Bruce Grove West Green LTN – Final Monitoring Report

Overview

Haringey Council's 'Streets for People' initiative has been developed to promote a vision for thriving local streets, streets that are greener, safer and cleaner.

As part of this initiative, Haringey Council has introduced three Streets for People Low-Traffic Neighbourhoods (LTNs) across the borough: Bounds Green LTN (August 2022), St Ann's LTN (August 2022), and Bruce Grove West Green LTN (November 2022). In the Bruce Grove West Green LTN area, the council installed 21 traffic filters to prevent motor vehicles from cutting through the local area.

This final monitoring report provides data and insights relating to the Bruce Grove West Green LTN trial. Building on the Interim report published in June 2023 and incorporating data from traffic counts undertaken in November 2023, this report seeks to understand how this LTN trial scheme is operating after over a year in operation. Following the Interim Review, 2 filters were fully removed (Moorefield Road and Linley Road) and restriction at The Avenue opened up in the westbound direction. Therefore, 19 filters remained.

Contents

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 the report 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 07h00 and 10h00.

Automatic Number Plate Recognition (ANPR) cameras – Automatic Number Plate Recognition (ANPR) cameras – ANPR cameras are used to read vehicle registration plates and the information used to inform traffic management and for enforcement. In the context of this report, ANPR cameras are used to enforce some traffic filters within the LTNs in Haringey so that only those with exemptions or the emergency services can pass through them. It is important to note that some filters have a 'no entry' sign on one side which means they are not accessible from that direction for any vehicles, regardless of status.

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 at which it passed. ATCs are considered to be extremely accurate (See Appendix 1 for more details).

Boundary roads – For the purpose of this report, the "boundary roads" of the Bruce Grove West Green trial area are sites **at A10 Bruce Grove (@The Avenue/Woodside Gardens), A105 Green Lanes (@Carlingford Road), A1080 Westbury Avenue (@Mannock Road), A1080 Westbury Avenue (@Willingdon Road), A109 Lordship Lane (@Elsden Road), A109 Lordship Lane (@Waltheof Avenue), A504 West Green Road (@Carlingford Road), A504 West Green Road (@Etherley Road), B153 Philip Lane, B155 Belmont Road,** and **B155 Downhills Way.**

Is it noted that A504 West Green Road (@Etherley Road and @Carlingford Road) is a boundary road in both Bruce Grove West Green and St Ann's LTNs. A10 Bruce Grove (@The Avenue/Woodside Gardens), B155 Belmont Road and B155 Downhills Way are also included as boundary roads for the purpose of this report as they are major roads dividing sub-cells of the LTN. It is also noted that High Road Tottenham was not analysed due to poor data quality.

Cell or 'sub cell' – A neighbourhood within a Low Traffic Neighbourhood (LTN) is often referred to as a cell or sub cell. Cells are a group of residential streets bordered by a boundary road as defined above.

Experimental Traffic Management Order (ETO) – An "Experimental Traffic Management Order" (ETO) is similar to a permanent Traffic Management Order in that it is a legal document that imposes traffic and parking restrictions. However, unlike a Traffic Management Order, an Experimental Traffic Order can only stay in force for a maximum of 18 months while the effects are monitored and assessed, the first six months being a statutory consultation period during which time formal objections can be raised. An ETO also allows for changes to be made to the relevant scheme during the first twelve months of the trial period, this may trigger another six-month statutory consultation period. An Experimental Traffic Order is made under Sections 9 and 10 of the Road Traffic Regulation Act 1984.

Internal Roads – These are roads which fall in between two or more boundary roads in low traffic neighbourhoods. For the purposes of this report, "internal roads" are local roads in the Bruce Grove West Green LTN trial area on which the project aims to reduce the amount of traffic through the introduction of traffic filters, although some will still lie on through routes in the scheme area. These roads are generally narrower than boundary roads. Traffic counts have been collected on some, but not all, of the internal roads in the Bruce Grove West Green LTN 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 the 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 Bruce Grove West Green LTN trial refers to a low traffic neighbourhood implemented in Haringey under an Experimental Traffic Management Order (ETO). The position of the traffic filters means that drivers (including residents, delivery workers and businesses) are still able to reach any part of the neighbourhood whilst using a vehicle but the route they need to take to reach their destination may change.

Normalising – In this report, "normalising" means to adjust traffic count figures to consider the impact of COVID-19 and other macro-scale factors 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 traffic counts may have looked like if traffic levels were at pre-Covid levels.

Observed – In this report, "observed" refers to the data that was collected and that has not been adjusted to consider the impact of COVID-19 on traffic patterns. This is the actual data that was supplied by the data collection company used.

Patched sites / data – As it is not uncommon for there to be problems with data surveys (broken equipment, cars parked on ATC bands etc.) as well as anomalous readings from surveys resulting from one-off events (waterworks, gas leaks, accidents etc.), all data has been thoroughly checked by hand and cleaned or "patched" (i.e. blank data or significantly anomalous data has been substituted by more representative data from the site/wave in question), which is a necessary task in order to maintain comparable data.

PM Peak – In this report, "PM peak" refers to the hours between 16h00 and 19h00.

Traffic Filters - "Traffic filters" (or "modal 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, emergency vehicles and those with an exemption to access the area. People are legally able to walk, cycle and wheel though filters (and use non-motorised scooters).

Video Surveys – Video surveys utilise cameras mounted onto telescopic masts to enable capture of traffic movements, including vehicle classes. Analysts count the traffic from the video surveys to a very high level of >98-100% accuracy.

Introduction – Bruce Grove West Green LTN Final Report

Haringey Council's 'Streets for People' initiative has been developed to promote a vision for thriving local streets, streets that are greener, safer and cleaner. The introduction of measures under the ambitious 'Streets for People' project is aimed at cutting road traffic and pollution, as well as to improve the walkability and cyclability of local areas, all whilst developing active travel corridors between local amenities.

Following an extensive listening and engagement exercise, Haringey Council has introduced three people-friendly Low-Traffic Neighbourhoods (LTNs) across the borough. These schemes use filters, such as bollards or ANPR cameras, to stop motor traffic taking shortcuts along local roads, creating a safer, cleaner and quieter neighbourhood.

The borough's Low Traffic Neighbourhoods comprise the following, which can be seen on Map 1 on the following page:

- Bounds Green LTN (introduced 15 August 2022)

- St Ann's LTN (introduced 22 August 2022)

- Bruce Grove West Green LTN (introduced 1 November 2022)

Map 1 : Location of Haringey LTNs Within the Borough
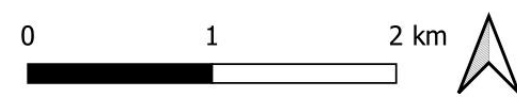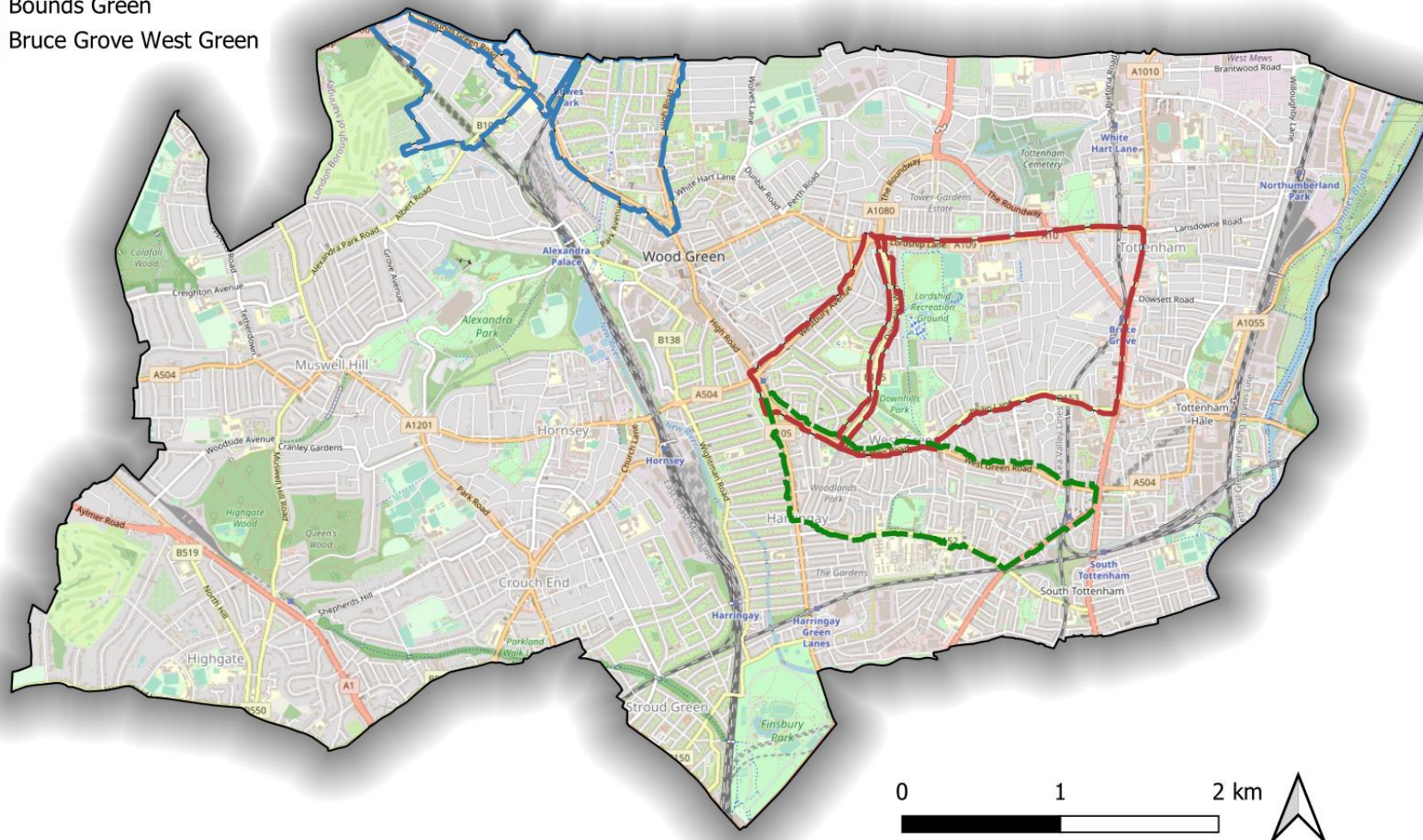
Scheme Context

For the Bruce Grove West Green LTN, the council installed 21 traffic filters in the trial area to prevent motor vehicles from using local streets as through routes. This reduced to 19 filters following decisions made by the council at the Interim review stage. The filters remaining are shown in Map 2 on the following page. Camera enforcement is used in some locations so that emergency vehicles, refuse vehicles and where relevant buses can still pass through some of the traffic filters. Others are enforced with a physical measure such as a bollard.

Camera filters also enable those eligible for exemptions to pass through the traffic filters for which an exemption has been granted by the council without incurring a Penalty Charge Notice (PCN). More details on the range of exemptions available for LTN's in Haringey can be found via this link.

Map 2: Location of Bruce Grove West Green LTN Filters

Introduction – Monitoring Report

This monitoring report provides data and insights relating to the Bruce Grove West Green LTN trial.

Graph 1: Monitoring Process
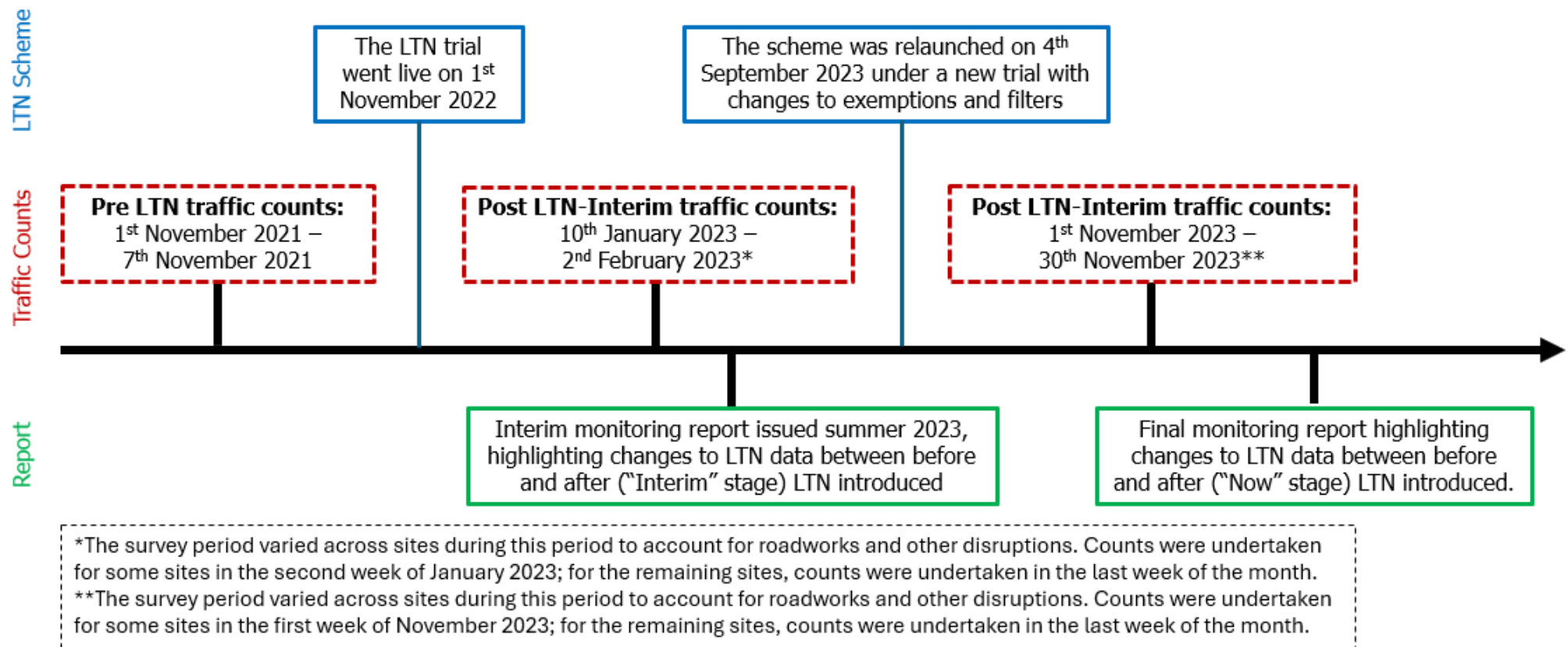
Traffic Counts Approach

The count data presented in this report is not traffic modelling, but actual observed traffic, comparing traffic flows between November 2021, January 2023 and November 2023.

The council uses various traffic counting methods to understand traffic volumes and speeds within and around the LTN to assess if the scheme is having the desired impact and to respond (if required) with mitigating actions. Automatic Traffic Counts (ATCs) are used at most sites for the Bruce Grove West Green area. ATCs measure motorised and cycle traffic volumes and motorised traffic speeds. They classify the traffic by type and are able to collect data for all vehicles regardless of their speed of travel (including those travelling at <10mph. For this scheme, one video camera site was used, on Bruce Grove just southwest of the junction with The Avenue. More information about the different types of counts and which type was used at each site is detailed in Appendix 1.

A map of the count sites is presented on the following page. It is noted that some locations presented in the map have been slightly shifted from their on-street locations to assist with legibility. It is noted that High Road Tottenham data was excluded from the analysis due to poor quality.

Map 3: Bruce Grove West Green LTN and monitoring sites

Analysis and Normalisation Methodology Overview

All the counts in this analysis were undertaken in full awareness of COVID implications and post-COVID working patterns, as well as ongoing national trends such as the cost-of-living crisis – and were therefore processed with results interpreted in a way that accounts for these (and other) background changes to how people travel in London.

Daily volumes of motorised traffic have been drawn from a range of 11 permanent traffic counters managed by Transport for London across Haringey and used to establish monthly averages in 2019 and 2020. 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 2. Normalisation methodologies using TfL count locations across types of typologies (only within 2km of scheme, only on trunk routes etc.) have been considered in studies for other Boroughs and have not been shown to make a notable difference in results, particularly following the lifting of COVID-related regulations.

For context, the difference based on this dataset was greatest in April 2020, where motorised traffic was approximately 58% of what it had been in April 2019. Using the months of the Bruce Grove West Green counts, in November 2023, motorised traffic was approximately 2% lower than in November 2019. This is shown in Table 1 below.

Table 1: Normalisation factors since March 2020 for traffic in Haringey

Month	Impact	Month	Impact
Mar-20	83.52%	Feb-22	95.95%
Apr-20	58.28%	Mar-22	94.32%
May-20	76.78%	Apr-22	93.70%
Jun-20	90.56%	May-22	95.53%
Jul-20	95.61%	Jun-22	94.88%
Aug-20	98.61%	Jul-22	94.56%
Sep-20	96.28%	Aug-22	93.44%
Oct-20	99.45%	Sep-22	94.18%
Nov-20	91.98%	Oct-22	99.69%
Dec-20	89.47%	Nov-22	98.25%
Jan-21	82.03%	Dec-22	92.49%
Feb-21	84.69%	Jan-23	95.16%
Mar-21	89.79%	Feb-23	93.87%
Apr-21	92.65%	Mar-23	93.22%
May-21	93.80%	Apr-23	92.23%
Jun-21	96.76%	May-23	94.44%
Jul-21	97.83%	Jun-23	93.65%

Aug-21	96.95%		Jul-23	93.70%
Sep-21	97.43%		Aug-23	92.94%
Oct-21	101.60%		Sep-23	94.36%
Nov-21	98.94%		Oct-23	98.51%
Dec-21	94.96%		Nov-23	97.76%
Jan-22	94.94%		Dec-23	94.45%

Interpreting Count Results

Unless specified otherwise, the seven-day daily average has been used and discussed in traffic volumes analysis in this report. Full data and flow profiles for each site are provided in Appendix 5.

Raw data has been analysed and compared to give the observed results. The observed results have then undergone the normalisation process described in the previous section to give the normalised results. Normalised results have been given for the total results regarding motorised vehicles. A breakdown per mode of transport has then been provided. It is noted that cycling data and speed data cannot be normalised; raw data is thus provided. However, averages for speed data were weighted using normalised figures to provide normalised weighted total figures.

A negative number or percentage indicates a decrease between the two counts, while a positive number or percentage indicates an increase. Please note that traffic flows fluctuate daily (generally up to 10%), and background impacts on traffic flows cannot be consistently accounted for in the normalisation on a day-to-day and location-by-location basis. As such, in the tables, changes within -10% to +10% are considered insignificant (i.e. no or negligible change) and are not colour coded. In contrast, changes of greater than 10% in a direction aligning with scheme goals (reduced traffic/pollution levels/speeds, and increased cycling) are highlighted in **green**, whilst changes of greater than 10% in the opposite direction are highlighted in **red**.

The maps, on the other hand, have not been colour-coded to reflect the data; they have been colour-coded to portray which sites are boundary roads and which sites are internal roads.

It is noted that results in the tables provided throughout this report indicate **daily** vehicle flows.

In addition, it must be noted that as vehicles travelling through the LTN/on boundary roads may go through multiple counter sites, the summed number of vehicles counted across all monitored roads is higher than the actual number of trips taken. As such, a decrease/increase in total volumes of vehicles counted across multiple individual roads does not represent the same decrease/increase in

total unique vehicle journeys, although this figure can be useful in understanding the magnitude and direction of the scheme's impact. It is important to note, however, that this methodology of recording traffic volumes is consistent across both Pre and Post LTN periods. It is also important to note that this methodology is consistent with the analysis of LTN schemes in other London boroughs.

External Factors

These results must be considered in the context of other external factors that could be impacting the data. Whilst broader trends occurring over longer timescales and larger geographies are likely addressed through normalisation, more local or short-term impacts may also be present. It is not possible to adjust for these in calculations. The main external factors which could be influencing results are as follows:

Nearby Low Traffic Neighbourhoods – As can be seen in Map 1, Bruce Grove West Green LTN borders the St Ann's LTN trial area, which lies south of A504 West Green Road on a shared boundary. Bounds Green LTN is approximately 1.7km to the northeast of the scheme. It is considered that due to distance, any impacts from other Haringey LTN schemes on Bruce Grove West Green would have been minimal. There are a range of schemes with similar objectives as LTNs in neighboring boroughs, including in Waltham Forest to the east, Islington/Hackney to the south and Enfield to the north, but all such schemes are relatively far away and were in place well before the Haringey schemes were introduced. These are therefore unlikely to have impacted on flows in the study area.

Weather – Weather can have a significant impact on travel choices, especially cycling. Weather also impacts air pollution, with more changeable weather better able to disperse pollutants in the wind. During the month in which Pre LTN counts were conducted (November 2021), the average temperature in Greater London was 9°C, with average highs of 11°C and average lows of 7°C. Post LTN-Now counts, taken in November 2023, show an average temperature of 9°C, with average highs of 11°C and average lows of 6°C. Rain levels differed more between the different periods, with 10.2mm of rain falling at Heathrow (the nearest location with continuous data) during the month of the Pre LTN counts, but 78.4mm of rain falling during the month of the Post LTN-Now counts. This indicates that generally, whilst temperatures in the Post LTN-Now data collection period were similar to those collected in the Pre LTN period, the Post LTN-Now period saw considerably higher rainfall levels.

COVID-19 Impacts – In the Pre LTN (November 2021) period, most legally enforced COVID-19 restrictions had already been dropped across the UK. However, infection rates and hospitalisation rates were high throughout the autumn of 2021, peaking with the arrival of the Omicron variant in December of that year. Alongside the fact that masks were still required on Transport for London services until

February 2022, it is likely that many individuals were still working entirely or mostly from home during the time this data was collected.

In contrast, Post LTN-Interim counts were conducted in January 2023, long after all COVID-19 restrictions had been dropped and most London residents had settled into a consistent working pattern, whether at home, at workplaces or in hybrid setups. Post LTN-Now counts were taken almost another year later, so it is expected that working patterns were largely unchanged since the previous round, perhaps with somewhat more hybrid working in professional services sectors. Given that most of the aforementioned trends did not change on a day-to-day basis, is it considered that most of this background behaviour should have been captured by the monthly normalisation methodology.

Cost of Living Crisis – During both the Post LTN-Interim (January 2023) and Post LTN-Now counts (November 2023), rising inflation had significantly increased the price of petrol and other critical items such as heating, with the cost of driving and taking public transportation increasing compared to previous years and the affordability of travel decreasing. This may have reduced the number of discretionary journeys taken by paid modes (both public and private), with some level of increase in walking and cycling likely despite the cold weather. Related to this is the high number of strikes (both on public transport and otherwise) that have disrupted patterns of behaviour – whilst care was taken not to collect data during strikes, it is possible that the uncertainty they generated has impacted more general travel behaviour as well. Again, it is considered that most of this background behaviour should have been captured by the normalisation methodology.

ULEZ Extension – In October 2021, directly before the Pre LTN counts were taken, the ULEZ (Ultra Low Emission Zone) was extended to the North and South Circular Roads, encompassing the entirety of the Borough of Haringey whereas previously none of the Borough was included. Given the Pre LTN counts occurred soon after this, there may still have been some lag in driver behaviour as motorists became more familiar with this restriction. In February 2023, the Mayor of London published Inner London Ultra Low Emission Zone – One Year Report, which stated that in October 2022, the new ULEZ reduced traffic by 47,000 vehicles in the zone on an average day (a reduction of almost 5 per cent). Whilst it is expected that this broad change in cost of driving in the borough has been reflected in normalised data via TfL ATCs, it is possible that more localised effects exist.

