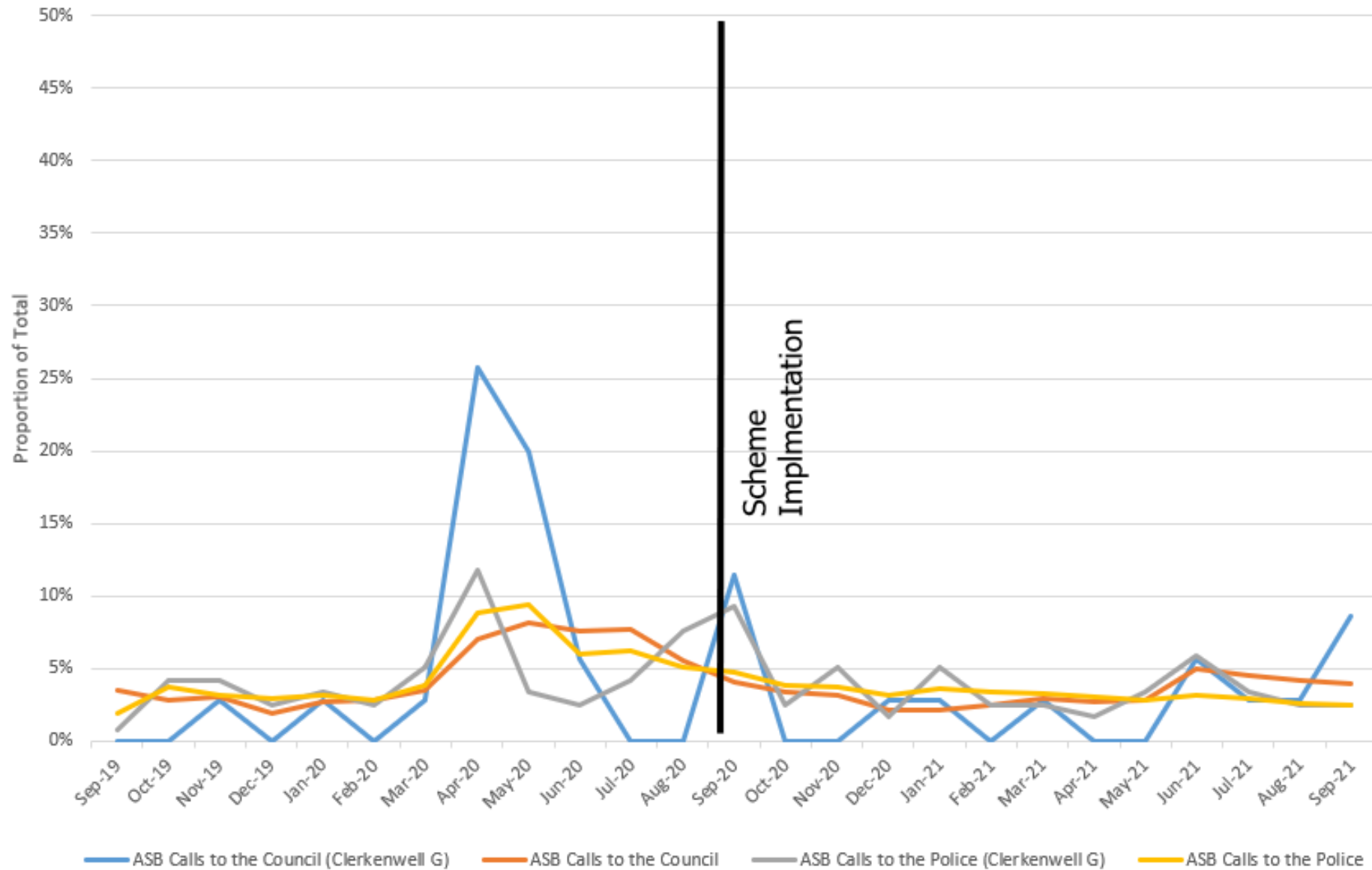
Table 41: Volume of calls and crimes in Clerkenwell Green and Islington (proportion as a percentage of September 2019 – September 2021)

Month	Clerkenwell Green ASB Calls to the Council	Islington ASB Calls to the Council	Clerkenwell Green ASB Calls to the Police	Islington ASB Calls to the Police	Clerkenwell Green Street-based Criminal Offences	Islington Street-based Criminal Offences
Sep-19	0	341	1	351	10	851
Oct-19	0	281	5	688	6	972
Nov-19	1	296	5	577	6	860
Dec-19	0	193	3	539	5	750
Jan-20	1	266	4	573	4	893
Feb-20	0	284	3	521	16	905
Mar-20	1	343	6	699	9	684
Apr-20	9	693	14	1612	3	486
May-20	7	805	4	1732	5	606
Jun-20	2	749	3	1108	4	612
Jul-20	0	756	5	1135	5	694
Aug-20	0	545	9	935	8	790
Sep-20 (PFS starts)	4	399	11	880	11	748
Oct-20	0	335	3	703	7	695
Nov-20	0	317	6	685	1	671
Dec-20	1	216	2	573	4	586
Jan-21	1	216	6	665	4	517
Feb-21	0	240	3	614	3	449
Mar-21	1	295	3	604	2	607
Apr-21	0	272	2	562	1	620
May-21	0	284	4	518	6	683
Jun-21	2	497	7	579	8	607
Jul-21	1	445	4	546	3	653
Aug-21	1	417	3	485	4	723
Sep-21	3	387	3	460	10	736
Total	35	9872	119	18344	145	17,398