ULEZ was further expanded across all London boroughs on 29 August 2023, between the Post LTN-Interim (January 2023) and Post LTN-Now (November 2023) counts. Whilst Transport for London states that 95% of vehicles driving in London comply with ULEZ standards, it is considered that traffic behaviour may have been impacted by this scheme.

Data Patching

For this report, data was processed using SYSTRA's proprietary automated data processing tools, which draw together raw data from all reporting periods and apply formulae-based calculations to produce the following charts, tables and appendices.

However, as it is not uncommon for there to be problems with data surveys (broken equipment, cars parked on ATC bands etc.) as well as anomalous readings from surveys resulting from one-off events (waterworks, gas leaks, accidents etc.), all data has been thoroughly checked by hand and "patched" (i.e. blank data or significantly anomalous data has been substituted by more representative data from the site/wave in question), which is a necessary task in order to maintain comparable data.

Reporting

For the purpose of this report, the three study periods are referred to with the following terms:

Table 2: Monitoring Periods

Survey Period #	Survey dates	Report Designation
1	November 2021	Pre LTN (Nov-21)
2	January 2023	Post LTN-Interim (Jan-23)
3	November 2023	Post LTN-Now (Nov-23)

Analysis of Vehicle Volumes

All Motorised Vehicle Volumes (7-Day Daily Average)

This section outlines the changes in normalised volumes for all motorised vehicles, including cars (both private cars and taxis/company-owned cars), goods vehicles ranging from delivery vans to large articulated lorries, and motorcycles.

The total number of such motorised vehicles counted in the monitored week has been summed and divided by seven to create a daily average. If roads are less heavily used on weekends, it is possible that seven-day averages are slightly lower than five-day (weekday) averages – however, as usage patterns are expected to be similar between data collection rounds, this factor is not likely to materially impact the net and percentage changes in flows between the survey periods. The numbers presented have been rounded to the nearest whole number and raw/percentage changes calculated accordingly. It is noted that the number of cycles counted is not included in this analysis.

Map 4 below shows the total volume of vehicles recorded during the Pre LTN period (November 2021) on both boundary and internal roads, Map 5 shows the same data for the Post LTN-Interim period (January 2023), and Map 6 shows the same data for the Post LTN-Now period (November 2023). Map 7 then presents the percentage change in motorised vehicle volumes between the Pre LTN data (November 2021) and Post LTN-Now data (November 2023).

It is important that percentage change figures are considered in the context of raw/nominal changes, as presented in the tables, as a large percentage change could indicate a relatively minor change in actual vehicles counted on a particularly quiet road. Conversely, a busy road could see a small percentage change even if there the number of vehicles counted is quite different between the two monitored periods. In such cases, it is useful to compare data in Maps 4,5, and 6, or to refer to the tables for full context.

All tables depict normalised data. Further context for each site can be found in Appendix 5, which outlines the observed and normalised figures for all periods, as well as average flow profiles across the day.

Map 4: Pre LTN (Nov-21) Motorised Vehicles Volumes (Normalised)

Map 5: Post LTN-Interim (Jan-23) Motorised Vehicle Volumes (Normalised)

Volume of Daily Motorised Vehicles Post LTN-Interim

- Boundary Sites
- Internal Sites
- Bruce Grove West Green
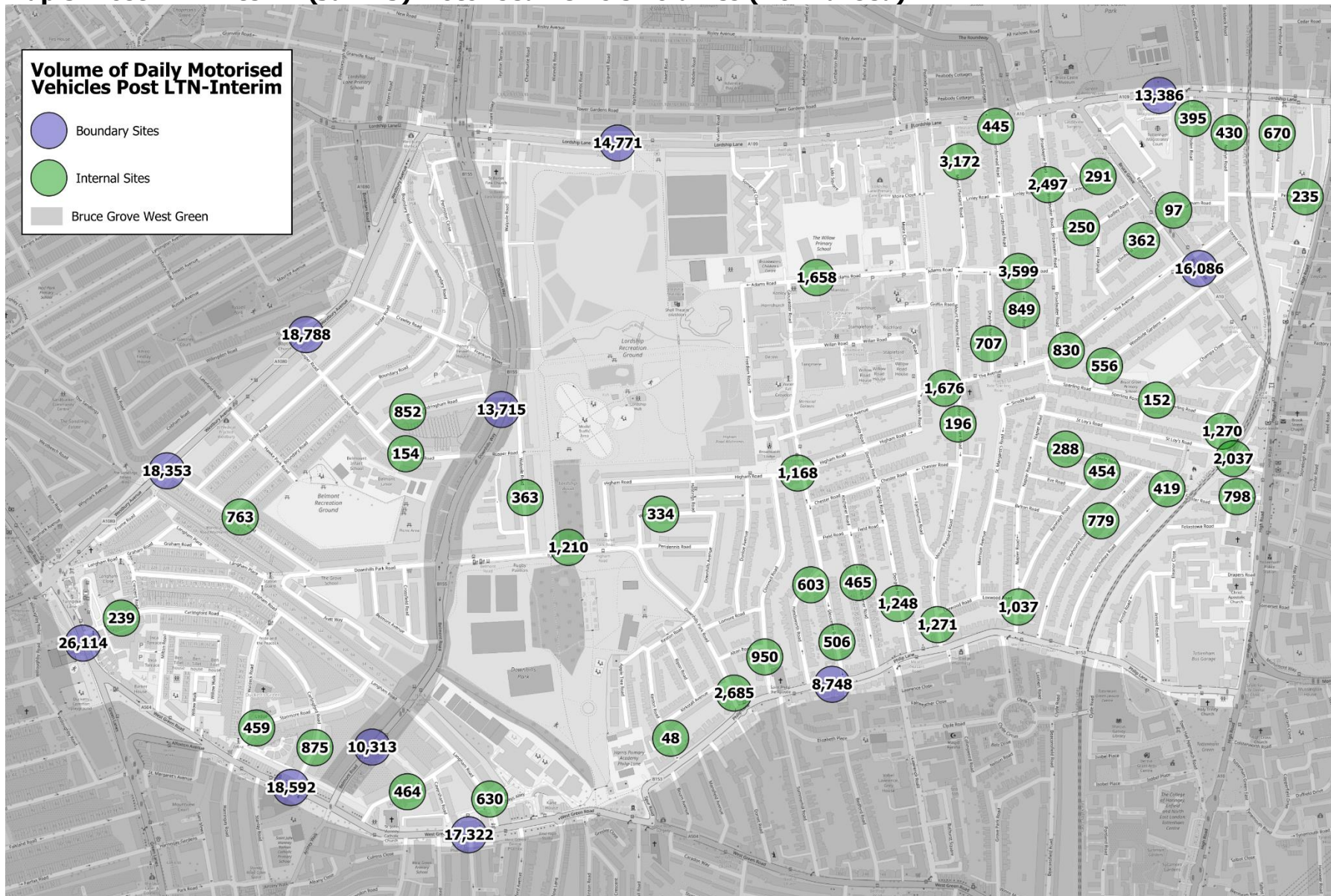
Map 6: Post LTN-Now (Nov-23) Motorised Vehicle Volumes

Map 7: Percentage Change in Motorised Vehicle Volumes: Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)

Table 3: Motorised Traffic Volumes on Internal Roads (Normalised)

	Pre LTN (Nov-21)	Post LTN-Interim (Jan-23)	Post LTN-Now (Nov-23)	Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	% Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
Adams Road	1,300	1,658	1,899	599	46%
Broadwater Road	2,570	2,497	2,171	-399	-16%
Carlingford Road	464	875	793	329	71%
Carlingford Road (@Crescent Road/Green Lanes)	2,245	239	305	-1,940	-86%
Chandos Road	2,426	849	823	-1,603	-66%
Clonmell Road	1,439	950	975	-464	-32%
Dongola Road	1,978	1,248	1,413	-565	-29%
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	6,193	2,685	3,231	-2,962	-48%
Downhills Park Road (@Downhills Park)	7,523	1,210	852	-6,671	-89%
Drayton Road	305	707	778	473	155%
Elmhurst Road	386	362	442	56	15%
Elsden Road	429	395	354	-75	-17%
Forster Road	998	798	773	-225	-23%
Gloucester Road	587	506	587	0	0%
Greyhound Road	640	779	844	204	32%
Handsworth Road	525	603	440	-85	-16%
Hartham Road	111	97	87	-24	-22%
Higham Road	3,275	1,168	1,164	-2,111	-64%
Keston Road	57	48	94	37	65%
Kitchener Road	729	465	580	-149	-20%
Langham Road	7,319	630	683	-6,636	-91%
Linley Road	989	291	696	-293	-30%
Lordsmead Road	2,498	445	427	-2,071	-83%
Mannock Road	2,153	763	675	-1,478	-69%
Moorefield Road	3,364	1,270	1,018	-2,346	-70%
Mount Pleasant Road (#145/The Avenue)	1,142	196	306	-836	-73%
Mount Pleasant Road (#316/Lordship Lane)	1,816	3,172	3,022	1,206	66%
Mount Pleasant Road (#5/Philip Lane)	1,713	1,271	1,243	-470	-27%
Napier Road	775	1,037	949	174	22%
Newlyn Road	675	430	405	-270	-40%
Pembury Road (#1/High Road)	1,334	235	265	-1,069	-80%
Pembury Road (#59/Lordship Lane)	1,028	670	632	-396	-39%
Radley Road	1,052	250	229	-823	-78%
Ranelagh Road	730	454	495	-235	-32%
Rusper Road	1,257	154	157	-1,100	-88%
Sandringham Road	439	852	909	470	107%
Sperling Road	1,163	152	199	-964	-83%
St. Loys Road	4,968	2,037	1,505	-3,463	-70%
Stanmore Road	1,647	459	543	-1,104	-67%
Steele Road	1,144	288	357	-787	-69%
The Avenue (@Broadwater Road)	1,998	830	868	-1,130	-57%

The Avenue (@Mount Pleasant Road/Marden Road)	4,473	1,676	1,708	-2,765	**-62%**
Vincent Road	914	464	472	-442	**-48%**
Walpole Road	681	363	345	-336	**-49%**
Wilmot Road	806	334	350	-456	**-57%**
Wimborne Road	3,629	3,599	3,652	23	1%
Winchelsea Road	827	419	439	-388	**-47%**
Woodside Gardens	345	556	589	244	**71%**
Total Internal Road	**85,059**	**41,436**	**41,743**	**-43,316**	**-51%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 4: Motorised Traffic Volumes on Boundary Roads (Normalised)

	Pre LTN (Nov-21)	Post LTN-Interim (Jan-23)	Post LTN-Now (Nov-23)	Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	% Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
A10 Bruce Grove (@The Avenue/Woodside Gardens)	15,292	16,086	16,247	955	6%
A105 Green Lanes (@Carlingford Road)	21,426	26,114	24,941	3,515	**16%**
A1080 Westbury Avenue (@Mannock Road)	15,789	18,353	15,776	-13	0%
A1080 Westbury Avenue (@Willingdon Road)	15,503	18,788	17,232	1,729	**11%**
A109 Lordship Lane (@Elsden Road)	15,744	13,386	13,089	-2,655	**-17%**
A109 Lordship Lane (@Waltheof Avenue)	13,320	14,771	14,893	1,573	**12%**
A504 West Green Road (@Carlingford Road)	14,690	18,592	19,713	5,023	**34%**
A504 West Green Road (@Etherley Road)	12,294	17,322	15,211	2,917	**24%**
B153 Philip Lane	10,727	8,748	8,576	-2,151	**-20%**
B155 Belmont Road	8,472	10,313	10,171	1,699	**20%**
B155 Downhills Way	19,088	13,715	11,574	-7,514	**-39%**
Total Boundary Roads	**162,345**	**176,188**	**167,423**	**5,078**	**3%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 5: Motorised Traffic Volumes on Key Internal Roads, Direction A (Normalised)

	Direction A	Pre LTN (Nov-21) Daily Flow	Post LTN-Interim (Jan-23) Daily Flow	Post LTN-Now (Nov-23) Daily Flow	Absolute Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	% Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
Carlingford Road (@W Green Road)	NB	194	360	348	154	79%
Carlingford Road (@Crescent Road/Green Lanes)	EB	987	129	148	-839	-85%
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	NB	3,551	1,302	1,851	-1,700	-48%
Downhills Park Road (@Downhills Park)	EB	3,670	608	433	-3,237	-88%
Langham Road	NB	3,421	312	325	-3,096	-90%
Mannock Road	NB	1,048	358	368	-680	-65%
St. Loys Road	EB	2,198	1,157	342	-1,856	-84%
Sandringham Road	EB	222	395	399	177	80%
The Avenue (@Mount Pleasant Road/Marden Road)	EB	3,202	1,185	1,104	-2,098	-66%
Wimborne Road	EB	3,625	3,588	3,561	-64	-2%
Adams Road	EB	465	527	599	134	29%

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 6: Motorised Traffic Volumes on Key Internal Roads, Direction B (Normalised)

	Direction B	Pre LTN (Nov-21) Daily Flow	Post LTN-Interim (Jan-23) Daily Flow	Post LTN-Now (Nov-23) Daily Flow	Absolute Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	% Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
Carlingford Road (@W Green Road)	WB	269	512	428	159	59%
Carlingford Road (@Crescent Road/Green Lanes)	SB	1,257	109	150	-1,107	-88%
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	SB	2,642	1,382	1,307	-1,335	-51%
Downhills Park Road (@Downhills Park)	WB	3,853	601	399	-3,454	-90%
Langham Road	WB	3,896	316	343	-3,553	-91%
Mannock Road	SB	1,104	402	307	-796	-72%
St. Loys Road	WB	2,770	879	1,129	-1,641	-59%
Sandringham Road	WB	217	455	510	293	135
The Avenue (@Mount Pleasant Road/Marden Road)	WB	1,271	493	566	-705	-55%
Adams Road	WB	834	1,129	1,257	423	51%

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 7: Motorised Traffic Volumes on Boundary Roads, Direction A (Normalised)

	Direction A	Pre LTN (Nov-21) Daily Flow	Post LTN-Interim (Jan-23) Daily Flow	Post LTN-Now (Nov-23) Daily Flow	Absolute Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	% Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
A10 Bruce Grove (@The Avenue/Woodside Gardens)	NB	6,901	7,548	7,273	372	5%
A105 Green Lanes (@Carlingford Road)	NB	10,761	13,342	12,191	1,430	13%
A1080 Westbury Avenue (@Mannock Road)	NB	8,196	9,219	7,635	-561	-7%
A1080 Westbury Avenue (@Willingdon Road)	NB	7,668	9,214	8,997	1,329	17%
A109 Lordship Lane (@Elsden Road)	EB	7,279	6,402	5,817	-1,462	-20%
A109 Lordship Lane (@Waltheof Avenue)	EB	6,295	7,191	6,819	524	8%
A504 West Green Road (@Carlingford Road)	EB	7,653	9,219	9,175	1,522	20%
A504 West Green Road (@Etherley Road)	EB	6,627	9,344	8,150	1,523	23%
B153 Philip Lane	EB	4,717	3,977	3,915	-802	-17%
B155 Belmont Road	NB	3,310	3,680	3,551	241	7%
B155 Downhills Way	NB	8,567	4,670	4,526	-4,041	-47%

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 8: Motorised Traffic Volumes on Boundary Roads, Direction B (Normalised)

	Direction B	Pre LTN (Nov-21) Daily Flow	Post LTN-Interim (Jan-23) Daily Flow	Post LTN-Now (Nov-23) Daily Flow	Absolute Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	% Difference Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
A10 Bruce Grove (@The Avenue/Woodside Gardens)	SB	8,391	8,538	8,611	220	3%
A105 Green Lanes (@Carlingford Road)	SB	10,665	12,772	12,191	1,526	14%
A1080 Westbury Avenue (@Mannock Road)	SB	7,593	9,134	7,787	194	3%
A1080 Westbury Avenue (@Willingdon Road)	SB	7,835	9,574	7,849	14	0%
A109 Lordship Lane (@Elsden Road)	WB	8,465	6,984	6,979	-1,486	-18%
A109 Lordship Lane (@Waltheof Avenue)	WB	7,025	7,580	7,739	714	10%
A504 West Green Road (@Carlingford Road)	WB	7,037	9,373	10,096	3,059	43%
A504 West Green Road (@Etherley Road)	WB	5,666	7,977	6,720	1,054	19%
B153 Philip Lane	WB	6,010	4,771	4,469	-1,541	-26%
B155 Belmont Road	SB	5,162	6,633	6,392	1,230	24%
B155 Downhills Way	SB	10,521	9,045	6,789	-3,732	-35%

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Insights: All Motorised Vehicle Volumes

When comparing normalised flows between the November 2021 Pre LTN and November 2023 Post LTN-Now surveys, total motorised vehicle volumes have declined for most internal roads within the Bruce Grove West Green LTN area, with limited percentage increases on scheme boundary roads. Overall, 43,316 fewer vehicles were counted across internal roads, equating to an overall decrease of 51% in such volumes, whilst the number of vehicles counted on boundary roads increased by just over 5,000 vehicles (from 162,345 to 167,423), a 3% increase from the November 2021 Pre LTN counts.

On internal roads, Downhills Park Road (@Downhills Park) saw the most substantial decrease in daily motorised vehicles, of 6,671, which is equivalent to a decrease of 89%. Similarly, Langham Road experienced a large reduction in traffic flows, decreasing by 6,636 daily vehicles, which equates to a 91% decrease when compared to Pre LTN normalised flows. As the traffic filter on Langham Road no longer permits through-traffic (explaining much of the large decrease), some vehicles still accessing this sub-cell are now continuing via B155 Belmont Road (boundary road), which has seen an increase of 1,699 daily vehicles (+20%). On a more general scale, 36 of the 48 internal sites saw decreases, with 15 sites seeing decreases of over 1,000 daily vehicles; similarly, 19 sites saw a decrease of more than 50% in their total traffic.

Traffic nonetheless increased on several internal roads between November 2021 and November 2023. Mount Pleasant Road (#316/Lordship Lane) experienced the highest increase with an additional 1,206 daily motorised vehicles (+66%), as this is one of the remaining accesses to the northeast sub-cell of the scheme. Adams Road also saw an increase of nearly 600 daily vehicles, and both Drayton Road and Sandringham Roads saw increases approaching 500 vehicles per day. Handsworth Road, which had seen a 15% increase in traffic at Post LTN-Interim stage, has seen a net decrease of 16% in vehicles counted overall.

On boundary roads, there has been a 3% increase in normalised Post LTN-Now (November 2023) traffic flows in comparison to Pre LTN (November 2021), which equates to 5,078 additional vehicles counted. The most significant increase by volume was experienced on A504 West Green Road (@Carlingford Road) which observed an additional 5,023 daily motorised vehicles in November 2023 (+34%). A105 Green Lanes (@Carlingford Road) observed an additional 3,515 vehicles (although down over 1,000 daily vehicles since Post LTN-Interim stage), and A504 West Green Road (@Etherley Road) observed an additional 2,917 vehicles (again, down over 2,000 vehicles since Post LTN-Interim stage). Trends on boundary roads indicate that there is an increase in traffic on West Green Road, which bounds the Bruce Grove West Green scheme to its south and St. Ann's scheme to its north – as well as at the northern section of A105 Green Lanes (@Carlingford Road) directly to the west of the scheme area.

However, several boundary roads also observed significant decreases, such as B155 Downhills Way which saw 7,514 fewer motorised

vehicles (with an additional >2,000 vehicle decrease since Post LTN-Interim), and A109 Lordship Lane (@Elsden Road) which saw 2,655 fewer vehicles. Notably, boundary roads saw an overall 9% increase at Post LTN-Interim stage, which has reduced significantly to 3% in the most recent round of monitoring.

When observing directional data, it is noted that traffic flows compared to Pre LTN data decreased in both directions on all internal roads except for Carlingford Road (@West Green Road) (+154 vehicles northbound, +159 southbound), and Adams Roads (+134 vehicles eastbound, +423 westbound). On boundary roads, B155 Downhills Way saw the greatest decrease in both direction (-4,041 northbound, -3,732 southbound). A109 Lordship Lane (@Elsden Road) and B153 Philip Lane saw the next most significant decreases in both directions. A504 West Green Road (@Carlingford Road) and A504 West Green Road (@Etherley Road) both saw the more significant increases in the eastbound direction, this was the case for A504 West Green Road (@Carlingford Road) westbound direction.

It is to be noted that in normalised and observed Percentage differences between different survey periods indicate the same or very similar results. Ultimately, these findings indicate that the total volume of traffic on internal roads has decreased considerably since the Bruce Grove West Green LTN trial was implemented. As in the previous round of monitoring the picture is more mixed on boundary roads and will require further monitoring by the council.

Goods Vehicles Volumes (5-Day Daily Average)

This section outlines the changes in normalised traffic volumes for Light Goods Vehicles and Heavy Goods Vehicles.

LGV stands for Light Goods Vehicle. This is defined, for the purposes of this report (which may differ from other traffic monitoring reports) as a rigid two-axle van, such as the type of van commonly used for deliveries.

HGV stands for Heavy Goods Vehicle, which is a goods vehicle larger than the type of van described above.

The results shown are for 5-day average weekday volumes, excluding weekends. This is because goods vehicle traffic is generally lower at weekends, therefore the weekday data gives a better impression of actual impacts by not masking this.

Similarly, the % numbers given are percentages of total motorised traffic, rather than all vehicles counted, so the comparison to cycles is not considered. Changes in the proportion of LGV/HGV compared to total motorised traffic (or" prevalence" of such vehicles) is presented as a percentage point difference, although the actual percentage change for vehicles is also presented.

According to data released by the Department for Transport in 2022 and updated in July 2024, the number of registered LGVs and HGVs has grown at different rates between the Pre LTN monitoring period and the Post LTN-Now monitoring period. This is set out in Graph 2 on the overleaf, which shows the indexed growth of both vehicle types since the start of 2021. From around Q3 2022 onwards, the growth in registrations begins to diverge, and by the Post LTN-Now period of Q4 2023, LGV volumes had grown by 3.7% vs. only 1.1% growth for HGVs.

Whilst more local data for this comparison is not available, it is considered that the above trend for high growth in LGVs and more muted growth in HGVs may be more extreme in London due to the ULEZ and its expansion in August 2023, which would further penalise the use of petrol or diesel-based HGVs vs. potentially electric LGVs, thus incentivising companies to more frequently rely on LGVs.

This context should be taken into account when considering the results for the Bruce Grove West Green scheme.

Graph 2: Index of LGVs vs. HGVs Registered in Great Britain, Q1 2021-Q1 2024
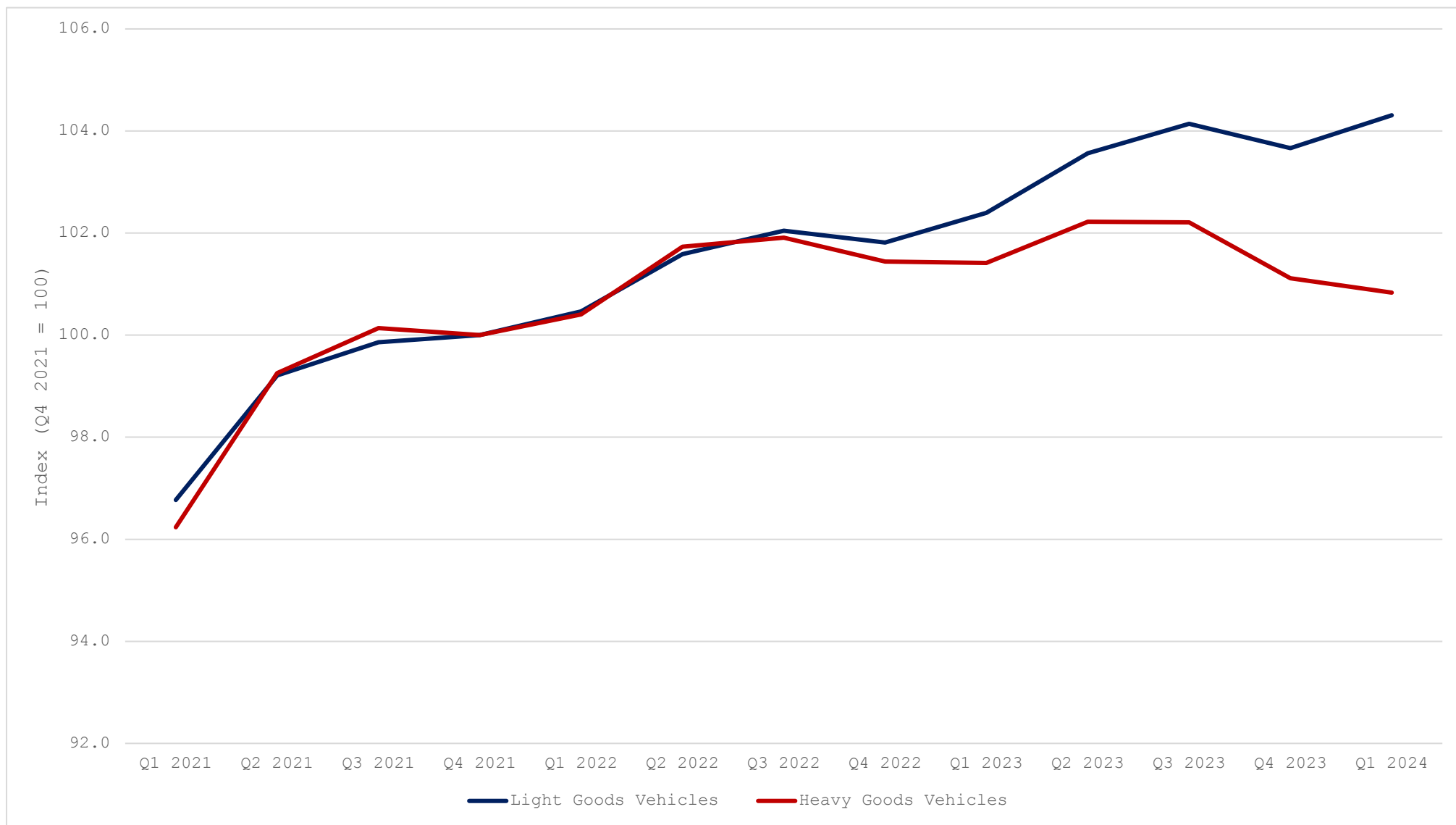
Table 9: Heavy Goods Vehicle Volumes on Internal Roads (Normalised)

	Volume Pre LTN: Nov-21	Proportion Pre LTN: Nov-21	Volume Post LTN-Interim: Jan-23	Proportion Post LTN-Interim: Jan-23	Volume Post LTN-Now: Nov-23	Proportion Post LTN-Now: Nov-23	Change in Volume Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	Change in Proportion Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
Adams Road	31	2%	63	4%	33	2%	2	0%
Broadwater Road	92	3%	14	1%	15	1%	-77	-2%
Carlingford Road (@West Green Road)	4	1%	43	5%	7	1%	3	0%
Carlingford Road (@Crescent Road/Green Lanes)	21	1%	19	8%	14	5%	-7	4%
Chandos Road	10	0%	3	0%	3	0%	-7	0%
Clonmell Road	18	1%	5	1%	10	1%	-8	0%
Dongola Road	59	3%	4	0%	6	0%	-53	-3%
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	80	1%	103	4%	119	4%	39	3%
Downhills Park Road (@Downhills Park)	222	3%	45	3%	16	2%	-206	-1%
Drayton Road	14	4%	6	1%	3	0%	-11	-4%
Elmhurst Road	5	1%	2	1%	19	4%	14	3%
Elsden Road	13	3%	4	1%	3	1%	-10	-2%
Forster Road	4	0%	9	1%	5	1%	1	1%
Gloucester Road	8	1%	38	8%	9	2%	1	1%
Greyhound Road	29	5%	5	1%	12	1%	-17	-4%
Handsworth Road	11	2%	67	11%	8	2%	-3	0%
Hartham Road	1	1%	4	4%	2	2%	1	1%
Higham Road	247	7%	92	7%	114	9%	-133	2%
Keston Road	1	1%	-	0%	1	1%	0	0%
Kitchener Road	6	1%	21	5%	33	6%	27	5%
Langham Road	175	2%	6	1%	25	4%	-150	2%
Linley Road	10	1%	8	3%	38	5%	28	4%
Lordsmead Road	54	2%	17	4%	2	0%	-52	-2%
Mannock Road	16	1%	16	2%	6	1%	-10	0%
Moorefield Road	175	5%	58	5%	31	3%	-144	-2%
Mount Pleasant Road (#145/The Avenue)	3	0%	3	1%	8	2%	5	2%
Mount Pleasant Road (#316/ Lordship Lane)	73	4%	9	0%	70	2%	-3	-2%
Mount Pleasant Road (#5/Philip Lane)	9	1%	7	1%	7	1%	-2	0%

Napier Road	7	1%	45	4%	12	1%	5	0%
Newlyn Road	3	0%	1	0%	20	5%	17	5%
Pembury Road (#1/High Road)	11	1%	11	4%	4	1%	-7	0%
Pembury Road (#59/Lordship Lane)	20	2%	5	1%	5	1%	-15	-1%
Radley Road	33	3%	18	7%	2	1%	-31	-2%
Ranelagh Road	9	1%	2	0%	3	1%	-6	0%
Rusper Road	9	1%	8	5%	2	1%	-7	0%
Sandringham Road	1	0%	6	1%	10	1%	9	1%
Sperling Road	8	1%	4	3%	5	3%	-3	2%
St. Loys Road	118	2%	26	1%	10	1%	-108	-1%
Stanmore Road	12	1%	2	0%	44	8%	32	7%
Steele Road	4	0%	4	1%	6	2%	2	2%
The Avenue (@Broadwater Road)	25	1%	36	4%	8	1%	-17	0%
The Avenue (@Mount Pleasant Road/Marden Road)	224	5%	76	4%	16	1%	-208	-4%
Vincent Road	2	0%	2	0%	1	0%	-1	0%
Walpole Road	2	0%	1	0%	22	6%	20	6%
Wilmot Road	2	0%	1	0%	32	9%	30	9%
Wimborne Road	12	0%	265	7%	17	0%	5	0%
Winchelsea Road	2	0%	1	0%	16	4%	14	4%
Woodside Gardens	2	1%	3	1%	29	5%	27	4%
Total/Average Internal Road	**1,897**	**3%**	**1,188**	**5%**	**883**	**4%**	**-1,014**	**1%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 10: Light Goods Vehicle Volumes on Internal Roads (Normalised)

	Volume Pre LTN: Nov-21	Proportion Pre LTN: Nov-21	Volume Post LTN-Interim: Jan-23	Proportion Post LTN-Interim: Jan-23	Volume Post LTN-Now: Nov-23	Proportion Post LTN-Now: Nov-23	Change in Volume Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	Change in Proportion Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
Adams Road	124	9%	111	6%	74	4%	-50	-5%
Broadwater Road	225	9%	195	8%	192	9%	-33	0%
Carlingford Road (@West Green Road)	50	11%	17	2%	79	10%	29	-1%
Carlingford Road (@Crescent Road/Green Lanes)	238	10%	5	2%	25	8%	-213	-2%
Chandos Road	174	7%	92	11%	73	9%	-101	2%
Clonmell Road	71	5%	74	8%	95	10%	24	5%
Dongola Road	31	2%	27	2%	173	12%	142	**10%**
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	501	8%	245	9%	75	2%	-426	-6%
Downhills Park Road (@Downhills Park)	477	6%	288	22%	307	33%	-170	**27%**
Drayton Road	17	5%	73	11%	61	8%	44	3%
Elmhurst Road	26	7%	48	14%	9	2%	-17	-5%
Elsden Road	25	5%	36	9%	25	7%	0	2%
Forster Road	64	6%	47	6%	60	8%	-4	2%
Gloucester Road	49	8%	14	3%	32	5%	-17	-3%
Greyhound Road	24	4%	74	10%	73	9%	49	5%
Handsworth Road	37	7%	5	1%	33	7%	-4	0%
Hartham Road	0	0%	1	1%	N/A	0%	N/A	0%
Higham Road	177	5%	88	7%	141	12%	-36	7%
Keston Road	3	4%	1	2%	7	6%	4	2%
Kitchener Road	36	5%	28	6%	19	3%	-17	-2%
Langham Road	465	6%	78	12%	78	11%	-387	5%
Linley Road	104	10%	23	8%	34	5%	-70	-5%
Lordsmead Road	184	7%	32	7%	49	11%	-135	4%
Mannock Road	140	6%	40	5%	59	8%	-81	2%
Moorefield Road	106	3%	88	7%	46	5%	-60	2%
Mount Pleasant Road (#145/The Avenue)	83	7%	19	9%	5	2%	-78	-5%
Mount Pleasant Road (#316/Lordship Lane)	68	4%	341	11%	173	6%	105	2%
Mount Pleasant Road (#5/Philip Lane)	145	8%	121	9%	155	12%	10	4%

Napier Road	58	8%	46	4%	74	8%	16	0%
Newlyn Road	69	10%	65	15%	27	6%	-42	-4%
Pembury Road (#1/High Road)	99	7%	4	2%	17	6%	-82	-1%
Pembury Road (#59/Lordship Lane)	80	8%	70	11%	62	10%	-18	2%
Radley Road	152	13%	23	9%	110	47%	-42	**34%**
Ranelagh Road	40	6%	43	9%	44	9%	4	3%
Rusper Road	95	7%	5	3%	18	12%	-77	5%
Sandringham Road	50	11%	95	11%	96	10%	46	-1%
Sperling Road	68	6%	16	10%	26	13%	-42	7%
St. Loys Road	341	6%	300	15%	129	9%	-212	3%
Stanmore Road	223	12%	56	12%	1	0%	-222	**-12%**
Steele Road	97	9%	32	11%	44	12%	-53	3%
The Avenue (@Broadwater Road)	268	14%	159	19%	186	21%	-82	7%
The Avenue (@Mount Pleasant Road/Marden Road)	222	5%	125	7%	300	17%	78	**12%**
Vincent Road	87	9%	54	11%	60	12%	-27	3%
Walpole Road	66	9%	49	13%	12	4%	-54	-5%
Wilmot Road	167	20%	134	39%	32	9%	-135	**-11%**
Wimborne Road	136	4%	205	6%	152	4%	16	0%
Winchelsea Road	38	5%	30	7%	2	0%	-36	-5%
Woodside Gardens	34	10%	65	12%	16	3%	-18	-7%
Total/Average Internal Road	**6,034**	**8%**	**3,787**	**12%**	**3,560**	**13%**	**-2,474**	**5%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 11: Heavy Goods Vehicle Volumes on Boundary Roads (Normalised)

	Volume Pre LTN: Nov-21	Proportion Pre LTN: Nov-21	Volume Post LTN-Interim: Jan-23	Proportion Post LTN-Interim: Jan-23	Volume Post LTN-Now: Nov-23	Proportion Post LTN-Now: Nov-23	Change in Volume Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	Change in Proportion Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
A10 Bruce Grove (@The Avenue/Woodside Gardens)	175	1%	137	1%	1,486	9%	1,311	8%
A105 Green Lanes (@Carlingford Road)	797	4%	934	4%	596	2%	-201	-2%
A1080 Westbury Avenue (@Mannock Road)	366	2%	226	1%	221	1%	-145	-1%
A1080 Westbury Avenue (@Willingdon Road)	478	3%	727	4%	577	3%	99	0%
A109 Lordship Lane (@Elsden Road)	353	2%	488	3%	173	1%	-180	-1%
A109 Lordship Lane (@Waltheof Avenue)	217	2%	306	2%	777	5%	560	3%
A504 West Green Road (@Carlingford Road)	511	3%	773	4%	1,134	6%	623	3%
A504 West Green Road (@Etherley Road)	810	7%	635	4%	317	2%	-493	-5%
B153 Philip Lane	250	2%	359	4%	125	1%	-125	-1%
B155 Belmont Road	440	5%	604	6%	91	1%	-349	-4%
B155 Downhills Way	184	1%	411	3%	84	1%	-100	0%
Total / Average Boundary Roads*	**4,581**	**4%**	**5,600**	**4%**	**5,581**	**5%**	**1,000**	**1%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 12: Light Goods Vehicle Volumes on Boundary Roads (Normalised)

	Volume Pre LTN: Nov-21	Proportion Pre LTN: Nov-21	Volume Post LTN-Interim: Jan-23	Proportion Post LTN-Interim: Jan-23	Volume Post LTN-Now: Nov-23	Proportion Post LTN-Now: Nov-23	Change in Volume Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	Change in Proportion Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
A10 Bruce Grove (@The Avenue/Woodside Gardens)	1,376	9%	1,256	8%	7	0%	-1,369	-9%
A105 Green Lanes (@Carlingford Road)	1,354	6%	885	3%	1,625	7%	271	1%
A1080 Westbury Avenue (@Mannock Road)	1,356	9%	2,175	12%	1,461	9%	105	0%
A1080 Westbury Avenue (@Willingdon Road)	1,192	8%	1,280	7%	800	5%	-392	-3%
A109 Lordship Lane (@Elsden Road)	521	3%	1,193	8%	1,320	10%	799	7%
A109 Lordship Lane (@Waltheof Avenue)	1,569	11%	1,546	10%	700	5%	-869	-6%
A504 West Green Road (@Carlingford Road)	1,065	7%	951	5%	368	2%	-697	-5%
A504 West Green Road (@Etherley Road)	425	3%	728	4%	1,989	13%	1,564	**10%**
B153 Philip Lane	905	8%	554	6%	1,287	15%	382	7%
B155 Belmont Road	141	2%	404	4%	935	9%	794	7%
B155 Downhills Way	1,749	9%	525	4%	1,233	10%	-516	1%
Total/Average Boundary Road*	**11,653**	**8%**	**11,497**	**8%**	**11,725**	**9%**	**72**	**1%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle

journeys counted is certain to be higher than the actual number of trips taken.

Insights: Goods Vehicles Volumes

The volume of goods vehicles during weekdays would generally be expected to decrease significantly on internal roads and increase slightly on boundary roads, in line with broader trends for motorised vehicles (although noting motorised vehicle trends above are for full, seven-day weeks). It is also expected that where traffic levels decrease, LGVs/HGVs may make up a higher proportion of remaining traffic, as routing choices for these vehicles are typically less flexible than for general traffic, likely because a higher percentage of LGVs and HGVs need to drop off or pick up at specific households within the LTN area than is seen for general traffic. For individual internal roads, changes in vehicle flows often translate to large percentage changes (based on low initial volumes), so it is generally more useful to look at changes in actual vehicles. It can also be useful to look at the prominence of certain vehicle types, as a considerable change in prominence (percentage of LGV/HGV out of total vehicles) may indicate a trend that is different than that of general traffic.

On internal roads, LGVs decreased by 2,474 vehicles (-41%[1]), and HGVs decreased by 1,014 vehicles (-53%), but as expected the proportion of LGVs increased by 5%, and HGVs by 1%. Carlingford Road (@Crescent Road / Green Lanes) (-213 vehicles), Downhills Park Road (@Kirkstall Avenue/Philip Lane) (-426 vehicles), Langham Road (-387 vehicles), St. Loys Road (-212 vehicles) and Stanmore Roads (-222 vehicles) saw decreases of over 200 LGVs. In contrast, Dongola Road saw an increase of 142 LGVs, and Mount Pleasant Road (#316/Lordship Lane) saw an increase of 105 daily LGVs. There were 1,014 fewer HGVs between November 2021 and November 2023 overall. Downhills Park Road (@Downhills Park) (-206) and The Avenue (@Mount Pleasant Road/Marden Road) (-208) saw decreases of over 200 daily HGVs. The highest increase in HGVs was observed at Downhills Park Road (@Kirkstall Avenue/Philip Lane), with 39 additional daily HGVs, but this was eclipsed by a decrease of over 200 daily HGVs at the Downhills Park Road site closer to Downhills Park, which likely follows the HGV ban on Downhills Way. While Downhills Park Road (@Kirkstall Avenue/Philip Lane) saw a decrease in LGVs of 6% since November 2021, Downhills Park Road (@Downhills Park) saw a 27% increase in LGVs, perhaps replacing some of the now-banned HGV trips. It is noted that Radley Road's LGV volumes did not fall nearly as much as general traffic.

The volume of LGVs and HGVs increased on boundary roads, more importantly for HGVs (+1,000) than for LGVs (+72). On most boundary roads, a decrease in LGVs was accompanied by an increase in HGVs, and vice versa. For instance, A10 Bruce Grove (@The Avenue/Woodside Gardens) saw a decrease of 1,369 LGVs but an increase of 1,311 HGVs. A504 West Green Road (@Carlingford Road) saw a decrease of 697 LGVs but an increase of 623. HGVs. A504 West Green Road (@Etherley Road) saw an increase of 1,564 LGVs but a decrease of 493 HGVs. B155 Belmont Road saw 794 additional LGVs but a reduction of 349 HGVs. Only B155 Downhills Way saw a reduction in both LGVs (-516) and HGVs (-100).

---

[1] Percentages are calculated directly from the tables of LGV/HGV flows.

Overall, volumes of goods vehicles decreased considerably on internal roads and increased slightly on boundary roads. It is noted that these increases reflect national trends, where by the number of deliveries resulting from the surge in online shopping has increased.

Motorcycle Volumes (7-Day Daily Average)

Motorcycle volumes are considered separately from other vehicles as they are occasionally able to travel through neighbourhood blocks using filters and streets in manners that cars and lorries cannot (for example by illegally using cycle filters). Similarly, they have seen quite different trends from other motorised vehicles given their prevalence following COVID-19 and the spike in deliveries made by motorcycle in London. As such, a metric of "motorcycles as a proportion of total motorised traffic" has been included in the tables of this section to assess whether changes in the volume of motorcycles differs from wider trends in motorised vehicles.

Motorcycles are distinguished from pedal cycles in ATC counters by the weight and spacing of the vehicle tyres.

Table 13: Motorcycle Volumes on Internal Roads (Normalised)

	Volume Pre LTN: Nov-21	Proportion Pre LTN: Nov-21	Volume Post LTN-Interim: Jan-23	Proportion Post LTN-Interim: Jan-23	Volume Post LTN-Now: Nov-23	Proportion Post LTN-Now: Nov-23	Change in Volume Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	Change in Proportion Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
Adams Road	46	4%	52	3%	66	3%	43%	-1%
Broadwater Road	136	5%	115	5%	136	6%	0%	1%
Carlingford Road (@West Green Road)	72	16%	38	4%	88	11%	22%	-5%
Carlingford Road (@Crescent Road/Green Lanes)	286	13%	34	14%	45	15%	-84%	2%
Chandos Road	52	2%	56	7%	58	7%	12%	5%
Clonmell Road	126	9%	73	8%	92	9%	-27%	0%
Dongola Road	91	5%	118	9%	121	9%	33%	4%
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	299	5%	225	8%	208	6%	-30%	1%
Downhills Park Road (@Downhills Park)	336	4%	111	9%	54	6%	-84%	2%
Drayton Road	22	7%	49	7%	68	9%	209%	2%
Elmhurst Road	25	6%	26	7%	47	11%	88%	5%
Elsden Road	36	8%	52	13%	32	9%	-11%	1%
Forster Road	93	9%	77	10%	107	14%	15%	5%
Gloucester Road	39	7%	41	8%	50	9%	28%	2%
Greyhound Road	56	9%	78	10%	100	12%	79%	3%
Handsworth Road	30	6%	39	6%	37	8%	23%	2%
Hartham Road	87	78%	71	73%	65	75%	-25%	-3%
Higham Road	188	6%	75	6%	68	6%	-64%	0%
Keston Road	14	25%	10	21%	14	15%	0%	-10%
Kitchener Road	47	6%	59	13%	55	9%	17%	3%
Langham Road	213	3%	54	9%	64	9%	-70%	6%
Linley Road	54	5%	22	7%	44	6%	-19%	1%
Lordsmead Road	109	4%	31	7%	35	8%	-68%	4%
Mannock Road	185	9%	90	12%	101	15%	-45%	6%
Moorefield Road	255	8%	108	9%	127	12%	-50%	4%
Mount Pleasant Road (#145/The Avenue)	44	4%	24	12%	38	12%	-14%	8%
Mount Pleasant Road (#316/Lordship Lane)	79	4%	164	5%	157	5%	99%	1%
Mount Pleasant Road (#5/Philip Lane)	108	6%	139	11%	147	12%	36%	6%
Napier Road	65	8%	129	12%	115	12%	77%	4%
Newlyn Road	76	11%	47	11%	37	9%	-51%	-2%
Pembury Road (#1/High Road)	124	9%	36	15%	14	5%	-89%	-4%
Pembury Road (#59/Lordship Lane)	99	10%	63	9%	40	6%	-60%	-4%
Radley Road	45	4%	14	6%	24	10%	-47%	6%
Ranelagh Road	57	8%	53	12%	70	14%	23%	6%
Rusper Road	120	10%	29	19%	26	17%	-78%	7%
Sandringham Road	49	11%	49	6%	47	5%	-4%	-6%
Sperling Road	134	12%	26	17%	22	11%	-84%	-1%
St. Loys Road	417	8%	187	9%	105	7%	-75%	-1%
Stanmore Road	73	4%	40	9%	47	9%	-36%	5%

	Volume Pre LTN: Nov-21	Proportion Pre LTN: Nov-21	Volume Post LTN-Interim: Jan-23	Proportion Post LTN-Interim: Jan-23	Volume Post LTN-Now: Nov-23	Proportion Post LTN-Now: Nov-23	Change in Volume Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	Change in Proportion Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
Steele Road	61	5%	31	11%	35	10%	**-43%**	5%
The Avenue (@Broadwater Road)	136	7%	73	9%	64	7%	**-53%**	0%
The Avenue (@Mount Pleasant Road/Marden Road)	212	5%	113	7%	108	6%	**-49%**	1%
Vincent Road	47	5%	30	6%	34	7%	**-28%**	2%
Walpole Road	65	9%	27	7%	24	7%	**-63%**	-2%
Wilmot Road	42	5%	14	4%	12	3%	**-71%**	-2%
Wimborne Road	76	2%	187	5%	202	6%	**166%**	4%
Winchelsea Road	63	8%	47	11%	47	11%	**-25%**	3%
Woodside Gardens	23	7%	42	8%	35	6%	**52%**	-1%
Total / Average Internal Road*	**5,112**	**8%**	**3,268**	**10%**	**3,332**	**10%**	**-35%**	**2%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 14: Motorcycle Volumes on Boundary Roads (Normalised)

	Volume Pre LTN: Nov-21	Proportion Pre LTN: Nov-21	Volume Post LTN-Interim: Jan-23	Proportion Post LTN-Interim: Jan-23	Volume Post LTN-Now: Nov-23	Proportion Post LTN-Now: Nov-23	Change in Volume Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)	Change in Proportion Post LTN-Now vs. Pre LTN (Nov-23 vs. Nov-21)
A10 Bruce Grove (@The Avenue/Woodside Gardens)	988	6%	1,213	8%	1,175	7%	**19%**	1%
A105 Green Lanes (@Carlingford Road)	993	5%	1,112	4%	1,116	4%	**12%**	-1%
A1080 Westbury Avenue (@Mannock Road)	756	5%	753	4%	763	5%	1%	0%
A1080 Westbury Avenue (@Willingdon Road)	626	4%	666	4%	680	4%	9%	0%
A109 Lordship Lane (@Elsden Road)	508	3%	612	5%	637	5%	**25%**	2%
A109 Lordship Lane (@Waltheof Avenue)	794	6%	968	7%	884	6%	**11%**	0%
A504 West Green Road (@Carlingford Road)	841	6%	953	5%	894	5%	6%	-1%
A504 West Green Road (@Etherley Road)	717	6%	901	5%	1,002	7%	**40%**	1%
B153 Philip Lane	538	5%	611	7%	678	8%	**26%**	3%
B155 Belmont Road	219	3%	311	3%	348	3%	**59%**	0%
B155 Downhills Way	429	2%	410	3%	457	4%	0	2%
Total/Average Boundary*	**7,409**	**5%**	**8,510**	**5%**	**8,634**	**5%**	**17%**	**0%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Insights: Motorcycle Volumes

As with goods vehicles, it would be expected that motorcycle flows broadly reflect the trends in overall motor vehicle traffic, for example large decreases on internal roads and slight increases on boundary roads.