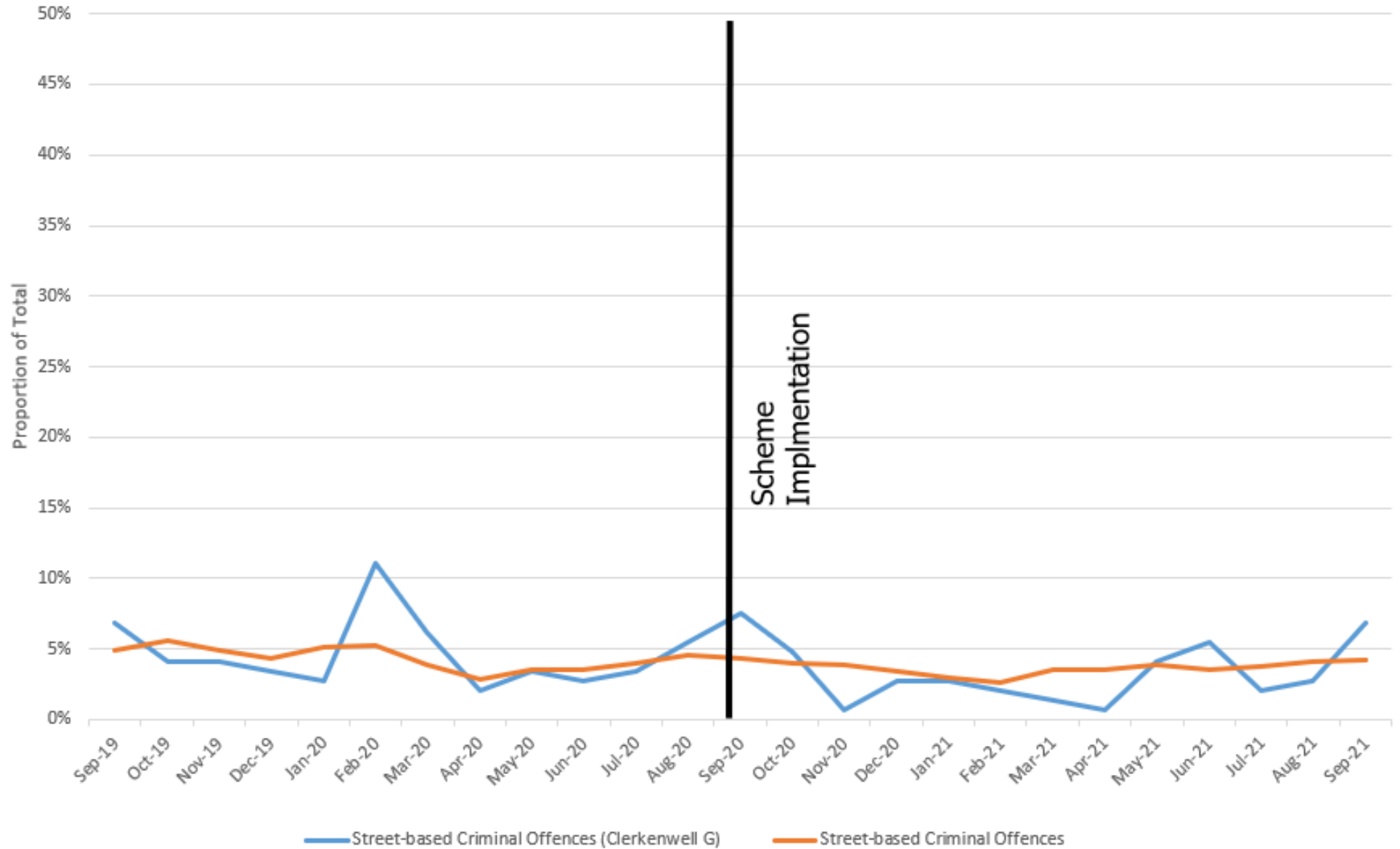
Table 42: Percentage of calls and crimes in the Clerkenwell Green and Islington