As with goods vehicles, between November 2021 and November 2023, motorcycle volumes decreased across most internal roads, with a 35% decrease in motorcycles (-1,780 per day); however, there was an increase in proportion of 2 percentage points. Many roads saw a decrease in motorcycles volumes but a slight increase in term of proportion. St Loys Road saw the most significant decrease, with a decrease of 312 motorcycles (-75%), followed by and Downhills Park Road (@Downhills Park) with a decrease of 282 motorcycles (-84%). Nevertheless, certain roads observed increases in motorcycle volumes, the most prominent being Wimborne Road (+126 motorcycles, +166%).

Boundary roads observed an increase of 1,225 motorcycles (17%). However, this does not affect the proportion of motorcycles on boundary roads, which remains at 5%. All boundary roads saw an increase in motorcycle volumes between November 2021 and November 2023, the most prominent increases being on A504 West Green Road (@Etherley Road), with an increase of 285 motorcycles (+40%) and A10 Bruce Grove (@The Avenue/Woodside Gardens) with an increase of 187 motorcycles (+19%). However, both A105 Green Lanes (@Carlingford Road) and A504 West Green Road (@Carlingford Road) observed decreases in proportion of 1%.

Overall, it appears that motorcycle volumes tend to follow the general trend of motorised vehicles (decrease for internal roads and increase for boundary roads).

Cycle Volumes (7-Day Daily Average)

Cycling figures have not been normalised to account for COVID-19 due to the lack of an available source that provides continuous month-to-month cycling levels encompassing all types of cycling trips (commute and leisure) and is at a sufficiently local geographic scale to form a meaningful and robust benchmark. Indeed, available background sources for cycling data are highly varied.

Unlike motorised traffic trends, cycling levels are significantly impacted by seasonal and daily weather changes including in temperature and rainfall; for example, there is normally much more cycling participation in July than in January, and therefore there are significantly more cycle trips completed in July than January – although even this is different year-to-year. There are several interlinked factors when it comes to the impact seasonal weather variation has on cycling levels, and weather can still vary within a season, a month or even a day. As an indication of the impact weather can have, one 2011 study found a doubling in temperature could lead up to a 50% increase in cycling levels, before having a negative impact if too high (Study by Miranda-Moreno and Nosal, 2011).

During the month in which Pre LTN counts were conducted (November 2021), the average temperature in Greater London was 9°C, with average highs of 11°C and average lows of 7°C. Post LTN-Now counts, taken in November 2023, show an average temperature of 9°C, with average highs of 11°C and average lows of 6°C. However, levels of precipitation were considerably higher in November 2023 than in November 2021, with rainfall at the nearest national counter (Heathrow) measured at 78.4mm in the month of the Post LTN-Now counts and 10.2mm measured in the month of the Pre LTN counts. This indicates that generally, whilst temperatures in the Post LTN-Now data collection period were similar to those collected in the Pre LTN period, the Post LTN-Now period saw considerably higher rainfall levels, which may have reduced cycling levels.

Considering these caveats, it is also important to note that government regulations and COVID-19 guidance have significantly impacted wider cycling trends, particularly since March 2020 (data from DfT's Official Statistics). Graph 3 on the next page shows, on a national basis, the number of cycle trips completed since March 2013. This typically indicates that whilst cycling grew rapidly in popularity through 2020 and early 2021, volumes of cycling trips dropped sharply leading into the summer of 2021 and have continued to decline since – today they are at more or less pre-COVID levels. In contrast, data from Transport for London's 2023 Annual Overview indicates that the number of cycle stages/journeys in Inner London boroughs (including Haringey) increased by 8.2% between 2022-2023, noting that this is full-year data and does not neatly map onto the months considered in the monitoring approach.

Route choices made by people cycling will also be impacted by the availability of nearby protected cycle infrastructure and less traffic-dominated neighbourhoods.

Graph 3 below outlines nationwide cycling trends, with the following maps and tables outlining the Pre LTN cycling levels and how these have changed between data collection phases.

**Graph 3: National Cycling Levels – Since December 2013**
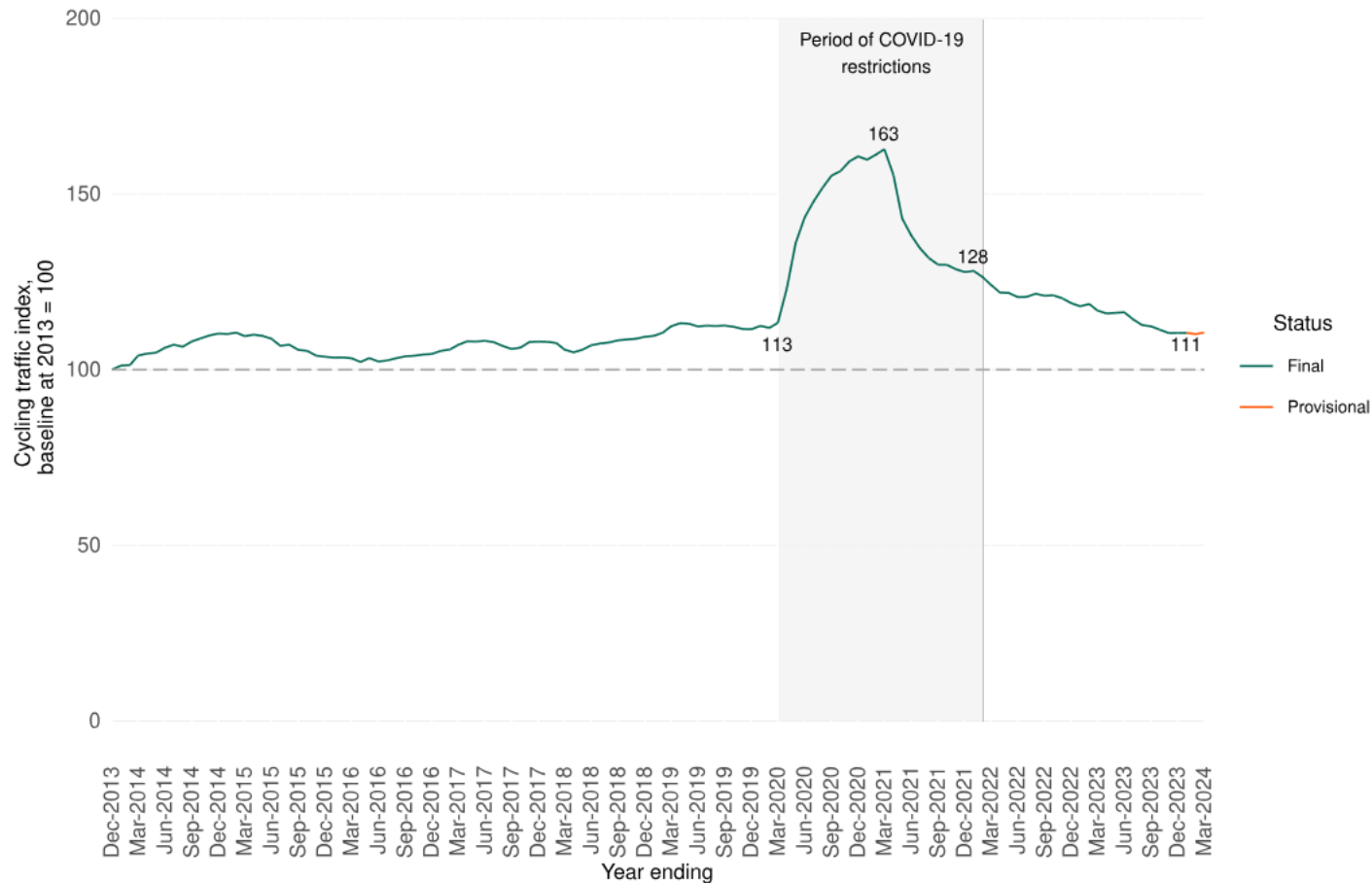
* Given that all monitoring for this report has taken place post-COVID, it would be expected that (given the national benchmark) that cycling levels in Haringey would also decrease over time.

Dockless Cycles

The introduction of dockless cycles in London is another trend that may have impacted cycling levels in and around the LTN area. Dockless cycles are available for hire across Haringey, bikes can be picked up and parked anywhere (with certain exclusions – for example, because of safety). Such bikes have been operating in parts of Haringey since 2022 and the council entered into a 2-year trial partnership with Lime and Forest in February 2024, with specific locations chosen where bikes can be left. Data has been supplied by Lime to show the number of trips that start or end within the LTN. More information about the trial is available [online](#).

Graph 4: Dockless Cycle Levels for Bruce Grove West Green

Monthly number of trips starting or ending in Bruce Grove West Green trial LTN
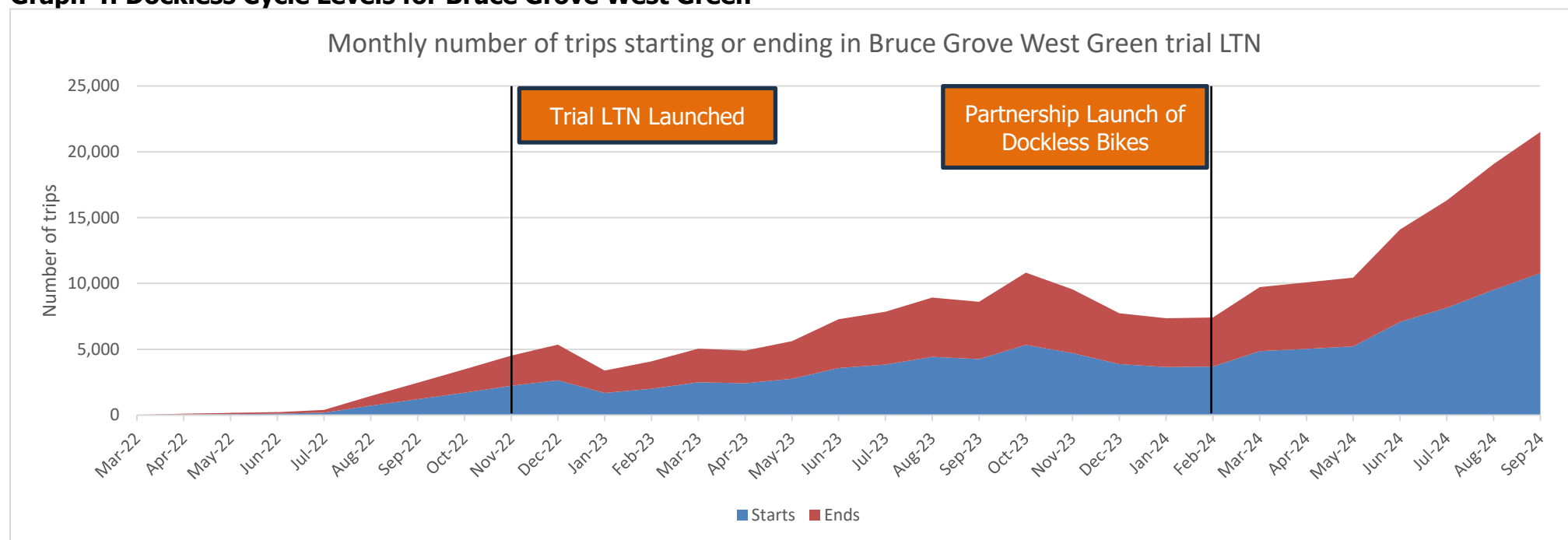
The data indicates a significant increase in the use of dockless bikes starting and ending within the LTN, which aligns with the launch of the dockless bike trial in the borough.

It is expected that dockless cycles play a role in the trends seen in the following maps, which measure the total volumes of cycles traveling at each of the count sites. However, it is not possible to determine whether cycles counted are personal, docked or dockless.

Map 8: Pre LTN (Nov-21) Volume of Cycles (Observed)

Volume of Daily Cycles Pre LTN

- Boundary Sites
- Internal Sites
- Scheme Extents
- Park
- School

Note: Parks / Schools adjacent to the LTN cell are shown

Map 9: Post LTN-Interim (Jan-23) Volume of Cycles (Observed)

Volume of Daily Cycles Post LTN-Interim

- Boundary Sites
- Internal Sites
- Scheme Extents
- Park
- School

Note: Parks / Schools adjacent to the LTN cell are shown

Map 10: Post LTN-Now (Nov-23) Implementation Volume of Cycles (Observed)

Volume of Daily Cycles Post LTN-Now

- Boundary Sites
- Internal Sites
- Scheme Extents
- Park
- School

Note: Parks / Schools adjacent to the LTN cell are shown

Map 11: Percentage Change in Cycle Volumes: Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (Observed)

% Change in Cycles Pre LTN vs Post LTN-Now

- Scheme Extents
- Park
- School

Note: Parks / Schools adjacent to the LTN cell are shown

Table 15: Cycling Volumes on Internal Roads (Observed)

	Pre LTN: Nov-21	Post LTN-Interim: Jan-23	Post LTN-Now: Nov-23	Volume Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)	Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (%)
Adams Road	93	99	93	0	0%
Broadwater Road	135	205	263	128	95%
Carlingford Road	30	28	53	23	77%
Carlingford Road (@Crescent Road/Green Lanes)	86	96	89	3	3%
Chandos Road	97	45	41	-56	-58%
Clonmell Road	85	100	105	20	24%
Dongola Road	94	91	101	7	7%
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	150	81	189	39	26%
Downhills Park Road (@Downhills Park)	180	209	330	150	83%
Drayton Road	24	28	21	-3	-13%
Elmhurst Road	15	12	28	13	87%
Elsden Road	14	25	38	24	171%
Forster Road	115	123	147	32	28%
Gloucester Road	42	55	48	6	14%
Greyhound Road	43	69	27	-16	-37%
Handsworth Road	29	49	22	-7	-24%
Hartham Road	58	73	83	25	43%
Higham Road	171	172	275	104	61%
Keston Road	46	34	53	7	15%
Kitchener Road	62	66	73	11	18%
Langham Road	92	117	126	34	37%
Linley Road	19	24	32	13	68%
Lordsmead Road	27	41	23	-4	-15%
Mannock Road	246	269	226	-20	-8%
Moorefield Road	79	123	129	50	63%
Mount Pleasant Road (#145/The Avenue)	101	99	110	9	9%
Mount Pleasant Road (#316/Lordship Lane)	46	37	37	-9	-20%
Mount Pleasant Road (#5/Philip Lane)	138	170	125	-13	-9%
Napier Road	338	318	481	143	42%
Newlyn Road	39	32	47	8	21%
Pembury Road (#1/High Road)	68	95	62	-6	-9%
Pembury Road (#59/Lordship Lane)	39	48	41	2	5%
Radley Road	41	61	45	4	10%
Ranelagh Road	30	81	74	44	147%
Rusper Road	48	89	70	22	46%
Sandringham Road	25	23	31	6	24%
Sperling Road	89	144	125	36	40%
St. Loys Road	147	203	311	164	112%
Stanmore Road	33	34	39	6	18%
Steele Road	33	29	49	16	48%
The Avenue (@Broadwater Road)	66	27	87	21	32%
The Avenue (@Mount Pleasant Road/Marden Road)	211	171	264	53	25%

Vincent Road	9	12	12	3	**33%**
Walpole Road	35	49	45	10	**29%**
Wilmot Road	76	80	81	5	7%
Wimborne Road	9	51	82	73	**811%**
Winchelsea Road	34	62	79	45	**132%**
Woodside Gardens	34	38	31	-3	-9%
Total / Average Internal Road*	**3,721**	**4,187**	**4,943**	**1,222**	**33%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Table 16: Cycling Volumes on Boundary Roads (Observed)

	Pre LTN: Nov-21	Post LTN-Interim: Jan-23	Post LTN-Now: Nov-23	Volume Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)	Difference Nov-23) vs. Pre LTN (Nov-21) (%)
A10 Bruce Grove (@The Avenue/Woodside Gardens)	290	332	357	67	**23%**
A105 Green Lanes (@Carlingford Road)	825	773	647	-178	**-22%**
A1080 Westbury Avenue (@Mannock Road)	206	169	155	-51	**-25%**
A1080 Westbury Avenue (@Willingdon Road)	211	195	209	-2	-1%
A109 Lordship Lane (@Elsden Road)	120	116	156	36	**30%**
A109 Lordship Lane (@Waltheof Avenue)	167	185	304	137	**82%**
A504 West Green Road (@Carlingford Road)	352	361	547	195	**55%**
A504 West Green Road (@Etherley Road)	481	364	305	-176	**-37%**
B153 Philip Lane	75	560	558	483	**644%**
B155 Belmont Road	167	157	127	-40	**-24%**
B155 Downhills Way	69	77	90	21	**30%**
Total / Average Boundary Roads*	**2,963**	**3,289**	**3,455**	**492**	**17%**

*As detailed on pages 19-20, it is important to note that vehicles travelling through the LTN may go through multiple counter sites, so the total number of vehicle journeys counted is certain to be higher than the actual number of trips taken.

Insights: Cycling Volumes

Cycling levels increased across both internal roads and boundary roads between November 2021 and November 2023, with cycling levels increasing by 33% on internal roads and by 17% on boundary roads. Internal roads saw an increase of 1,222 daily cycles counted, and boundary roads saw an increase of 492 such cyclists, with the majority of roads contributing to the overall increase. It should be noted that there was considerably more rainfall in November 2023 than November 2021, so it should be noted that the increases in cycling flows were seen in spite of materially worse weather in the month of the Post LTN-now counts. These changes should also be set against the national context of decreasing cycle flows since COVID, but the London context of increasing year-on-year cycle flows between 2022-2023.

Almost all internal roads observed increases in cycle volumes. Broadwater Road, Downhills Park Road (@Downhills Park), Higham Road, Napier Road and St Loys Road observed changes of over 100 daily cycles, the largest change being at St Loys Road with 164 additional cycles (+112%). Chandos Road saw the highest decrease in daily cycles, with a reduction of 56 cycles.

Cycle count changes on boundary roads were dominated by figures from B153 Philip Lane, which observed an increase of 483 daily cycles (+644%). This was partially offset by a decrease of 178 daily cycles on A105 Green Lanes (@Carlingford Road) and a decrease of 176 on A504 West Green Road (@Etherley Road). Most boundary roads nonetheless observed increases in cycling levels.

Analysis of Vehicle Speeds

Speeding is a major contributing factor to road danger, so reducing speeding is vital to making 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 5. The speed limit is 20mph on all roads in the Borough, with the exception of the following:

Table 17: Borough Speed Limit Exceptions

LB Haringey Road	Postcode	Speed Limit
Boreham Road	N22	30mph
Bounds Green Road (between Braemar Avenue & A406)	N22	30mph
Ferry Lane	N17	30mph
Fortis Green	N2	30mph
Great North Road	N2	30mph
Hale Road	N17	30mph
High Road (between Bounds Green Road and Borough boundary)	N22	30mph
Lordship Lane	N17 & N22	30mph
Muswell Hill	N10	30mph
Priory Road	N8	30mph
The Roundway (Western arm)	N17	30mph
Westbury Avenue (between Frome Road & Lordship Lane)	N22	30mph
Watermead Way (between borough boundary & Burdock Road)	N17	40mph

The normalised 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 or below which 85% of traffic will be travelling along a street (and therefore 15% of traffic will be travelling faster than this speed). Cycles and their speeds have been removed from calculations relating to vehicle speeds as including such counts would skew averages down.