Month	ASB Calls to the Council Clerkenwell Green	ASB Calls to the Council	ASB Calls to the Police Clerkenwell Green	ASB Calls to the Police	Street-based Criminal Offences Clerkenwell Green	Street-based Criminal Offences
Sep-19	0.0%	3.5%	0.8%	1.9%	6.9%	4.9%
Oct-19	0.0%	2.8%	4.2%	3.8%	4.1%	5.6%
Nov-19	2.9%	3.0%	4.2%	3.1%	4.1%	4.9%
Dec-19	0.0%	2.0%	2.5%	2.9%	3.4%	4.3%
Jan-20	2.9%	2.7%	3.4%	3.1%	2.8%	5.1%
Feb-20	0.0%	2.9%	2.5%	2.8%	11.0%	5.2%
Mar-20	2.9%	3.5%	5.0%	3.8%	6.2%	3.9%
Apr-20	25.7%	7.0%	11.8%	8.8%	2.1%	2.8%
May-20	20.0%	8.2%	3.4%	9.4%	3.4%	3.5%
Jun-20	5.7%	7.6%	2.5%	6.0%	2.8%	3.5%
Jul-20	0.0%	7.7%	4.2%	6.2%	3.4%	4.0%
Aug-20	0.0%	5.5%	7.6%	5.1%	5.5%	4.5%
Sep-20 (PFS implemented)	11.4%	4.0%	9.2%	4.8%	7.6%	4.3%
Oct-20	0.0%	3.4%	2.5%	3.8%	4.8%	4.0%
Nov-20	0.0%	3.2%	5.0%	3.7%	0.7%	3.9%
Dec-20	2.9%	2.2%	1.7%	3.1%	2.8%	3.4%
Jan-21	2.9%	2.2%	5.0%	3.6%	2.8%	3.0%
Feb-21	0.0%	2.4%	2.5%	3.3%	2.1%	2.6%
Mar-21	2.9%	3.0%	2.5%	3.3%	1.4%	3.5%
Apr-21	0.0%	2.8%	1.7%	3.1%	0.7%	3.6%
May-21	0.0%	2.9%	3.4%	2.8%	4.1%	3.9%
Jun-21	5.7%	5.0%	5.9%	3.2%	5.5%	3.5%
Jul-21	2.9%	4.5%	3.4%	3.0%	2.1%	3.8%
Aug-21	2.9%	4.2%	2.5%	2.6%	2.8%	4.2%
Sep-21	8.6%	3.9%	2.5%	2.5%	6.9%	4.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Graph 7: ASB calls to the Council and Police in Clerkenwell Green and Islington as a percentage of the total over 23 months



Graph 8: Street crimes Clerkenwell Green and Islington as a percentage of the total over 23 months



Insights: anti-social behaviour and crime patterns

In terms of crime rates and ASB, during the past 23 months Clerkenwell Green's PFS area showed trends that were consistent with Islington as a whole. Across the various analyses of the volume of ASB calls and crimes in Clerkenwell Green and Islington over the time period, the monthly volume of calls and crimes as a proportion of the total over the year period has remained largely consistent between Clerkenwell Green and Islington.

The results show significant increases in reports of anti-social behaviour during the first lockdown in 2020 (March to July 2020). There was a substantial spike in ASB calls to the council over this period. A contributing factor to this increase will have been reporting of people breaching the rules set out by central government; such breaches were especially prevalent during May 2020. Alongside increases in ASB, lockdown had the effect of contributing to a decrease in observed crime, a trend in both Islington and the Clerkenwell Green area.

Concluding remarks

People-friendly streets are being introduced on a trial basis, with a full public consultation held twelve months into each scheme to give residents the chance to give their views. This pre-consultation monitoring report is intended to inform the consultation, by providing analysis of key indicators such as traffic volumes, air quality and emergency service response times.

This monitoring report shows that the Clerkenwell Green PFS trial is having the intended impacts of reducing motorised traffic overall across internal roads and increasing levels of cycling on internal roads. There has been negligible change in crime and antisocial behaviour patterns and fire brigade response times in the area. The trial has had a negligible impact on air quality.

Although the number of motorised vehicles remains generally low on all of the internal roads (less than 900 vehicles per day), the volumes have increased significantly on some roads. There has also been an increase in traffic on the boundary roads, indicating that traffic volumes have risen in the areas surrounding Clerkenwell Green. These increases, alongside the 62% increase in cycling volumes on boundary roads and 100% increase in cycling volumes on internal roads that have been reported here may reflect an overall increase in activity in this area of Central London as Coiv-19 restrictions have eased. Clerkenwell Green has mixed land uses with shops and offices, which makes it different to the other PFS areas, that tend to be more residential.

Another factor that is likely to have contributed to the rise in motorised vehicles on the internal roads is the unauthorised removal of the removable bollards from the traffic filters at Sans Walk and Clerkenwell Green. The removable bollards at the filter where Clerkenwell Green meets Aylesbury Street were absent during the pre-consultation counts. Although the signs for the modal filters remain in place and there is no legal access, the removal of the bollards means that motorised traffic can physically pass through the filters. There is a camera-enforced traffic filter on Corporation Row, leading to Bowling Green Lane, where there has been a 44% decrease in motorised traffic volumes. This indicates that the camera-enforced filters may be more effective in enforcing the PFS.