Map 12: Pre LTN (Nov-21) average Vehicle Speed in mph (Observed)

Average Speed (mph) Pre LTN

- Boundary Sites
- Internal Sites
- Scheme Extents
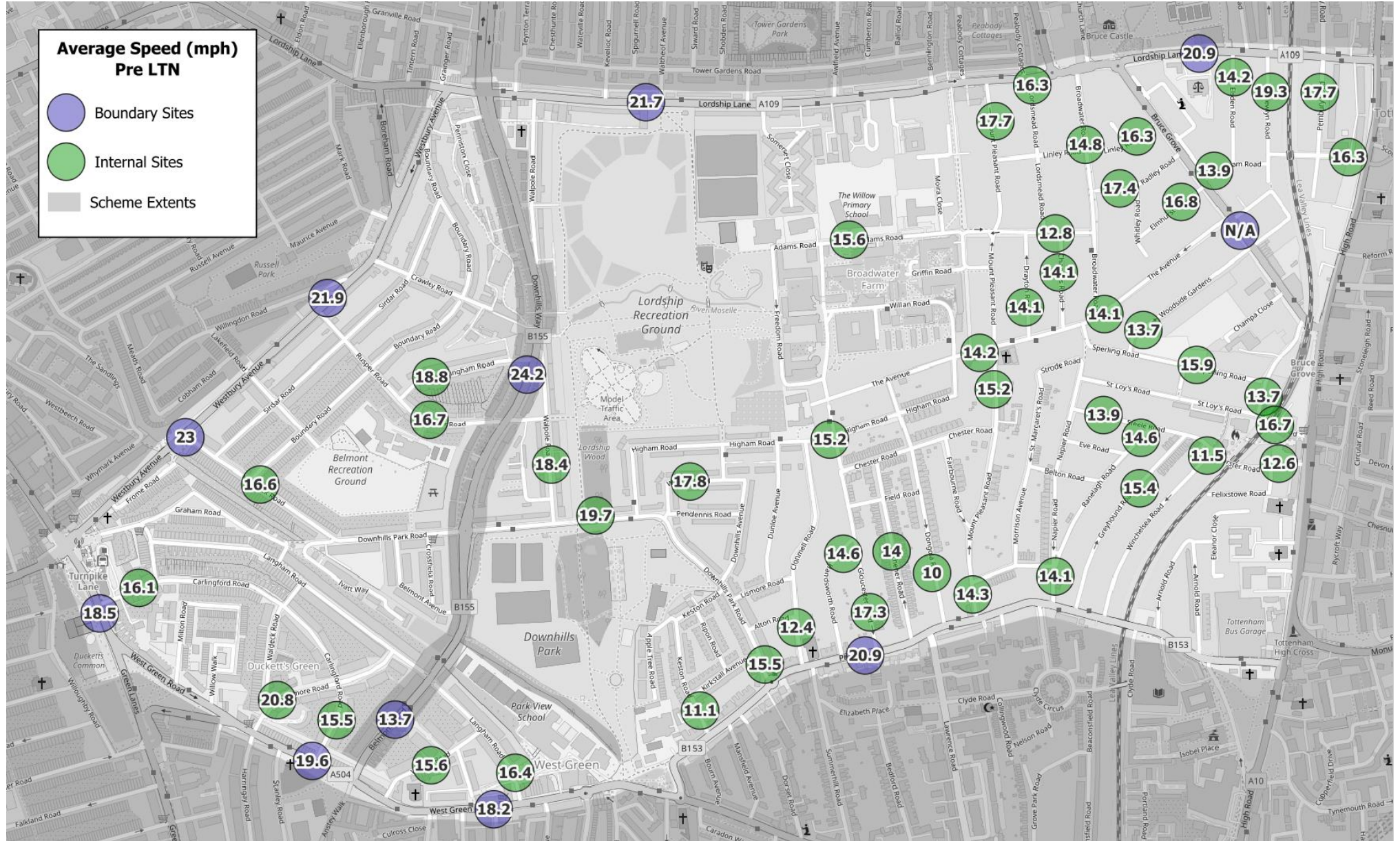
Map 13: Post LTN-Interim (Jan-23) average Vehicle Speed in mph (Observed)

Legend:
Average Speed (mph) Post LTN-Interim
- Boundary Sites
- Internal Sites
- Scheme Extents

Map 14: Post LTN-Now (Nov-23) average Vehicle Speed in mph (Observed)

Map 15: % Change in Motorised Vehicle Average Speed: Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (Observed)
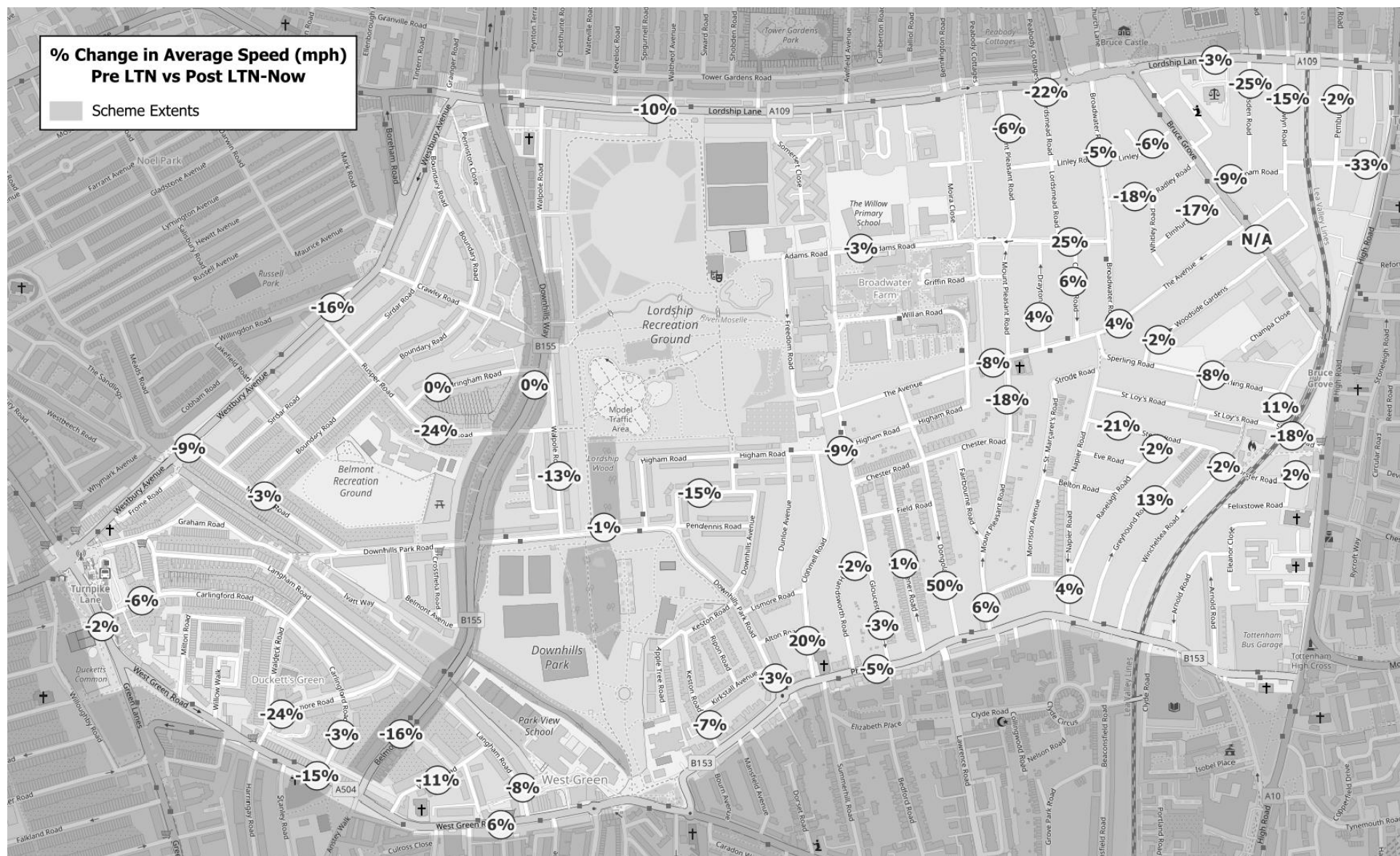
Table 18: Average Speed of Motorised Vehicles on Internal Roads

	Pre LTN (Nov-21) Average Speed (mph)	Post LTN-Interim (Jan-23) Average Speed (mph)	Post LTN-Now (Nov-23) Average Speed (mph)	Average Speed Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (mph)	Average Speed Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (%)
Adams Road	15.6	15.5	15.1	-0.5	-3%
Broadwater Road	14.8	13.5	14.1	-0.7	-5%
Carlingford Road	15.5	16.3	15.0	-0.5	-3%
Carlingford Road (@Crescent Road/Green Lanes)	16.1	13.4	15.2	-0.9	-6%
Chandos Road	14.1	13.9	14.9	0.8	6%
Clonmell Road	12.4	14.7	14.9	2.5	**20%**
Dongola Road	10.0	10.2	14.9	4.9	**50%**
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	15.5	15.1	15.0	-0.5	-3%
Downhills Park Road (@Downhills Park)	19.7	18.1	19.4	-0.3	-1%
Drayton Road	14.1	14.9	14.7	0.6	4%
Elmhurst Road	16.8	16.5	13.9	-2.9	**-17%**
Elsden Road	14.2	11.5	10.6	-3.6	**-25%**
Forster Road	12.6	10.4	12.8	0.2	2%
Gloucester Road	17.3	16.3	16.8	-0.5	-3%
Greyhound Road	15.4	13.7	17.4	2	**13%**
Handsworth Road	14.6	11.0	14.4	-0.2	-2%
Hartham Road	13.9	13.2	12.7	-1.2	-9%
Higham Road	15.2	14.9	13.8	-1.4	-9%
Keston Road	11.1	10.7	10.3	-0.8	-7%
Kitchener Road	14.0	12.9	14.1	0.1	1%
Langham Road	16.4	15.2	15.1	-1.3	-8%
Linley Road	16.3	13.9	15.3	-1	-6%
Lordsmead Road	16.3	11.7	12.7	-3.6	**-22%**
Mannock Road	16.6	16.1	16.1	-0.5	-3%
Moorefield Road	13.7	12.8	15.2	1.5	**11%**
Mount Pleasant Road (#145/The Avenue)	15.2	12.5	12.5	-2.7	**-18%**
Mount Pleasant Road (#316/Lordship Lane)	17.7	11.0	16.6	-1.1	-6%
Mount Pleasant Road (#5/Philip Lane)	14.3	14.0	15.2	0.9	6%
Napier Road	14.1	11.2	14.7	0.6	4%
Newlyn Road	19.3	16.9	16.4	-2.9	**-15%**
Pembury Road (#1/High Road)	16.3	10.2	11.0	-5.3	**-33%**
Pembury Road (#59/Lordship Lane)	17.7	17.2	17.4	-0.3	-2%
Radley Road	17.4	12.9	14.2	-3.2	**-18%**
Ranelagh Road	14.6	14.5	14.4	-0.2	-2%
Rusper Road	16.7	13.1	12.6	-4.1	**-24%**
Sandringham Road	18.8	19.0	18.8	0	0%
Sperling Road	15.9	11.0	14.6	-1.3	-8%
St. Loys Road	16.7	16.2	13.8	-2.9	**-18%**
Stanmore Road	20.8	18.3	15.8	-5	**-24%**

Steele Road	13.9	13.0	11.0	-2.9	**-21%**
The Avenue (@Broadwater Road)	14.1	14.6	14.7	0.6	4%
The Avenue (@Mount Pleasant Road/Marden Road)	14.2	13.7	13.1	-1.1	-8%
Vincent Road	15.6	15.3	13.9	-1.7	**-11%**
Walpole Road	18.4	15.6	16.0	-2.4	**-13%**
Wilmot Road	17.8	16.2	15.1	-2.7	**-15%**
Wimborne Road	12.8	16.5	15.9	3.1	**25%**
Winchelsea Road	11.5	11.8	11.3	-0.2	-2%
Woodside Gardens	13.7	13.8	13.4	-0.3	-2%
Weighted Average	**15.7**	**14.3**	**15.0**	**-1**	**-5%**

Table 19: 85th Percentile Speed of Motorised Vehicles on Internal Roads

	85th Pct. Speed Pre LTN (Nov-21) (mph)	85th Pct. Speed Post LTN-Interim (Jan-23) (mph)	85th Percentile Speed Post LTN-Now (Nov-23) (mph)	85th Percentile Speed Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (mph)	85th Percentile Speed – Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (%)
Adams Road	19.3	19.1	18	-1.3	-7%
Broadwater Road	18.3	16.5	17	-1.3	-7%
Carlingford Road	20.4	19.3	19.5	-0.9	-4%
Carlingford Road (@Crescent Road/Green Lanes)	20.8	16	19.1	-1.7	-8%
Chandos Road	17.4	17.2	18	0.6	3%
Clonmell Road	15.1	18.7	18.9	3.8	**25%**
Dongola Road	12.8	13	18.4	5.6	**44%**
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	18.9	18.5	18	-0.9	-5%
Downhills Park Road (@Downhills Park)	24	22.9	25.4	1.4	6%
Drayton Road	18.5	18.4	19.3	0.8	4%
Elmhurst Road	21.6	21.1	17	-4.6	**-21%**
Elsden Road	16.9	14.9	13	-3.9	**-23%**
Forster Road	16.4	13.3	16.5	0.1	1%
Gloucester Road	21.5	19.4	20.2	-1.3	-6%
Greyhound Road	18.8	17.4	21.4	2.6	**14%**
Handsworth Road	18.2	13.4	17.8	-0.4	-2%
Hartham Road	14	16.9	17.3	3.3	**24%**
Higham Road	19.2	18.3	17	-2.2	**-11%**
Keston Road	14.6	14	10.1	-4.5	**-31%**
Kitchener Road	18.1	16.6	17.4	-0.7	-4%
Langham Road	19.6	19.2	19.2	-0.4	-2%
Linley Road	20	15.8	18.7	-1.3	-7%
Lordsmead Road	19.5	14	15.6	-3.9	**-20%**
Mannock Road	21.4	20.5	21	-0.4	-2%
Moorefield Road	16.8	15.6	18.8	2	**12%**

Mount Pleasant Road (#145/The Avenue)	18.9	15.8	16.1	-2.8	**-15%**
Mount Pleasant Road (#316/Lordship Lane)	21.8	13.8	20.3	-1.5	-7%
Mount Pleasant Road (#5/Philip Lane)	17.9	17.3	18.6	0.7	4%
Napier Road	18.1	13.8	18.8	0.7	4%
Newlyn Road	25.1	22.4	20.9	-4.2	**-17%**
Pembury Road (#1/High Road)	20.7	13.1	14.4	-6.3	**-30%**
Pembury Road (#59/Lordship Lane)	23.1	23.2	23.1	0	0%
Radley Road	21.2	14.1	16.7	-4.5	**-21%**
Ranelagh Road	18	18.1	18.2	0.2	1%
Rusper Road	20.1	14	14.4	-5.7	**-28%**
Sandringham Road	24.4	23.8	23.4	-1	-4%
Sperling Road	19.5	13.2	19.1	-0.4	-2%
St. Loys Road	20.6	20.2	17.6	-3	**-15%**
Stanmore Road	25.2	23.3	18.8	-6.4	**-25%**
Steele Road	17.1	17.2	13.9	-3.2	**-19%**
The Avenue (@Broadwater Road)	18.2	18.6	18.7	0.5	3%
The Avenue (@Mount Pleasant Road/Marden Road)	17.9	17	16.4	-1.5	-8%
Vincent Road	19.2	19	17.5	-1.7	-9%
Walpole Road	23.3	20.1	19.9	-3.4	**-15%**
Wilmot Road	22.5	21	18.1	-4.4	**-20%**
Wimborne Road	17	20.7	19.6	2.6	**15%**
Winchelsea Road	14.2	14.1	12.8	-1.4	**-10%**
Woodside Gardens	16.9	17.2	15.7	-1.2	-7%
Weighted Average	**19.5**	**17.8**	**18.6**	**-0.9**	**-5%**

Table 20: % of Speeding, Motorised Vehicles on Internal Roads

	% Speeding Pre LTN (Nov-21)	% Speeding Post LTN-Interim (Jan-23)	% Speeding Post LTN-Now (Nov-23)	Speeding Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (% pt.)
Adams Road	12%	11%	7%	-5%
Broadwater Road	5%	2%	3%	-2%
Carlingford Road	17%	16%	11%	-6%
Carlingford Road (@Crescent Road/Green Lanes)	20%	6%	0%	**-20%**
Chandos Road	2%	4%	5%	3%
Clonmell Road	1%	8%	9%	8%
Dongola Road	0%	0%	7%	7%
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	9%	6%	5%	-4%
Downhills Park Road (@Downhills Park)	43%	29%	45%	2%
Drayton Road	6%	7%	5%	-1%
Elmhurst Road	24%	21%	6%	**-18%**
Elsden Road	4%	0%	0%	-4%
Forster Road	3%	0%	4%	1%

Gloucester Road	26%	15%	19%	-7%
Greyhound Road	7%	4%	23%	**16%**
Handsworth Road	4%	0%	3%	-1%
Hartham Road	11%	9%	4%	-7%
Higham Road	11%	7%	3%	-8%
Keston Road	4%	2%	1%	-3%
Kitchener Road	6%	6%	7%	1%
Langham Road	13%	11%	9%	-4%
Linley Road	16%	8%	9%	-7%
Lordsmead Road	11%	1%	1%	**-10%**
Mannock Road	20%	17%	18%	-2%
Moorefield Road	2%	1%	9%	7%
Mount Pleasant Road (#145/The Avenue)	10%	3%	3%	-7%
Mount Pleasant Road (#316/Lordship Lane)	28%	0%	16%	**-12%**
Mount Pleasant Road (#5/Philip Lane)	4%	3%	7%	3%
Napier Road	9%	0%	9%	0%
Newlyn Road	44%	27%	22%	**-22%**
Pembury Road (#1/High Road)	19%	0%	3%	**-16%**
Pembury Road (#59/Lordship Lane)	34%	28%	26%	-8%
Radley Road	22%	3%	7%	**-15%**
Ranelagh Road	5%	5%	6%	1%
Rusper Road	16%	5%	3%	**-13%**
Sandringham Road	40%	41%	39%	-1%
Sperling Road	13%	0%	10%	-3%
St. Loys Road	19%	16%	5%	**-14%**
Stanmore Road	56%	34%	10%	**-46%**
Steele Road	4%	4%	0%	-4%
The Avenue (@Broadwater Road)	7%	9%	7%	0%
The Avenue (@Mount Pleasant Road/Marden Road)	6%	4%	3%	-3%
Vincent Road	10%	11%	4%	-6%
Walpole Road	36%	14%	15%	**-21%**
Wilmot Road	29%	16%	9%	**-20%**
Wimborne Road	6%	19%	13%	7%
Winchelsea Road	0%	0%	0%	0%
Woodside Gardens	3%	3%	2%	-1%
Weighted Average	**15%**	**9%**	**10%**	**-5%**

Table 21: Average Speed of Motorised Vehicles on Boundary Roads

	Pre LTN (Nov-21) Average Speed (mph)	Post LTN-Interim (Jan-23) Average Speed (mph)	Post LTN-Now (Nov-23) Average Speed (mph)	Average Speed Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (mph)	Average Speed Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (%)
A105 Green Lanes (@Carlingford Road)	18.5	17.5	18.1	-0.4	-2%
A1080 Westbury Avenue (@Mannock Road)	23.0	21.6	20.9	-2.1	-9%
A1080 Westbury Avenue (@Willingdon Road)	21.9	19.1	18.5	-3.4	**-16%**
A109 Lordship Lane (@Elsden Road)	20.9	23.1	20.3	-0.6	-3%
A109 Lordship Lane (@Waltheof Avenue)	21.7	22.0	19.5	-2.2	-10%
A504 West Green Road (@Carlingford Road)	19.6	17.6	16.6	-3	**-15%**
A504 West Green Road (@Etherley Road)	18.2	17.4	19.2	1	6%
B153 Philip Lane	20.9	18.9	19.9	-1	-5%
B155 Belmont Road	13.7	14.2	11.5	-2.2	**-16%**
B155 Downhills Way	24.2	25.1	24.1	-0.1	0%
Weighted Average	**20.6**	**19.6**	**18.8**	**-1.8**	**-9%**

*No speed data available for video site at A10 Bruce Grove (@The Avenue/Woodside Gardens).

Table 22: 85th Percentile Speed of Motorised Vehicles on Boundary Roads

	85th Pct. Speed Pre LTN (Nov-21) (mph)	85th Pct. Speed Post LTN-Interim (Jan-23) (mph)	85th Percentile Speed Post LTN-Now (Nov-23) (mph)	85th Percentile Speed Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (mph)	85th Percentile Speed – Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (%)
A105 Green Lanes (@Carlingford Road)	23.8	22.8	23.3	-0.5	-2%
A1080 Westbury Avenue (@Mannock Road)	28.5	27.2	27.2	-1.3	-5%
A1080 Westbury Avenue (@Willingdon Road)	26.2	22.9	22.3	-3.9	**-15%**
A109 Lordship Lane (@Elsden Road)	25.3	27.8	24.7	-0.6	-2%
A109 Lordship Lane (@Waltheof Avenue)	26.8	26.6	23.8	-3	**-11%**
A504 West Green Road (@Carlingford Road)	24.5	22.4	21	-3.5	**-14%**
A504 West Green Road (@Etherley Road)	22.8	21.3	23.9	1.1	5%
B153 Philip Lane	24.9	22.8	24	-0.9	-4%
B155 Belmont Road	15.9	17.8	14.5	-1.4	-9%
B155 Downhills Way	28.9	29.4	28.7	-0.2	-1%
Weighted Average	**25.3**	**24.1**	**23.4**	**-1.9**	**-7%**

*No speed data available for video site at A10 Bruce Grove (@The Avenue/Woodside Gardens).

Table 23: % of Speeding, Motorised Vehicles on Boundary Roads

	% Speeding Pre LTN (Nov-21)	% Speeding Post LTN-Interim (Jan-23)	% Speeding Post LTN-Now (Nov-23)	Speeding Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (% pt.)
A105 Green Lanes (@Carlingford Road)	39%	34%	46%	7%
A1080 Westbury Avenue (@Mannock Road)	11%	7%	9%	-2%
A1080 Westbury Avenue (@Willingdon Road)	5%	1%	1%	-4%
A109 Lordship Lane (@Elsden Road)	5%	8%	4%	-1%
A109 Lordship Lane (@Waltheof Avenue)	7%	7%	3%	-4%
A504 West Green Road (@Carlingford Road)	47%	34%	26%	**-21%**
A504 West Green Road (@Etherley Road)	34%	26%	42%	8%
B153 Philip Lane	56%	37%	45%	**-11%**
B155 Belmont Road	2%	7%	1%	-1%
B155 Downhills Way	81%	88%	82%	1%
Weighted Average	**31%**	**25%**	**26%**	**-5%**

*No speed data available for video site at A10 Bruce Grove (@The Avenue/Woodside Gardens).

Insights: Vehicle Speeds

In general, vehicle speeds across internal and boundary roads have decreased across key metrics between the November 2021 Pre LTN and November 2023 Post LTN-Now survey periods.

On internal roads, there is a wide range of changes for vehicle speeds. Average vehicle speeds across these roads decreased by 1mph or -5% in comparison to Pre LTN values, with the largest decreases in average speed observed on Pembury Road (#1/High Road) (16.3mph to 11.0mph), Stanmore Road (20.8mph to 15.8mph), Rusper Road (16.7mph to 12.6mph), Lordsmead Road (16.3mph to 12.7mph) and Elsden Road (14.2mph to 10.6mph). In contrast, the internal roads with the largest increase in average speeds were Dongola Road (10.0mph to 14.9mph, so still under the speed limit) and Wimborne Road (12.8mph to 15.9mph, +25%). Internal roads observed an average decrease of 5% in 85th percentile speed, or a decrease of 0.9mph. There was an overall decrease of 5 percentage points of vehicles speeding across internal roads.

On boundary roads, average speeds decreased by 1.8mph or -9%. A1080 Westbury Avenue (@Willingdon Road) saw the largest decrease in vehicle speeds (21.9mph to 18.5mph, -16%). The only road average speeds increased on is A504 West Green Road (@Etherley Road), where average speeds increased by 1.0mph (from 18.2mph to 19.2mph, or +6%). The 85th percentile speed decreased overall by 1.9mph, or -7%, and all boundary roads observed decreases in their 85th percentile speeds apart from A504 West Green Road (@Etherley Road), which observed an increase of 1.1mph (from 22.8mph to 23.9mph +5%). There was a decrease in vehicles speeding by 5 percentage points on boundary roads, where speeding vehicles A504 West Green Road (@Carlingford Road) and B153 Philip Lane decreased by 21 and 11 percentage points respectively.

It is noted that congestion on boundary roads may play a role in reduced average speeds (although it is noted that traffic counts are still picking up vehicles moving at low speeds).

Overall, vehicle speed data indicates that, with some exceptions, vehicle speed metrics on boundary roads have slightly decreased.

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, particularly levels of congestion along roads and at junctions.