The council has ambitions to improve Clerkenwell Green by creating a more pleasant and greener local environment, which was supported by the majority of respondents in a 2017 consultation. The Clerkenwell Green PFS scheme meets some of the through-traffic reduction elements of these proposals, and the council aims to deliver further on these aspirations in 2022.

Future decisions to keep, remove or amend the Clerkenwell Green PFS will not depend on any single metric, but will be informed by an evaluation of all the insights in this report along with all feedback including the formal consultation which will start on 4 November.

Appendices

Appendix 1: Internal Roads counts

This section contains pre-consultation results, for interim results please refer to the [Clerkenwell Green Interim Monitoring Report](#).

Bowling Green Lane

Motorised traffic

	Baseline Observed-	Baseline Normalised-	After Observed-	After Observed normalised	Difference	Difference (Normalised)	Difference observed (%)	Difference Normalised (%)
7 day total	7912	8466	4567	4766	-3345	-3700	-42%	-44%
7 day daily average	1130	1209	652	681	-478	-529	-42%	-44%
5 day total	6511	6967	3666	3826	-2845	-3142	-44%	-45%
5 day daily average	1302	1393	733	765	-569	-628	-44%	-45%
5-day AM peak hourly average	79	85	46	48	-33	-36	-42%	-43%
5-day PM peak hourly average	95	101	40	41	-55	-60	-58%	-59%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1691	3453	1762	104%
7 day daily average	242	493	252	104%
5 day total	1395	2955	1560	112%
5 day daily average	279	591	312	112%
5 day AM peak hourly average	33	64	31	96%
5 day PM peak hourly average	25	52	27	110%

Woodbridge Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	635	679	1253	1308	618	628	97%	92%
7 day daily average	91	97	179	187	88	90	97%	92%
5 day total	480	514	965	1007	485	493	101%	96%
5 day daily average	96	103	193	201	97	99	101%	96%
5 day AM peak hourly average	6	6	10	11	5	5	86%	81%
5 day PM peak hourly average	6	7	13	13	7	7	105%	100%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	232	381	149	64%
7 day daily average	33	54	21	64%
5 day total	163	286	123	75%
5 day daily average	33	57	25	75%
5 day AM peak hourly average	1	3	1	111%
5 day PM peak hourly average	3	5	1	46%

Sekforde Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	1404	1502	1668	1741	264	238	19%	16%
7 day daily average	201	215	238	249	38	34	19%	16%
5 day total	1102	1179	1324	1382	222	202	20%	17%
5 day daily average	220	236	265	276	44	40	20%	17%
5 day AM peak hourly average	8	9	17	18	9	9	110%	105%
5 day PM peak hourly average	18	19	16	16	-2	-3	-12%	-14%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	440	709	269	61%
7 day daily average	63	101	38	61%
5 day total	354	558	204	58%
5 day daily average	71	112	41	58%
5 day AM peak hourly average	5	8	3	75%
5 day PM peak hourly average	6	11	5	73%

Clerkenwell Green South

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	3306	3538	2655	2771	-651	-767	-20%	-22%
7 day daily average	472	505	379	396	-93	-110	-20%	-22%
5 day total	2789	2984	2160	2254	-629	-730	-23%	-24%
5 day daily average	558	597	432	451	-126	-146	-23%	-24%
5 day AM peak hourly average	41	44	24	25	-17	-19	-42%	-44%
5 day PM peak hourly average	28	30	23	24	-5	-6	-17%	-19%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1063	2500	1437	135%
7 day daily average	152	357	205	135%
5 day total	875	2031	1156	132%
5 day daily average	175	406	231	132%
5 day AM peak hourly average	15	34	19	130%
5 day PM peak hourly average	14	33	19	136%

Clerkenwell Green West

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	5061	5416	5957	6216	896	801	18%	15%
7 day daily average	723	774	851	888	128	114	18%	15%
5 day total	4266	4565	4964	5180	698	615	16%	13%
5 day daily average	853	913	993	1036	140	123	16%	13%
5 day AM peak hourly average	58	62	54	56	-4	-6	-7%	-9%
5 day PM peak hourly average	52	56	71	74	19	18	36%	32%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	950	1613	663	70%
7 day daily average	136	230	95	70%
5 day total	793	1366	573	72%
5 day daily average	159	273	115	72%
5 day AM peak hourly average	11	20	9	77%
5 day PM peak hourly average	14	26	11	76%

Clerkenwell Close

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	1534	1641	2054	2143	520	502	34%	31%
7 day daily average	219	234	293	306	74	72	34%	31%
5 day total	1200	1284	1631	1702	431	418	36%	33%
5 day daily average	240	257	326	340	86	84	36%	33%
5 day AM peak hourly average	13	14	18	18	4	4	34%	31%
5 day PM peak hourly average	12	13	19	20	7	7	60%	56%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	368	822	454	123%
7 day daily average	53	118	65	123%
5 day total	286	713	427	149%
5 day daily average	57	143	85	149%
5 day AM peak hourly average	4	13	9	191%
5 day PM peak hourly average	5	13	8	152%

Appendix 2: Boundary roads counts

Skinner Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	25148	26910	31051	32402	5903	5493	23%	20%
7 day daily average	3593	3844	4436	4629	843	785	23%	20%
5 day total	20612	22056	25055	26145	4443	4089	22%	19%
5 day daily average	4122	4411	5011	5229	889	818	22%	19%
5 day AM peak hourly average	273	293	271	283	-3	-10	-1%	-3%
5 day PM peak hourly average	280	300	344	359	64	59	23%	20%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	3003	4559	1556	52%
7 day daily average	429	651	222	52%
5 day total	2311	3572	1261	55%
5 day daily average	462	714	252	55%
5 day AM peak hourly average	33	62	30	92%
5 day PM peak hourly average	38	57	20	53%

Rosebery Avenue

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	63119	67540	64664	67478	1545	-63	2%	0%
7 day daily average	9017	9649	9238	9640	221	-9	2%	0%
5 day total	45930	49147	46845	48883	915	-264	2%	-1%
5 day daily average	9186	9829	9369	9777	183	-53	2%	-1%
5 day AM peak hourly average	442	473	448	468	7	-5	1%	-1%
5 day PM peak hourly average	552	590	528	551	-23	-39	-4%	-7%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	11412	14178	2766	24%
7 day daily average	1630	2025	395	24%
5 day total	8678	11340	2662	31%
5 day daily average	1736	2268	532	31%
5 day AM peak hourly average	118	148	30	26%
5 day PM peak hourly average	157	210	53	34%

St John Street (Near Great Sutton Street)

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	18151	19422	27672	28876	9521	9454	52%	49%
7 day daily average	2593	2775	3953	4125	1360	1351	52%	49%
5 day total	18151	19422	21897	22850	3746	3427	21%	18%
5 day daily average	3630	3884	4379	4570	749	685	21%	18%
5 day AM peak hourly average	196	209	265	276	69	67	35%	32%
5 day PM peak hourly average	225	240	237	247	12	7	5%	3%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	4432	6752	2320	52%
7 day daily average	633	965	331	52%
5 day total	3490	5459	1969	56%
5 day daily average	698	1092	394	56%
5 day AM peak hourly average	57	97	39	68%
5 day PM peak hourly average	58	84	26	44%

Farringdon Lane

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	17038	18231	27011	28186	9973	9955	59%	55%
7 day daily average	2434	2604	3859	4027	1425	1422	59%	55%
5 day total	13598	14551	21033	21948	7435	7398	55%	51%
5 day daily average	2720	2910	4207	4390	1487	1480	55%	51%
5 day AM peak hourly average	141	151	215	224	74	73	52%	49%
5 day PM peak hourly average	156	167	260	272	105	105	67%	63%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1612	3381	1769	110%
7 day daily average	230	483	253	110%
5 day total	1349	2857	1508	112%
5 day daily average	270	571	302	112%
5 day AM peak hourly average	24	53	29	120%
5 day PM peak hourly average	21	48	27	125%

Clerkenwell Road*

Motorised traffic

	Before observed	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
Thursday AM & PM Peak total	7282	6077	6341	-1205	-941	-17%	-13%
Thursday AM peak hourly average	1087	934	974	-153	-113	-14%	-10%
Thursday PM peak hourly average	1340	1092	1140	-248	-201	-19%	-15%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
Thursday AM & PM Peak total	946	258	-688	-73%
Thursday AM peak hourly average	132	42	-91	-69%
Thursday PM peak hourly average	183	45	-138	-76%

*Baseline counts for Clerkenwell Road use turning count data from a Thursday in March of 2019, this was prior to any lockdowns and therefore does not undergo any normalisation. The "After" counts use ATC data from a Thursday of September 2021.

Appendix 3: Directional breakdown of motorised traffic counts at specific sites

St John Street North (Near Great Sutton Street)

Northbound

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	7938	8494	15903	16595	7965	8101	100%	95%
7 day daily average	1134	1213	2272	2371	1138	1157	100%	95%
5 day total	6426	6876	12457	12999	6031	6123	94%	89%
5 day daily average	1285	1375	2491	2600	1206	1225	94%	89%
5 day AM peak hourly average	79	85	140	146	61	61	76%	72%
5 day PM peak hourly average	75	80	144	150	69	70	92%	88%

Southbound

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	10213	10928	11769	12281	1556	1353	15%	12%
7 day daily average	1459	1561	1681	1754	222	193	15%	12%
5 day total	8331	8915	9440	9851	1109	936	13%	11%
5 day daily average	1666	1783	1888	1970	222	187	13%	11%
5 day AM peak hourly average	96	103	125	130	29	28	30%	27%
5 day PM peak hourly average	107	114	93	98	-13	-17	-12%	-15%