Bus journey time monitoring focused on the four main boundary road corridors below, which are used by the bracketed main bus routes. A map of these corridors is presented on the following page.
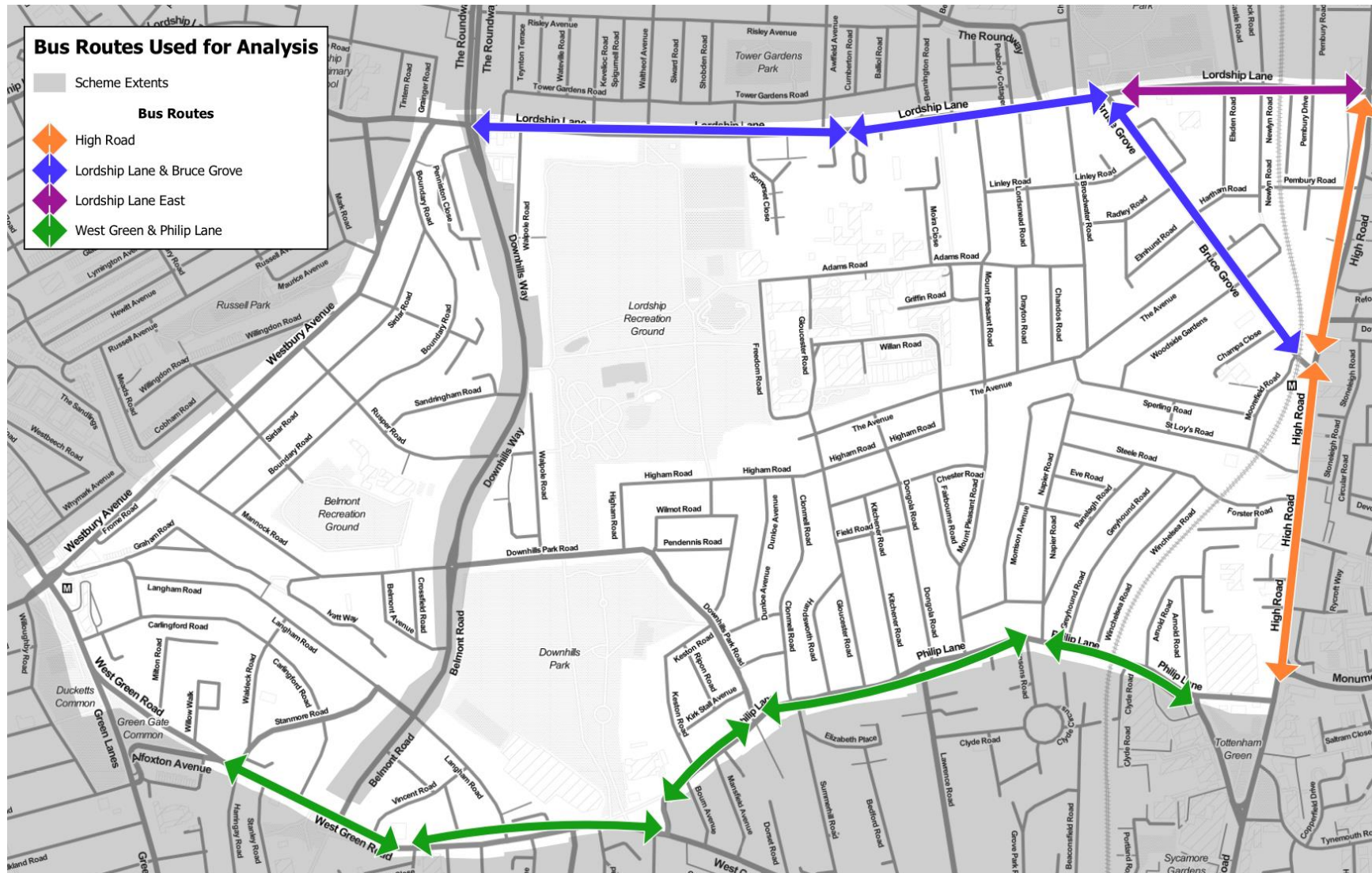
- **High Road, N17** (Routes 123, 149, 243, 259, 279, 318, 341, 349, 476, N279, W4, L1, L2)

- **Lordship Lane & Bruce Grove A10** (Routes 123, 243, W4)

- **Lordship Lane East** (Routes 318, 341, 476)

- **West Green Road & Philip Lane** (Routes 41, 67, 230, 341, N41, W4)

Weekly iBus data provided by TfL has been used for analysis on these routes. This gives weekday (Monday to Friday, excluding bank holidays) average journey times by route, stop-to-stop link and peak periods. These journey times exclude dwell times at stops.

TfL's methodology has been used to analyse the results of the iBus data. Journey time 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 ('Pre LTN Upper' & 'Pre LTN Lower'). These thresholds have been found by taking the mean journey time plus or minus one standard deviation during the pre-COVID-19 Pre LTN 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".

Map 16: Corridors Analysed Using iBus Data

Bus Routes Used for Analysis

Scheme Extents

Bus Routes

- High Road
- Lordship Lane & Bruce Grove
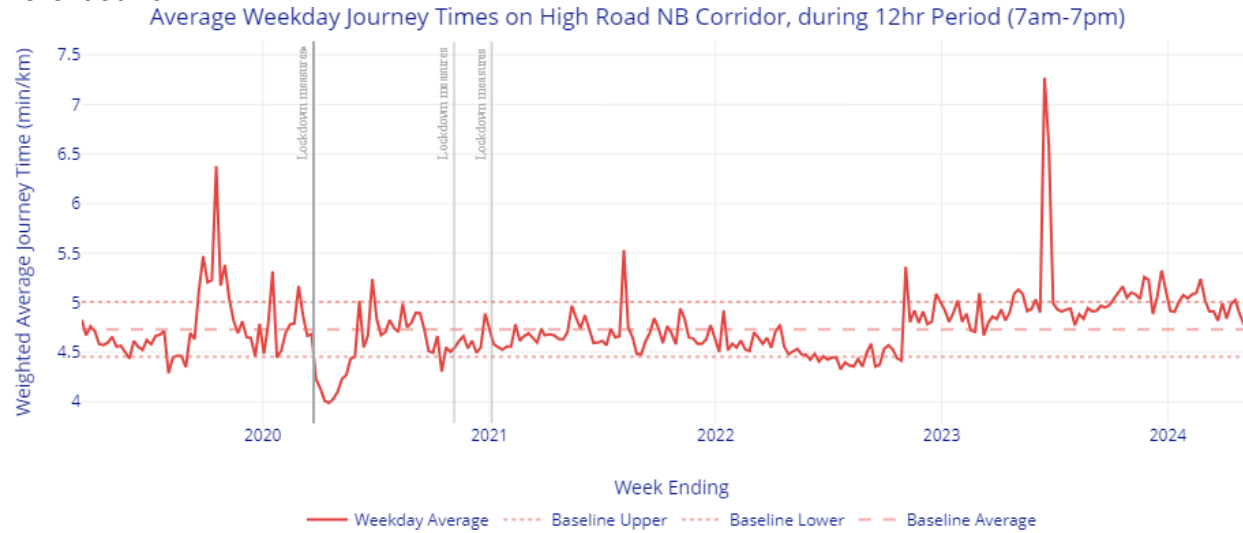- Lordship Lane East
- West Green & Philip Lane

The results are shown in Graphs 5 to 8 on the following pages. The dashed red lines indicate the Pre LTN threshold, and the red line indicates the average journey times, on a three-week basis.
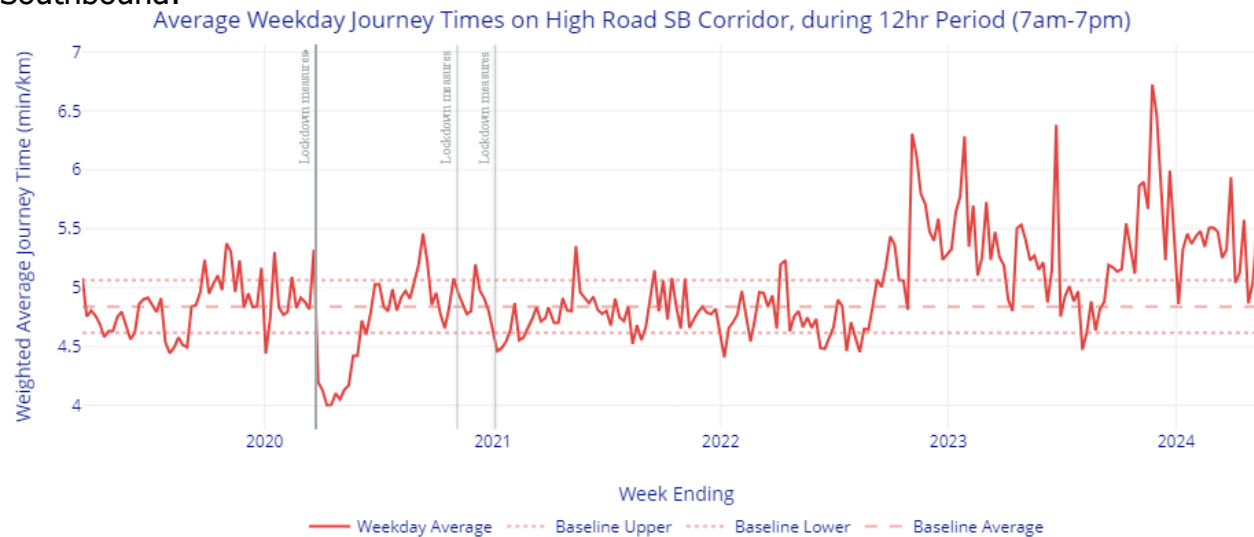
Graph 5: High Road, N17 Corridor (Northbound and Southbound)
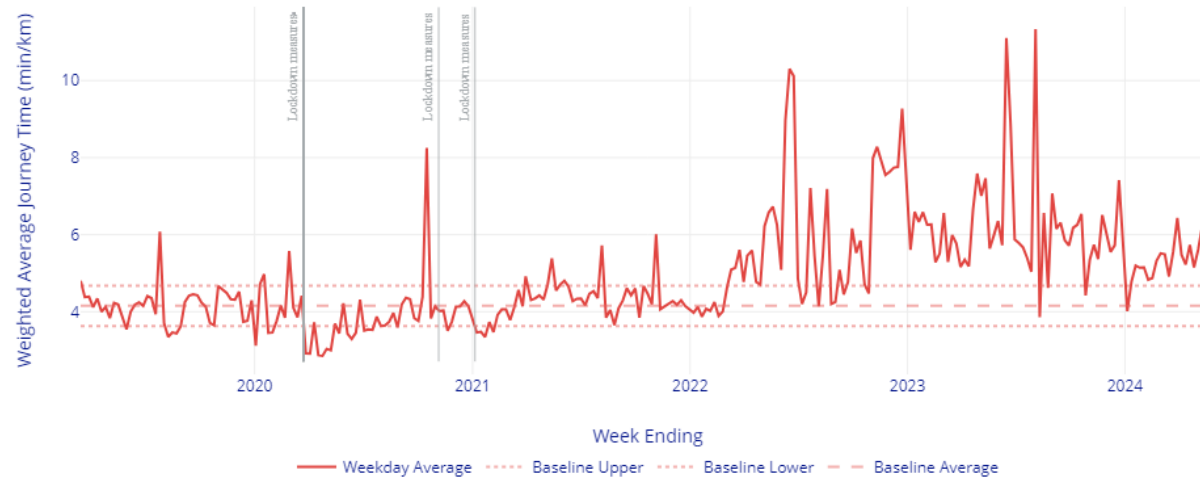Northbound:

Average Weekday Journey Times on High Road NB Corridor, during 12hr Period (7am-7pm)

Southbound:

Average Weekday Journey Times on High Road SB Corridor, during 12hr Period (7am-7pm)
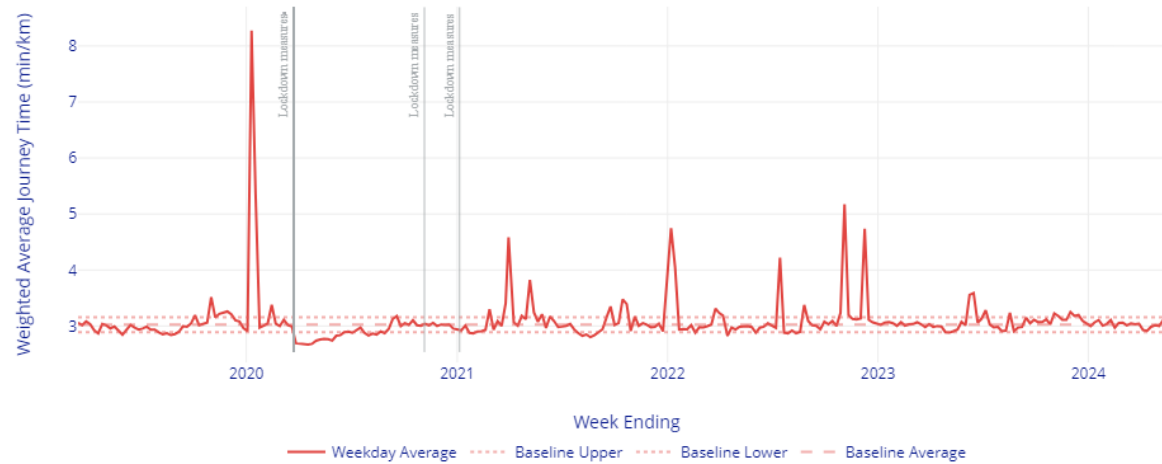
71

Graph 6: Lordship Lane & Bruce Grove Corridor

Eastbound:

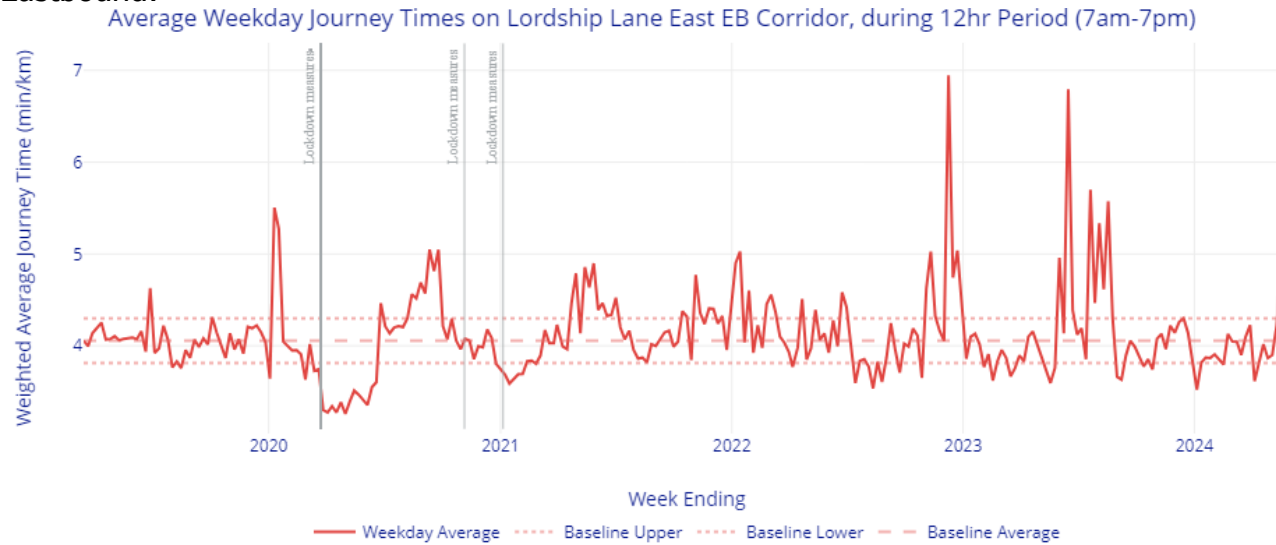Average Weekday Journey Times on Lordship Lane & Bruce Grove EB Corridor, during 12hr Period (7am-7pm)

Westbound:

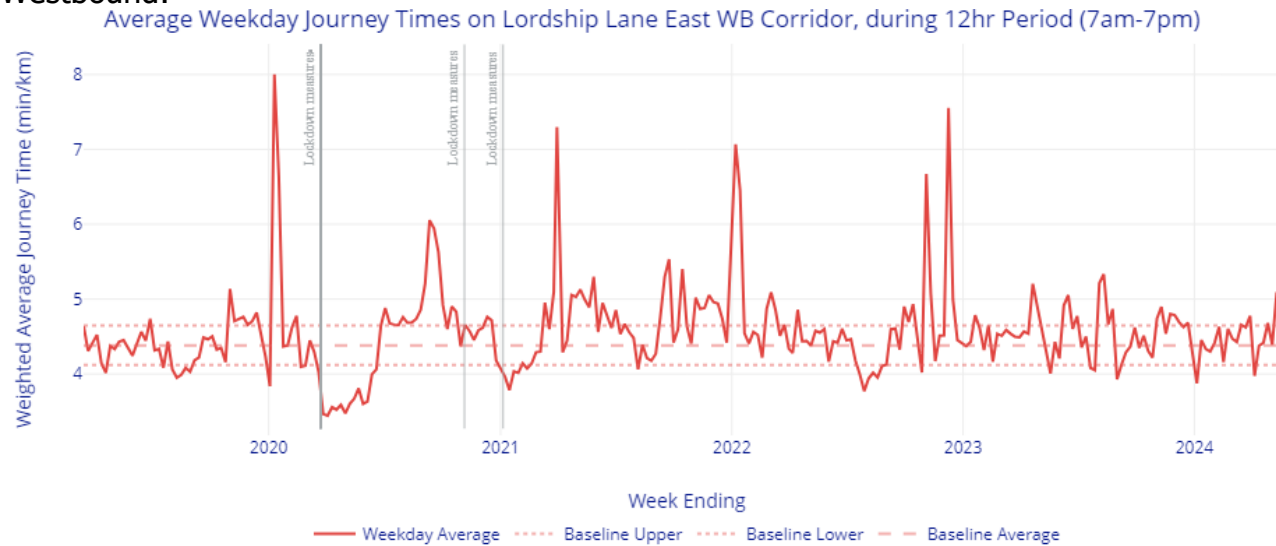Average Weekday Journey Times on Lordship Lane & Bruce Grove WB Corridor, during 12hr Period (7am-7pm)

Graph 7: Lordship Lane East Corridor
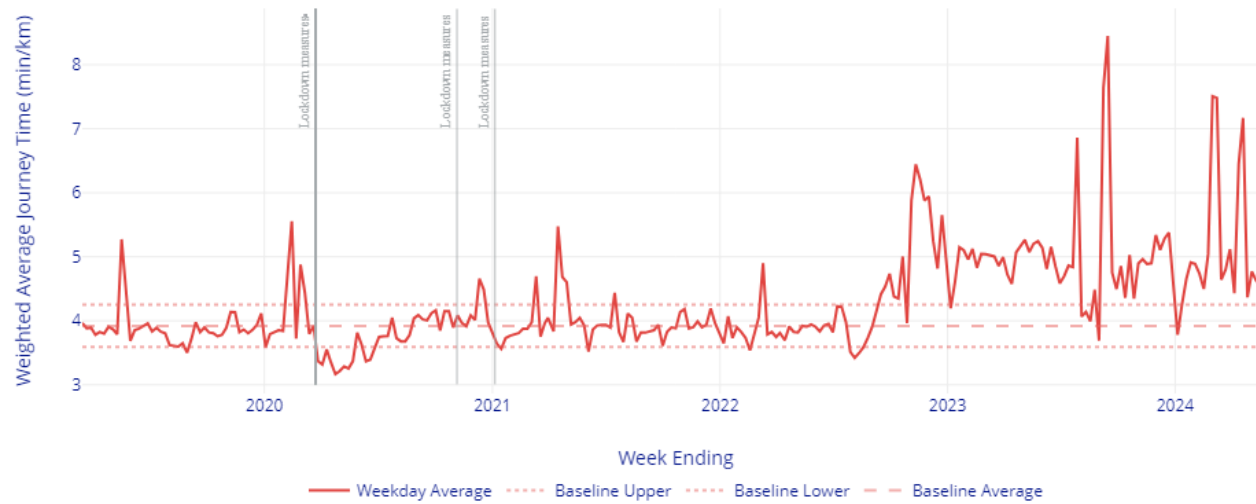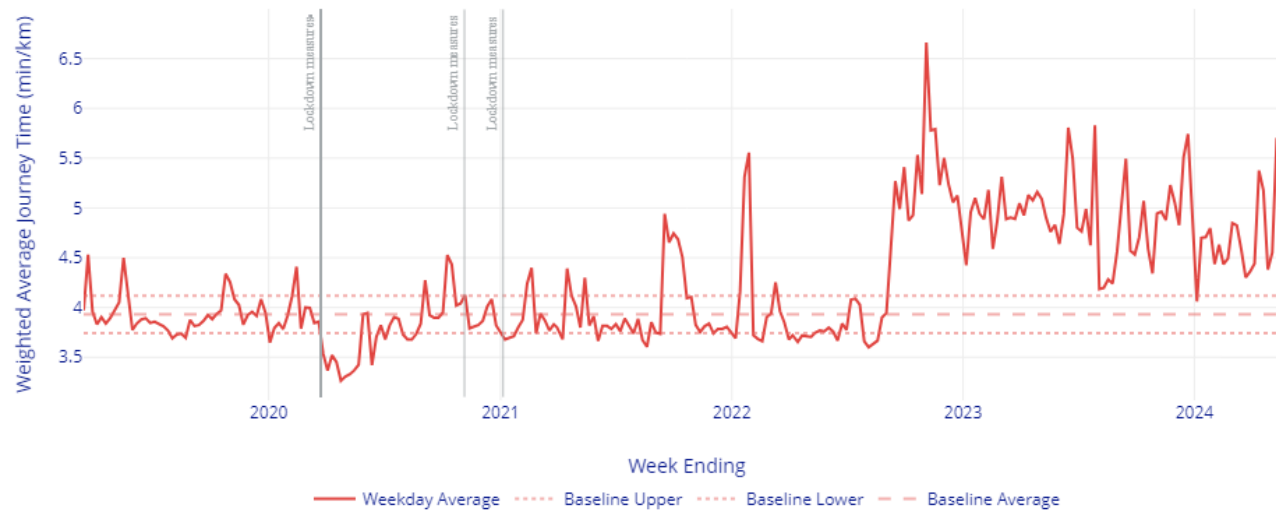
Eastbound:

Average Weekday Journey Times on Lordship Lane East EB Corridor, during 12hr Period (7am-7pm)

Westbound:

Average Weekday Journey Times on Lordship Lane East WB Corridor, during 12hr Period (7am-7pm)

73

Graph 8: West Green Road Corridor

Westbound:

Eastbound:

Insights: Bus Speeds on Boundary Roads

High Road – Bus Journey Times

Since the trial LTN has been introduced, average journey times on the northbound corridor between 7am-7pm are showing an average increase of 0.2min/km in comparison to the baseline average. Average bus journey times show an average of 4.8min/km. This corridor has seen similar variability to pre-LTN bus journey times, as journey times have been consistent apart from one peak exceeding 7min/km mid-2023.

Since the trial LTN has been introduced, average journey times on the southbound corridor between 7am-7pm are showing an average increase of 0.5min/km in comparison to the baseline average. Average bus journey times show an average of around 5.3min/km. This corridor has seen more variability than pre-LTN bus journey times.

Lordship Lane & Bruce Grove – Bus Journey Times

Since the trial LTN has been introduced, average journey times on the eastbound corridor between 7am-7pm are showing an average increase of 2 minutes per kilometre in comparison to the baseline average. Average bus journey times show an average of 6.2min/km. This corridor has seen more variability than pre-LTN bus journey times.

Since the trial LTN has been introduced, average journey times on the westbound corridor between 7am-7pm are showing no changes in comparison to the baseline average. Average bus journey times show an average of 3.0min/km. This corridor has seen less variability than pre-LTN bus journey times. This corridor has seen less variability than pre-LTN bus journey times.

Lordship Lane East – Bus Journey Times

Since the trial LTN has been introduced, average journey times on the eastbound corridor between 7am-7pm are showing no changes in comparison to the baseline average. Average bus journey times show an average of 4.0min/km. This corridor has seen more variability than pre-LTN bus journey times, with several peaks exceeding 6min/km.

Since the trial LTN has been introduced, average journey times on the westbound corridor between 7am-7pm are showing limited changes in comparison to the baseline average (+0.25min/km). Average bus journey times show an average of 4.6min/km. This corridor has seen less variability than pre-LTN bus journey times.