Skinner Street

Eastbound

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	14295	15296	18952	19777	4657	4480	33%	29%
7 day daily average	2042	2185	2707	2825	665	640	33%	29%
5 day total	11677	12495	15525	16201	3848	3706	33%	30%
5 day daily average	2335	2499	3105	3240	770	741	33%	30%
5 day AM peak hourly average	120	128	146	152	26	24	22%	19%
5 day PM peak hourly average	182	195	233	243	50	48	28%	24%

Westbound

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	10853	11613	12099	12625	1246	1012	11%	9%
7 day daierage	1550	1659	1728	1804	178	145	11%	9%
5 day total	8935	9561	9530	9945	595	384	7%	4%
5 day daierage	1787	1912	1906	1989	119	77	7%	4%
5 day AM pak hourly average	154	164	125	131	-28	-34	-19%	-21%
5 day PM pe hourly average	98	105	111	116	13	11	14%	11%

Appendix 4: Directional breakdown of cycling volume counts at specific sites

St John Street

Northbound

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	2555	3112	557	22%
7 day daily average	365	445	80	22%
5 day total	2015	2518	503	25%
5 day daily average	403	504	101	25%
5 day AM peak hourly average	42	26	-15	-37%
5 day PM peak hourly average	27	49	21	77%

Southbound

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1877	3640	1763	94%
7 day daily average	268	520	252	94%
5 day total	1475	2941	1466	99%
5 day daily average	295	588	293	99%
5 day AM peak hourly average	16	70	55	347%
5 day PM peak hourly average	31	35	4	14%

Skinner Street

Eastbound

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	2650	4097	1447	55%
7 day daily average	379	585	207	55%
5 day total	2051	3230	1179	57%
5 day daily average	410	646	236	57%
5 day AM peak hourly average	31	59	28	93%
5 day PM peak hourly average	33	52	19	57%

Westbound

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	353	462	109	31%
7 day daily average	50	66	16	31%
5 day total	260	342	82	32%
5 day daily average	52	68	16	32%
5 day AM peak hourly average	2	3	1	73%
5 day PM peak hourly average	4	5	1	22%

Appendix 5: Speed results

Speeds on internal roads (seven-day totals)

Speeds	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Bowling Green Lane	15.06	13.30	18.00	16.20	409	99	5.2%	2.2%
Woodbridge Street	12.93	13.77	17.10	17.62	37	90	5.8%	7.2%
Sekforde Street	15.95	15.46	20.30	19.30	227	192	16.2%	11.5%
Clerkenwell Green south site	12.30	12.45	15.20	15.30	37	60	1.1%	2.3%
Clerkenwell Green west site	14.38	14.12	17.20	16.80	164	165	3.2%	2.8%
Clerkenwell Close	15.06	12.54	18.00	15.60	409	43	5.2%	2.1%

Speeds on boundary roads (seven-day totals)

	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Skinner Street	21.78	21.76	25.80	25.70	16818	20532	66.9%	66.1%
St John Street	19.05	19.12	23.50	23.50	7142	11245	39.3%	40.6%
Farringdon Lane	17.31	17.79	21.20	21.50	3842	6661	22.5%	24.7%
Rosebery Avenue	22.42	22.45	26.90	27.10	43102	44497	68.3%	68.8%

Appendix 6: Pedestrian count data tables

August 2020

Origin	Thursday 20th AM	Thursday 20th Inter	Thursday 20th PM	Saturday 22nd AM	Saturday 22nd Inter	Saturday 22nd PM
A	64	85	213	24	62	179
B	181	188	360	69	141	210
C	315	104	191	62	86	130
D	100	126	178	50	149	332
Total	660	503	942	205	438	851

September 2021

Origin	Thursday 20th AM	Thursday 20th Inter	Thursday 20th PM	Saturday 22nd AM	Saturday 22nd Inter	Saturday 22nd PM
A	99	168	362	35	112	150
B	346	530	1055	115	220	319
C	1127	311	511	93	160	192
D	263	300	382	49	163	197
Total	1835	1309	2310	292	655	858

Difference Aug 2020 - Sept 2021

Origin	Thursday 20th AM	Thursday 20th Inter	Thursday 20th PM	Saturday 22nd AM	Saturday 22nd Inter	Saturday 22nd PM
A	35	83	149	11	50	-29
B	165	342	695	46	79	109
C	812	207	320	31	74	62
D	163	174	204	-1	14	-135
Total	1175	806	1368	87	217	7

Difference Aug 2020 - Sept 2021

Origin	Thursday 20th AM	Thursday 20th Inter	Thursday 20th PM	Saturday 22nd AM	Saturday 22nd Inter	Saturday 22nd PM
A	55%	98%	70%	46%	81%	-16%
B	91%	182%	193%	67%	56%	52%
C	258%	199%	168%	50%	86%	48%
D	163%	138%	115%	-2%	9%	-41%
Total	178%	160%	145%	42%	50%	1%

Appendix 7: Extra roads traffic counts

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
St John Street North	2613	2796	3545	3700	932	904	36%	32%
St John Street South	2504	2679	4304	4491	1800	1812	72%	68%
Cowcross Street	500	535	985	1028	485	493	97%	92%
Spencer Street	1206	1290	1257	1311	51	21	4%	2%
Percival Street	3776	4041	3879	4048	103	8	3%	0%
Hall Street	307	329	289	302	-18	-27	-6%	-8%

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
St John St near Charterhouse Street*	1634	1749	3443	3593	1809	1844	111%	105%

Appendix 8: Extra roads cycle counts

	Before observed	After observed	Difference observed	Difference observed (%)
St John Street North	458	603	145	32%
St John Street South	496	707	211	43%
Cowcross Street	213	382	169	79%
Spencer Street	28	414	386	1363%
Percival Street	605	981	376	62%
Hall Street	55	127	72	130%

	Before observed	After observed	Difference observed	Difference observed (%)
St John St near Charterhouse Street *	987	1378	390	40%

Appendix 9: Clerkenwell Green traffic count locations and type

Islington-commissioned traffic count sites and type

Boundary	Type
Skinner Street	ATC
Rosebery Avenue	ATC
St John Street near Great Sutton Street	ATC
Farringdon Lane	ATC
Boundary (different baseline)	
Clerkenwell Road	March 2019: Manual Turning Counts (0700-1000; 1600-1900) September 2021: ATC
Internal	
Bowling Green Lane	ATC
Woodbridge Street	ATC
Sekforde Street	ATC
Clerkenwell Green south site	ATC
Clerkenwell Green west site	ATC
Clerkenwell Close	ATC
Extra Roads (not shown on map or included in analysis)	
St John Street south of Rosebery Ave	ATC
St John Street near Passing Alley	ATC
St John Street between Cowcross St and Charterhouse St	Camera Link (0700-1000)
Cowcross Street	ATC
Spencer Street	ATC
Percival Street	ATC

Boundary	Type
Hall Street	ATC

TfL permanent traffic sites and coordinates (all ATCs)

Street name	Northing	Easting
A1 Archway	529219	187254
Pentonville Rd	531004	183093
Camden Road	529924	185126
Caledonian Rod	530708.1	183517.3
Clerkenwell Rod	531863	182129
City Road	532762	182386
Old Street	532668	182448
St John Street	531460	183048
A1 Upper Stret	531650	184311
Holloway Road	531239	185120
Canonbury Rod	531885.4	184353.7
Southgate Rod	532956	184553

TfL also has a counter on Essex Road, which has not been included in the normalisation methodology because of incomplete data that has not been processed.

ATCs measure traffic volumes and speeds using two thin tubes that run across the street and are connected to a sensor. When wheels pass over the tubes, the pressure impact is interpreted by the sensor to identify the type of vehicle passing over, and the speed with which it passed. They are approximately 98% reliable. Inaccuracies can arise when, for example, two vehicles pass at the same time they may be counted as one, or if a car and bicycle pass at the same time, it may be read as one car. However, the same method is used before and after and the method is considered a good industry standard. They are used as a standard in monitoring transport schemes.

Motorised traffic includes: light vehicles (cars and small vans), medium vehicles (light goods vehicles up to four axel trucks, and buses), and heavy vehicles (articulated trucks, heavy goods vehicles).

Appendix 10: Traffic count normalisation methodologies

Traffic counts

To calculate the normalised percentage differences, the August 2020 traffic count volumes have been divided by 0.9345, the September 2021 traffic counts by 0.9583 to give normalised volumes. In other words, in order to account for the fact that there was less traffic on Islington streets from March 2020 onwards we have provided adjusted figures that provide an estimate for what the traffic would have been if there was no COVID-19 disruption. This allows us to analyse the impacts of the PFS area scheme rather than the impacts of COVID-19 on the traffic volumes.

To calculate the percentage change the difference has then been taken between the two and divided by the normalised baseline volume to arrive at a normalised percentage change.

The normalisation figure for each month is reached by calculating the average daily percentage difference between the “baseline” month (pre-COVID-19 impact) and the corresponding “COVID-19 impacted” month (i.e. August 2020 and September 2021) across all the permanent TfL counter sites around Islington, and taking an average difference for the whole month.

Appendix 11: Air quality monitoring

We have been monitoring air quality since 2000 and have 21 long term monitoring sites across the borough. We also have additional monitoring in place for specific projects and have been monitoring air quality outside every school in the borough since 2018. As such, there is significant long-term air quality data collection across the borough, which will be used in the normalisation process. It also means there is existing air quality monitoring within the Clerkenwell Green trial area, though some monitoring equipment has been added to expand the air quality monitoring in and around an area.