West Green Road & Philip Lane Corridor – Bus Journey Times

Since the trial LTN has been introduced, average journey times on the westbound corridor between 7am-7pm are showing an average increase of 1min/km of average journey time in comparison to the baseline average. There is an average journey time of 5min/km. This corridor has seen significantly more variability than pre-LTN bus journey times

Since the trial LTN has been introduced, average journey times on the eastbound corridor between 7am-7pm are showing an average increase in average journey time of 1.2min/km in comparison to the baseline average. There is an average journey time of 5.2min/km. This corridor is displaying significantly more variability than pre-LTN bus journey times.

Collision Data

Any scheme in which there are changes to road environments may have an impact on the safety of those traveling within that environment. In the case of this report, this is measured by the difference in the number of collisions and severity of casualties before and after the LTN scheme was implemented (one year before and one year after).

Vehicle collisions, as defined in this report, refer specifically to data collected by police officers at the scene of road traffic collisions (accidents), or data reported to the police from such instances. Data is only entered into this dataset if there is a personal injury caused by the collision; data from collisions resulting in property damage is not included. Collisions that do not result in police attendance or are not self-reported to the police directly are not recorded in the dataset. For recorded entries, a range of information is collected, including the coordinates/location, time and day, severity of collision (slight, serious and fatal), roadway types and conditions, demographics of casualties, and information (if available) on how the collision occurred.

It is noted that there is likely a strong correlation between motorised vehicle flows and the number of collisions, as lower traffic levels reduce the risk of exposure to collisions. However, other factors such as vehicle speeds, changes in proportions of vehicle types (e.g. more cycles, motorcycles and goods vehicles) can also have a significant effect on collision and casualty numbers.

It is also important to note that whilst some collisions occur due to the road environment, many are noted as due to "driver error", which typically has more to do with driving choices (driving under the influence, driving whilst using a mobile phone, etc.) than the road environment itself. Thankfully, there are limited collisions across most of the scheme area, with repeat collisions in specific locations typically few in number as well – although this means that it is difficult to draw statistically conclusive findings based on the very small sample sizes.

The maps and tables on the following pages show a comparison of both the number of collisions (instances) and casualties (number of individuals injured), broken down by casualty severity, scheme area (internal or boundary) and period (12 months before or 12 months after implementation).

Map 17: Collision Locations, Pre-Implementation 12 Months
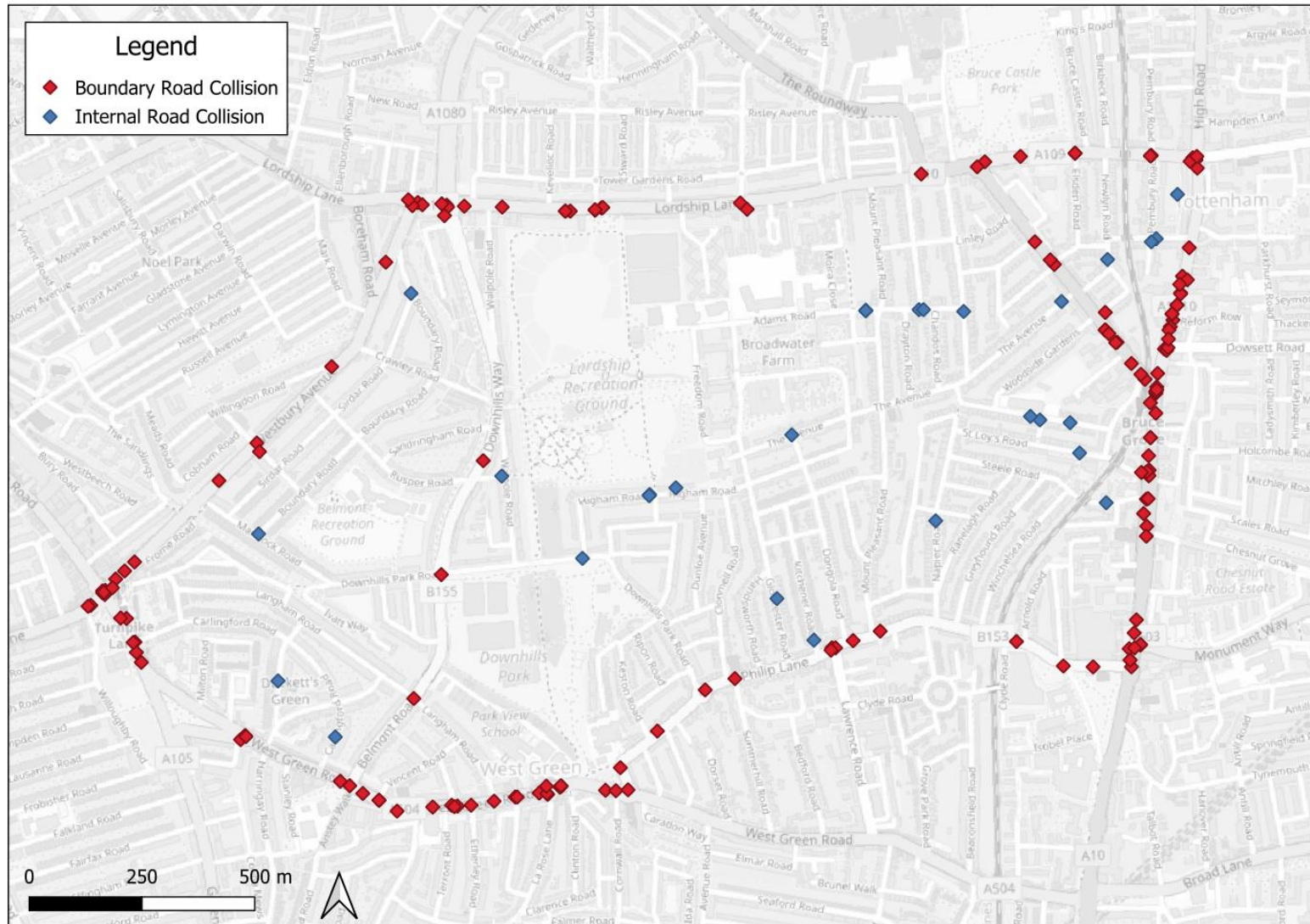
*It should be noted that coordinates do not always clearly outline an internal/boundary road. In such cases, the actual street name was referenced to confirm which category the collision belonged to.
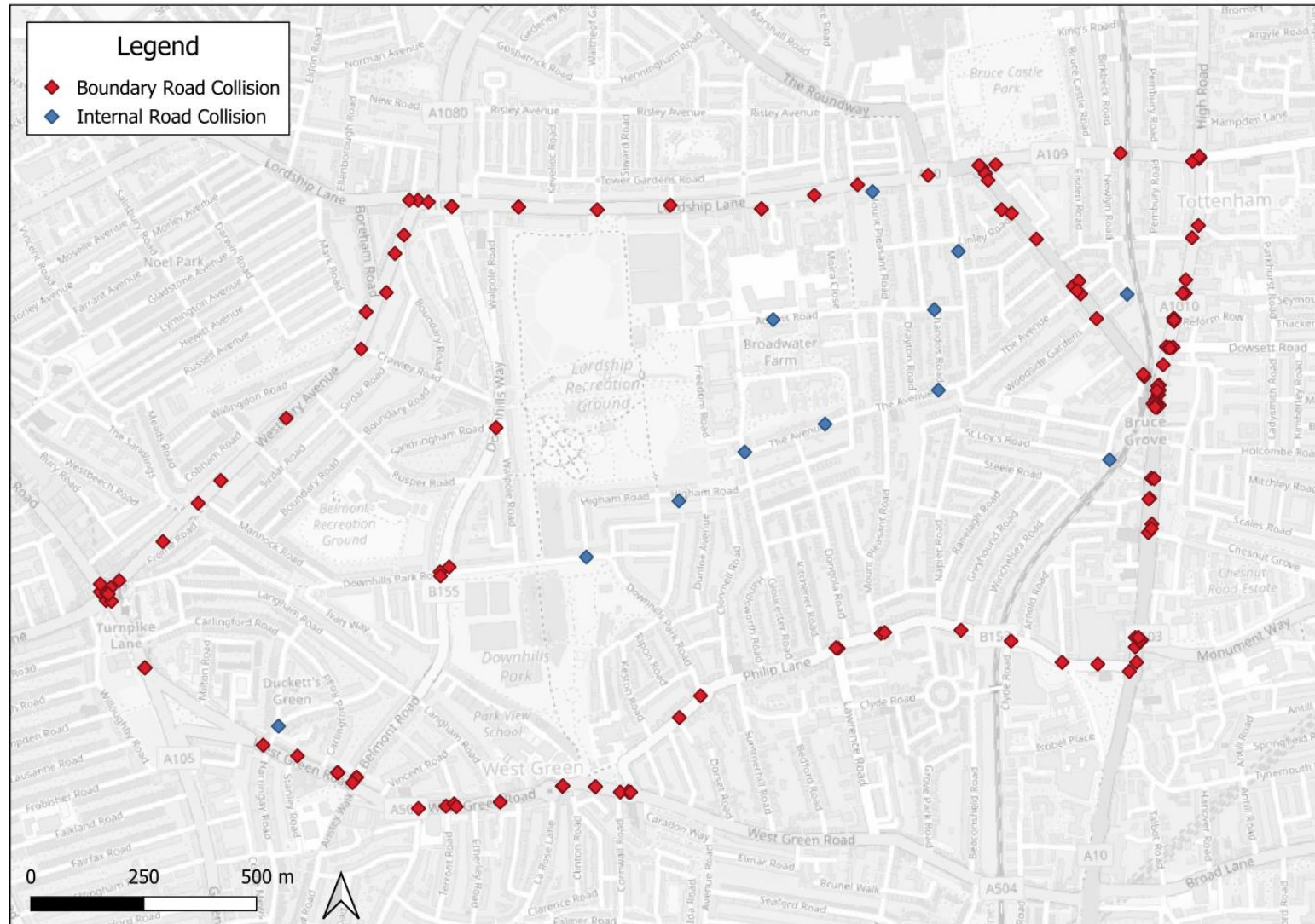
Map 18: Collision Locations, Post-Implementation 12 Months

*It should be noted that coordinates do not always clearly outline an internal/boundary road. In such cases, the actual street name was referenced to confirm which category the collision belonged to.

Table 24: Collision Volumes, Internal Roads

	Internal, Pre-Implementation	Internal, Post-Implementation	Internal, Change	Internal, % Change
# Fatal Collisions	0	0	0	0%
# Serious Collisions	3	4	1	33%
# Slight Collisions	24	8	-16	-67%
Total Collisions	27	12	-15	-56%

Table 25: Casualty Volumes, Internal Roads

	Internal, Pre-Implementation	Internal, Post-Implementation	Internal, Change	Internal, % Change
# Fatal Casualties	0	0	0	0%
# Serious Casualties	4	4	0	0%
# Slight Casualties	26	8	-18	-69%
Total Casualties	30	12	-18	-60%

Table 26: Collision Volumes, Boundary Roads

	Boundary, Pre-Implementation	Boundary, Post-Implementation	Boundary, Change	Boundary, % Change
# Fatal Collisions	1	0	-1	-100%
# Serious Collisions	16	20	4	25%
# Slight Collisions	132	102	-30	-23%
Total Collisions	149	122	-27	-18%

Table 27: Casualty Volumes, Boundary Roads

	Boundary, Pre-Implementation	Boundary, Post-Implementation	Boundary, Change	Boundary, % Change
# Fatal Casualties	1	0	-1	-100%
# Serious Casualties	18	21	3	17%
# Slight Casualties	143	121	-22	-15%
Total Casualties	162	142	-20	-12%

Insights: Collisions

As previously outlined, drawing conclusions about the scheme based on collision data is difficult, as the sample size is thankfully too small (particularly for specific parts of the network) to know whether changes are related to the LTN and/or other factors. This is particularly true of drawing conclusions about specific junctions or stretches of road. As such, it would not be appropriate to report at this level of detail, particularly as this this dataset is usually analysed for entries over a three-year period (noting that this was not possible in the context of this report).

That said, on a general basis, there appears to have been a moderate reduction in the total number of collisions and casualties between the 12 months before and the 12 months after the scheme was implemented. Naturally, the number of collisions on internal roads has gone down by over 50% (and casualties down 60%), in line with the reduced traffic volumes on these roads. However, despite the slight increase in traffic on boundary roads, the volume of total collisions on such roads has dropped by 18%, with casualties dropping by 12%.

It is possible that changes in traffic volumes have played a role in these changes, but other metrics such as vehicle speeds, increased driver awareness and caution (in light of the scheme being new) and many others could have also been factors.

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 main pollutant of concern that we monitor is nitrogen dioxide (NO_2) – one of a group of gases called nitrogen oxides. NO_2 is toxic gas that can be very harmful to the human respiratory system.

The analysis conducted focuses on outputs from diffusion tubes, which provide monthly readings of NO_2. Whilst not as accurate as other types of monitors (i.e. automatic monitors), diffusion tubes can be more widely deployed to provide trends over a larger area and time period, and such tubes are a nationally approved monitoring technique. These tubes measure the air's concentration of nitrogen dioxide (NO_2). The tubes are replaced and analysed on a monthly basis. Research suggests that at urban roadside locations in the UK up to 80% of the nitrogen dioxide measured comes from road transport.

Haringey's air quality sites are classified based on their location using Defra guidance, but are referred to in these LTN monitoring reports using LTN terminology. According to Defra, "Roadside sites" are those within one to five metres of a busy road. In the LTN 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, and in the reports these are the internal sites within the LTN.

The analysis has been conducted across two sets of monitors for purposes of comparison – those within LTN cells or on their boundary roads, or those that are elsewhere in the borough. The sites not in LTNs have been treated as a control group, as well as to show the longer trend of air quality in the borough. Continuous data from some wider-borough sites exists from 2018 onwards, whilst the LTN-focused monitors first started collecting data in June 2021. The wider-borough sites used for Haringey are those that are not within or on the direct boundary of LTN cells and consist of 12 roadside diffusion tubes and 16 background urban diffusion tubes.

The air quality monitoring sites for the Bruce Grove West Green LTN are listed in Appendix 3, with details about type and location. For the Bruce Grove West Green scheme, there are four boundary road diffusion tubes and six urban background tubes.

Methodology

Air quality varies naturally over time due to a variety of factors, including seasonal variations, weather and other non-transport factors. It is therefore important to look at trends over a longer period of time, ideally for at least a year, to identify real changes in air quality that could be attributed to the scheme. The ultimate goal of the air quality strategy is to reduce air pollution as much as possible, and certainly to within legal limits.

In the case of this report, data is available from January 2018 to December 2023. Data for individual sites is easily skewed, particularly if months are missing in the datasets – this is quite common, as when tubes are replaced each month they may be missing or presenting other clear issues (guidance set by the Mayor of London indicates how such situations are to be treated in the data). Ultimately, the above means that making comparisons between short periods of time before and after scheme implementation is unlikely to yield meaningful results, and that presenting air quality data on a site-by-site basis would be misleading. Instead, the overall trend of NO_2 levels (as an average across all site types) has been considered to show how air quality has changed over time.

It is noted that to improve accuracy levels of diffusion tubes, it is necessary to bias correct the results based upon local or national collocation studies (checking accuracy in a few of the same locations using more accurate, but expensive equipment). 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.

Results: Air Quality Diffusion Tubes

The table below provides an indication of the average air quality before and after scheme implementation, comparing average NO_2 levels for the twelve months on either side of implementation for monitoring sites, both in the scheme area and elsewhere in the borough.

Table 28: Average NO$_2$ levels for the twelve months on either side of implementation for monitoring sites, LTN scheme and borough

Monitoring Location- Bruce Grove West Green LTN	Before LTN NO$_2$ (µg/m^3)	After LTN NO$_2$ (µg/m^3)	Before LTN against After LTN NO$_2$ (µg/m^3)	Before LTN against After LTN NO$_2$ (%)
Roadside (Boundary) - LTN	23.5	25.3	1.8	8%
Roadside (Boundary) - Borough	32.1	33.8	1.7	5%
Urban Background (Internal) - LTN	25.2	24.3	-0.9	-4%
Urban Background (Internal) - Borough	21.8	22.6	0.8	4%
All - LTN	24.4	24.8	0.4	2%
All - Borough	26.2	27.4	1.2	5%

The tables below provide an indication of the average air quality before and after scheme implementation, comparing average NO$_2$ levels for the twelve months on either side of implementation for monitoring sites, both on internal sites and boundary sites.

Table 29: Average NO$_2$ levels for the twelve months on either side of implementation for monitoring sites, Internal Roads

Internal - Location / Road	NO$_2$ Annual Mean Objective (40µg/m^3)	
	Before LTN November 2021 - October 2022	After LTN November 2022 - October 2023
Bruce Grove Primary School, Sperling Road, London, N17 6UL	30.0	29.0
Park View Academy, Langham Road, London, N15 3RA	21.2	22.2
The Grove School, Downhills Park Road, London, N17 6AR	24.9	24.6
73 Broadwater Rd, London N17 6EP	24.7	21.4

Table 30: Average NO$_2$ levels for the twelve months on either side of implementation for monitoring sites, Boundary Roads

Boundary - Location / Road	NO$_2$ Annual Mean Objective (40µg/m^3)	
	Before LTN November 2021 - October 2022	After LTN November 2022 - October 2023
Harris Primary Academy, Philip Lane, London, N15 4AE	19.2	19.5
471 High Road, London, N17 6QA	20.7	27.6
87 Bruce Grove, London N17 6UZ	23.5	25.0
104 Westbury Ave, London N22 6RT	32.0	37.5
85 Downhills Way, London N17 6AL	19.4	19.3
6 Green Lanes, London N15 3EA	20.5	34.3

For Bruce Grove West Green, two sites (at 471 High Road and at 6 Green Lanes) saw significant increases in NO$_2$ levels between September and December 2023, after a long period of moderate NO$_2$ levels and a generally positive trend downwards. This trend was significantly above that seen at all other sites and does not seem to relate to any noted changes in the traffic situation, for example increased flows or congestion. These are shown below in Graph 9.

# Graph 9: Average NO$_2$ Levels at 471 High Road and 6 Green Lanes
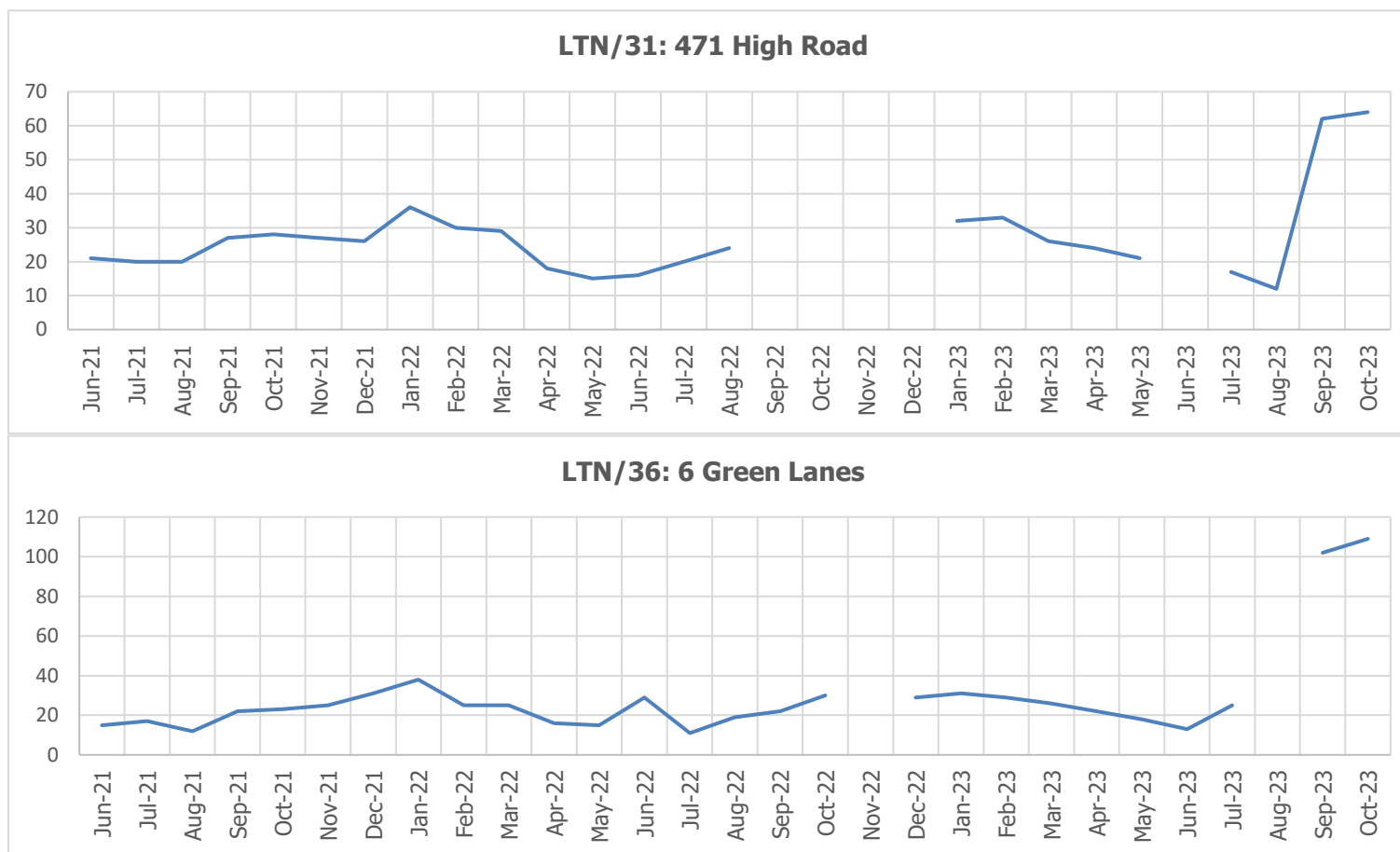
As no logical explanation for these sudden high readings can be found, it has been considered that they may result from some other very localised impact unrelated to the LTN scheme. As such, a trimmed version of the NO$_2$ data is presented below, which excludes all data from the 471 High Road and 6 Green Lanes sites. The council is undertaking additional monitoring at these two sites to understand the reason for these high readings.

Data for each set of sites has been split by roadside sites (boundary/major roads), urban background sites (internal/residential roads), as well as an

average of all sites reported on. The chart belowshows the trendlines for air quality sites within the Bruce Grove West Gren LTN, as well as across the wider Borough, allowing for easy comparison of trends in NO_2 levels for boundary, urban background and all roads combined. In the below, average roadside/all values for Bruce Grove West Green now align much more closely with borough wide trends.