The air quality monitoring sites in the Clerkenwell Green area are listed below, with details about type and if they have been added as part of the PFS programme, or were pre-existing.

Clerkenwell Green air quality monitoring sites type, period of installation and additional Rosebery Avenue monitor

Locations	PFS road type	Monitoring type	Installation	Site Type by DEFRA classification*
Clerkenwell Road/St John Street (OC3)	Boundary	Diffusion tube	Pre-existing (since December 2019)	Roadside
St John Street (OC2)	Boundary	Diffusion tube	Pre-existing (since December 2019)	Roadside
Skinner Street/Rosoman Place (PF7)	Boundary	Diffusion tube	New (since August 2020)	Roadside
Clerkenwell Green (C1-5)	Internal	Diffusion tube	Pre-existing (since 2018)	Background urban
Northampton Road/Corporation Row (PF8)	Internal	Diffusion tube	New (since August 2020)	Background urban

Islington's air quality team classify sites using [Defra guidance](#) based on their location. Roadside sites are those within one to five metres of a busy road, while urban background sites are those in an urban location but more distanced from sources and therefore more representative of wider background conditions.

Methodology

Data quality control

As a council we are legally obliged to monitor air quality and report on this every year. To ensure data is as accurate as possible we follow national guidance for monitoring air quality, in terms of deployment and results analysis. For example: use of accredited monitors, personnel and laboratories or correction of diffusion tube data based on annual comparisons to automatic monitors. More information on this process can be found in our [annual reports](#).

The data used in this analysis will follow these rules as much as possible, especially in regards to monitor deployment. However it will not have fully gone through this process, especially in regards to normal end of year analysis processes for 2020, and should therefore be treated as provisional. This is even more the case with the sensor data, which is not an approved monitoring type for official reports and where the uncertainties are more unknown.

The 2020 data in this report has been adjusted using a correction factor of 0.94. Adjusting data in this way is standard practice in making air quality data as accurate as possible, more information on this factor can be found in the 2019 annual report, and in the 2020 annual report when this is published. The data for 2021 is still raw as a bias correction factor has not yet been calculated. For time periods where less than 75% of data was captured the data has been "annualised", meaning it has been adjusted by comparing it to monitors that had data for the whole period. More information can be found on this process in the annual air quality report.

Insights background

Pollution levels are impacted by a range of local and wider sources. For example, the [source apportionment study](#) conducted for Islington in 2015 found only 3% of London's NOx emissions came from inside Islington. Therefore, it can be very hard to pick up on local changes caused by schemes such as people-friendly streets.

Pollution also varies a lot over time due to a range of external factors (such as weather) for which this study has not corrected, therefore ideally a longer period of study would be required to analyse these results more fully. This would also allow further quality control of data that has not been possible with these results. There is also further uncertainty in recent results and whether these will represent longer term trends due to COVID-19. Studies of the first lockdown in March, for example by the [Greater London Authority](#), show a decrease in overall motorised traffic and NO₂ levels but no consistent change in PM due to weather impacts.

Appendix 12: Project Centre Ltd statement

Project Centre is a multi-disciplinary design, engineering and landscaping architecture consultancy, whose highly talented people are passionate about creating places that are attractive, innovative, sustainable and safe. Project Centre's areas of expertise include air quality improvement schemes, neighbourhood traffic schemes, pedestrianisation, cycle design, road safety, traffic modelling and traffic data analysis.

Project Centre Ltd (PCL) has been commissioned by the London Borough of Islington (LBI) to prepare their report, the Clerkenwell Green People-Friendly Streets trial Pre-Consultation Monitoring Report. It is intended that this report provides an accurate, neutral evaluation of the impact of the Clerkenwell Green people-friendly street scheme.

The key areas of focus were that the agreed methodology followed the correct process; that the conclusions were drawn without bias; that the tables and charts in both the report and appendices corresponded exactly with the underlying data analysis; and that this analysis corresponded with the methodology set out within the report and was free from error.

PCL carried out extensive checks on the data analysis. This included checking that formulae correctly reflected the processes described in the reports as well containing the correct values or cell references. Checks were also made that data had been correctly copied through a mixture of verifying complete tables against those in the report and appendices and spot-checking values in the raw data and analyses calculations.

Neither PCL nor LB Islington can be held accountable for errors in the data provided by third parties, where these errors have not been identified through the usual checking processes.

In preparing the report, application of the agreed methodology and data, PCL assessed whether the approaches taken and methods of presentation used provided a neutral evaluation of the scheme. Care was taken so that data was treated even-handedly and had in no-way exaggerated results that could be considered beneficial or hidden those that could be considered negative. The methodology followed made appropriate assumptions that allowed for a fair comparison of counts taken before and after the trial implementation against a background of fluctuating overall traffic volumes as a consequence of COVID-19.