Graph 10: Average NO₂ Levels in Bruce Grove West Green LTN Compared to Long-Term Borough-Wide Sites from Diffusion Tubes (Trimmed)
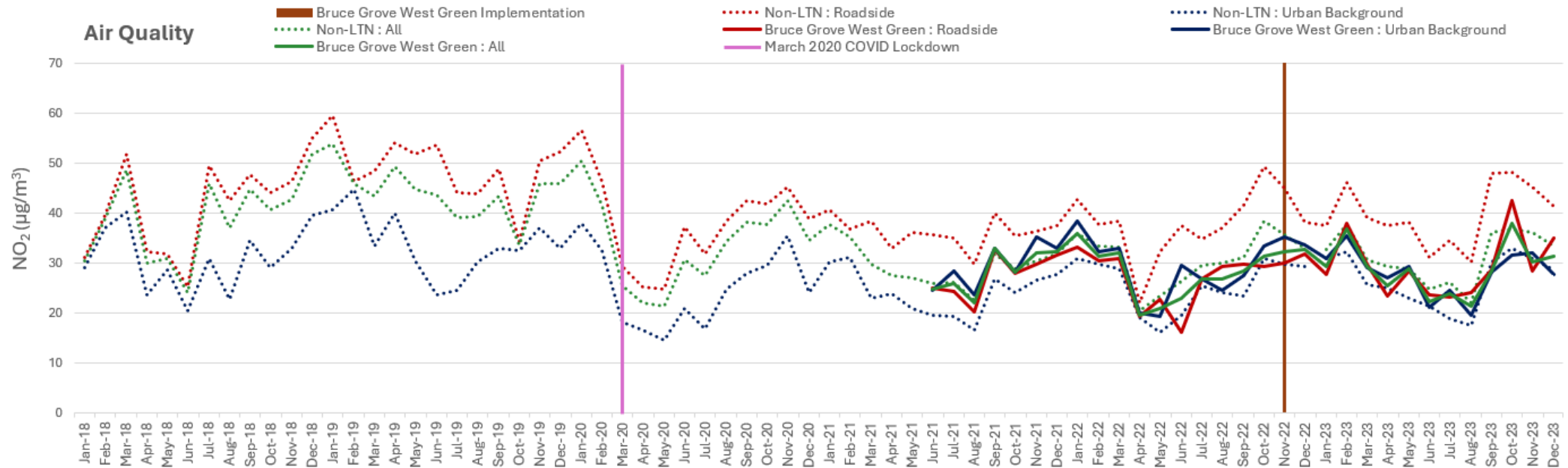
Insights: Air Quality

Air Quality demonstrates that there are considerable seasonal impacts on NO_2 levels, with typically lower levels recorded in warmer months and higher levels in colder months. Still, the impact of COVID-19 on air quality was very clear during the most restrictive lockdowns in 2020 and 2021, with lower-than-average NO_2 levels recorded during this period. From around the time LTN-specific monitors were installed in June 2021, COVID-era improvements in air quality began to flatten and, as many returned to work and more active daily routines commenced in 2022, this began to increase slightly. Air quality improved after the introduction of LTN schemes until August 2023 before worsening again at the end of 2023 at the onset of autumn – following seasonal patterns. Broadly, the same trend can be seen for borough wide, non-LTN monitors as for monitors inside the LTN – both before and after the schemes were implemented – indicating no specific impact from their introduction.

It has been found that, generally, there has been limited change in air quality at monitoring sites in the scheme area, and that any changes are similar to wider changes across the borough, indicating that the scheme did not notably impact air quality. Overall, the concentration of NO_2 increased by 2% (+0.4µg/m^3) for the sites in the LTN scheme area and by 5% for sites elsewhere in the Borough (+1.2µg/m^3). This is broken down into a decrease of 4% (-0.9µg/m^3) for LTN internal roads compared to an increase of 4% (+0.8 µg /m^3) for similar urban background locations across the wider Borough – and an increase of 8% (+1.8µg/m^3) on LTN boundary roads compared to an increase of 5% (+1.7µg/m^3) on similar roads elsewhere in the Borough.

Crime Patterns within the LTN

Crime data has been drawn from the [London datastore](#) for the 16 Lower Super Output Areas included within the Bruce Grove West Green LTN area, as well as for the entirety of Haringey, for a period covering June 2022 to May 2024. The dataset includes an indication of all criminal activity as reported to the police, including a wide range of offences such as public order offences, theft, drug offences and burglary, among others. The graph below shows the number of crime reports summed by month and presented as a proportion out of the total number of such reports across the two years of data presented.

Data has been drawn from the Bruce Grove West Green LTN area and the whole of Haringey, with the number of crime reports summed by month and presented as a proportion out of the total number of such reports across the two years of data presented.

Graph 11: Proportional Breakdown of Calls and Crimes in Bruce Grove West Green LTN area and Haringey
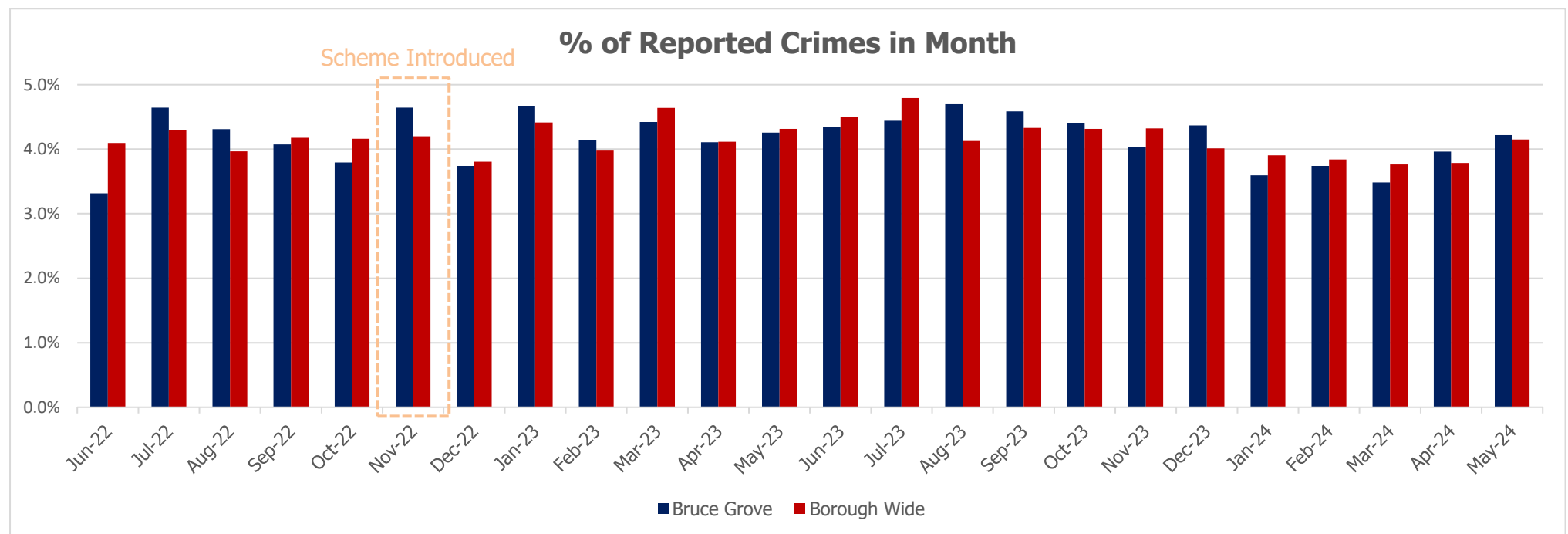
Insights: Anti-Social Behaviour and Crime Patterns

Pre LTN, in June, September and October 2022 the Bruce Grove West Green LTN area showed a lower percentage of reported crimes than the rest of the borough, however the area saw higher levels of reported crimes in July and August 2022 than the rest of the borough. Levels of reported crimes for the LTN area during this overall period fluctuated between 3.3 and 4.7%, while borough-wide, between 4% and 4.3% of crimes were reported during this period. The average was 4% for the scheme and 4.1% borough wide.

Post LTN, no significant changes have been observed. While crime reports have increased in the Bruce Grove LTN area in general, this has also been the case in the entire borough. The minimum % of crime reported has been 3.5% in the LTN (3.8% borough-wide), the maximum has been 4.7% in the LTN (4.8% borough-wide), and the average has been 4.2 in both the scheme area and the borough as a whole.

The volume of criminal activity reports in the scheme area and in the borough-at-large are broadly similar, both before and after the scheme's introduction. There is no indication that crime patterns within the Bruce Grove West Green LTN area have been impacted by the introduction of the LTN scheme.

Footfall within the LTN

Footfall data in district and local centres in the Bruce Grove LTN area has been analysed to assess whether the introduction of the LTN scheme has impacted businesses. Data is available between mid-May 2022 and end of March 2024 for Both West Green Road / Seven Sisters and Bruce Grove business locations, both of which have been included as they are close to the Bruce Grove LTN scheme area.

Methodology – MRI (Springboard) Footfall Counters
Haringey Council collects footfall data through MRI (formerly Springboard) footfall counters based at strategic locations on High Streets across the borough. The data is used to compare hourly, week-week, month-month, and year on year footfall to assist in the development of strategic high street interventions

It is noted that due to the proximity of the St Ann's LTN scheme, both Bruce Grove West Green and St Ann's LTNs have been considered for this analysis.

Total weekly footfall is shown in the following page.

Graph 12: Footfall Data

Bruce Grove Total Weekly Footfall - 2022/24

West Green Road Total Weekly Footfall - 2022/24
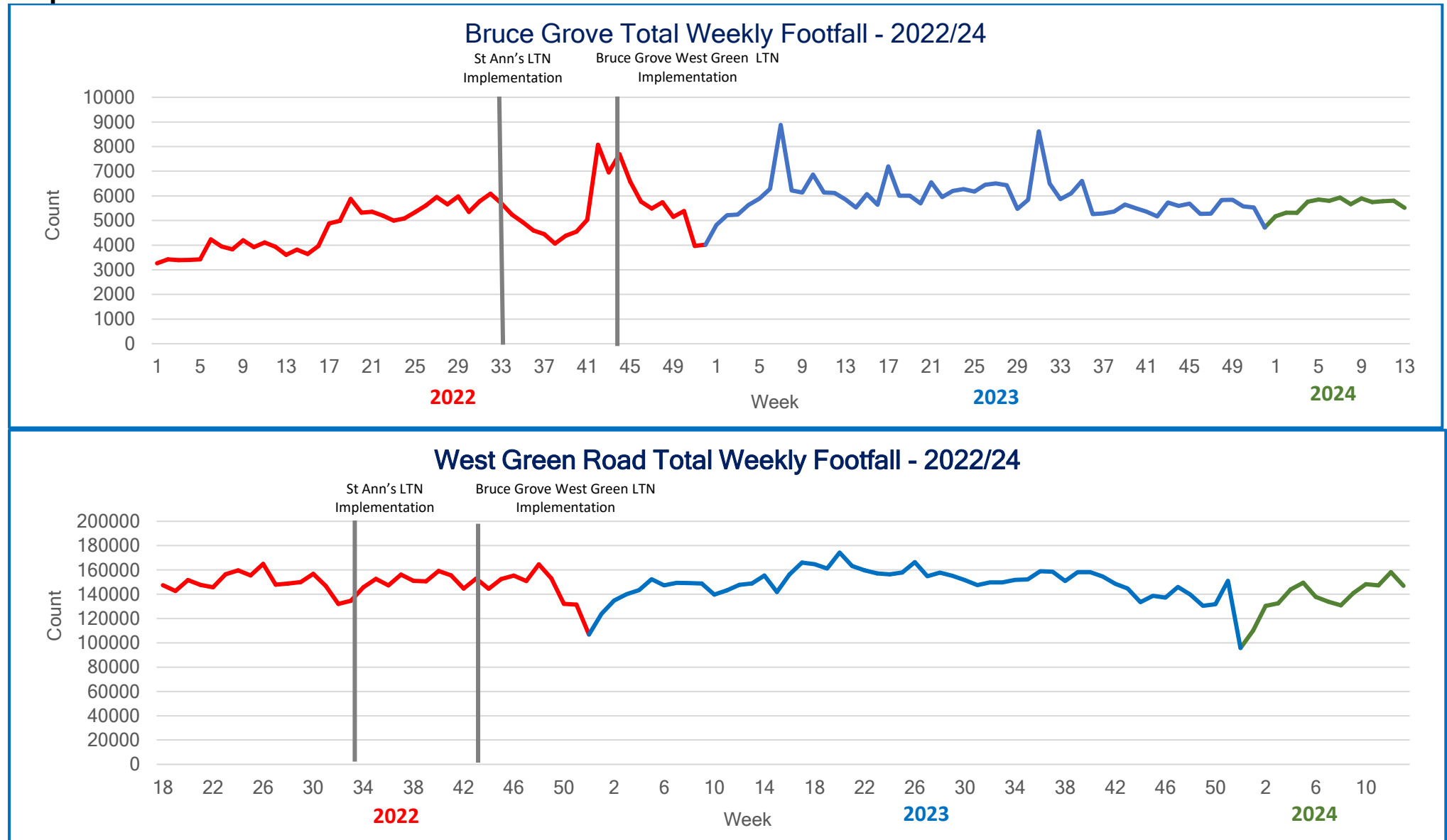
Insights: Footfall within the LTN

In West Green Road / Seven Sisters, generally, footfall has increased for around half of the weeks since the first week of implementation of both LTNs (37 out of 83 weeks since the introduction of St Ann's LTN, 48 out of 73 weeks since the introduction of Bruce Grove LTN). When comparing Post LTN data to Pre LTN data more broadly, absolute values suggest that footfall has increased.

In Bruce Grove, footfall has on average increased following the implementation of both LTNs.

In both locations, it is noted that significant fluctuations in footfall coincide with events at Tottenham Hotspur Stadium. The general decrease observed around Christmas week is consistent with other high streets. As such, it is noted that fluctuations may be induced by seasons and nearby events.

Therefore, the footfall analysis has indicated that footfall has generally increased since the implementation of the LTNs. However, this may not have been caused directly by the LTNs.

Instore Card Spend within the LTN

In addition to a footfall analysis, instore card spend has been analysed to evaluate whether businesses have been impacted by the LTN scheme. Both West Green Road / Seven Sisters and Bruce Grove business locations have been included as they are close to the Bruce Grove West Green LTN. Instore card s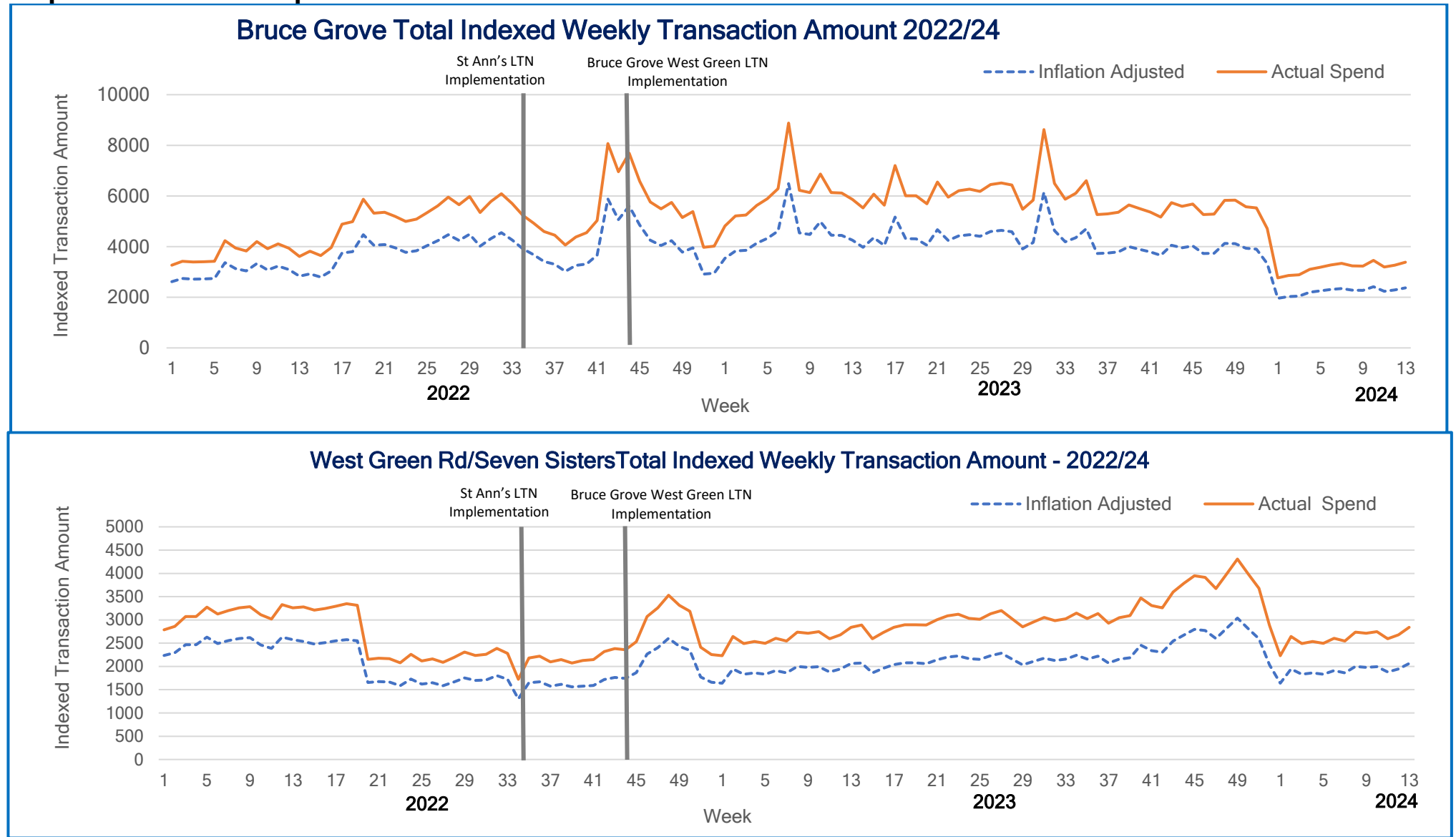pend data in the Bruce Grove West Green scheme area is available between 2022 and mid-March 2024. Index transaction amounts before and after the implementation of the LTN are shown on the following page.

Methodology – GLA London Datastore Mastercard Retail Location Index
Mastercard's Retail Location Index (MRLI) uses anonymised and aggregated transaction data from billions of cards to measure sales, transactions, and accounts. Mastercard uses the geocoded location of merchants aggregated to an area and transaction data to create a timeseries. The data only includes physical sales (i.e. not online). The MRLI is a relative index compared to a common base area and time frame for each measure. The index is provided to the GLA at a 150m resolution, which has been combined into the geographies. Haringey Council uses the data to compare month-month and year-on-year spend on the high streets.

It is noted that due to the proximity of the St Ann's LTN scheme, both Bruce Grove West Green and St Ann's LTNs have been considered for this analysis.

Graph 13: Instore Card Spend

Bruce Grove Total Indexed Weekly Transaction Amount 2022/24

- - - - Inflation Adjusted   —— Actual Spend

St Ann's LTN Implementation

Bruce Grove West Green LTN Implementation

Indexed Transaction Amount

2022   Week   2023   2024

West Green Rd/Seven SistersTotal Indexed Weekly Transaction Amount - 2022/24

- - - - Inflation Adjusted   —— Actual Spend

St Ann's LTN Implementation

Bruce Grove West Green LTN Implementation

Indexed Transaction Amount

2022   Week   2023   2024

94

Insights: Instore Card Spend within the LTN

In West Green Road / Seven Sisters, card spend has been higher since the first week of both LTN scheme implementation. Following a drop observed immediately after the introduction of the LTNs, card spend levels have since generally increased. It is noted there was a drop towards the end of 2023, but this was also observed at a similar period in 2022. Despite an initial drop in 2024, card spend has been increasing and returning to Pre-LTN levels. Indexed instore card spend was higher in 33 of the 52 weeks in 2023 than in 2022, indexed card spend is higher in 7 of the 13 weeks to date in 2024 than the same weeks in 2022 and than all 13 same weeks in 2023.

In Bruce Grove, following a drop observed immediately after the introduction of the LTNs, card spend has generally increased. Card spend has generally exceeded Pre-LTN levels, however a significant drop in card spend was observed at the start of 2024. Indexed instore card spend was higher in 45 of the 52 weeks in 2023 than in 2022, it was higher in all the 13 weeks to date in 2024 than the same weeks in 2022, and higher in 4 of the 13 weeks to date in 2024 than the same weeks in 2023. It is noted that transaction amounts fluctuate considerably following the implementation of the schemes.

It is noted that there are wider impacts on spend to consider, including cost of living, inflation and the energy crisis. It is also noted that pre-pandemic numbers of transactions are lower than post pandemic due to a recent increase in card payments. Furthermore, instore card spend in West Green Road/Seven Sisters district centre is statistically lower than all the other district centres.

Despite a drop in card spend observed in early 2024, Post-LTN card spend has generally been similar to or has exceeded Pre-LTN levels. However, no causal relationship between the introduction of the LTNs and the instore card spend can be made.

Exemptions

Exemptions allow [specific groups of motorists](#) to drive through one or more traffic filter. This benefits some motorists (typically those with greatest accessibility needs) by allowing them to pass through an LTN traffic filter, but it reduces the overall effectiveness of the LTN by increasing the volume of through-traffic. The following table explains the circumstances where motor vehicles are exempt:
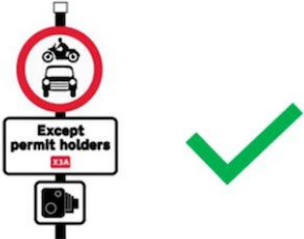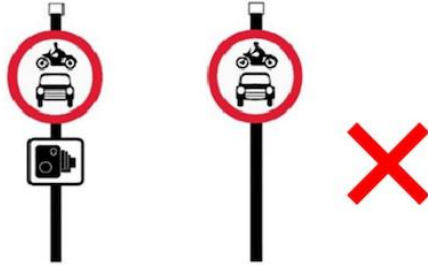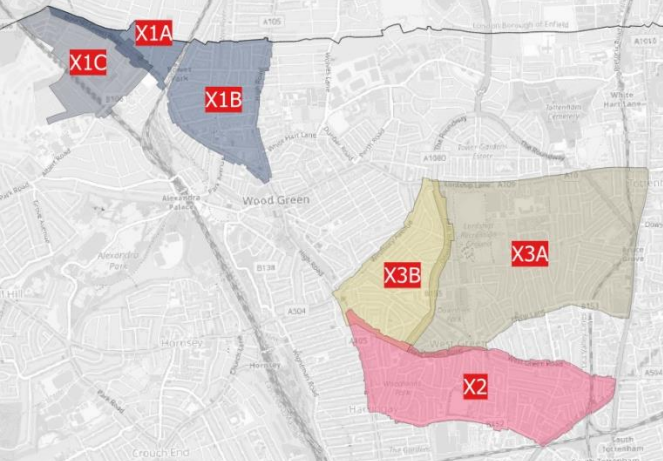
Table 31: Restriction Applications

Moving traffic restrictions (LTN traffic filters) do not apply to:	Exemption permits (eg X1, X2, X3) may be issued, upon application, to:
- any motor vehicle when used for fire brigade, ambulance or police purposes; - any motor vehicle when used in an emergency by Hatzolah north west ambulance service. - anything done with the permission or at the direction of a police constable in uniform; - any person who causes any vehicle to proceed in accordance with any restriction or requirement indicated by traffic signs placed pursuant to section 66 or section 67 of the Road Traffic Regulation Act 1984; - permit holders (eg X1, X2, X3) *(see right for detail)* - local buses (only where traffic signs allow them to proceed) - Council refuse and cleansing vehicles - Pedal cycles - motor vehicles authorised by Haringey Council for the transport of a person with special education needs and disabilities (SEND) to facilitate home to school transport. - vehicles that have written permission from the Council, authorised by the Assistant Director for Direct Services, provided that any conditions or requirements imposed are being complied with.	- One motor vehicle nominated by a person who holds a valid disabled badge living within the London Borough of Haringey; - any motor vehicles authorised by Haringey Council for the transport of a person with special education needs and disabilities (SEND) to facilitate home to school transport; - any motor vehicles authorised by Haringey Council services and commissioned services transporting people with a disability and Transport for London's Dial-a-ride service; - any other motor vehicles required for urgent safety matters with written permission of the Council. - any motor vehicle with individual circumstance to drive through a designated filter and with the written permission of the Council, provided that any condition or requirements imposed are being complied with, including - Person, or person with a child, with a condition that means sitting in a car or a re-routed journey causes overwhelming psychological distress; - Person, or person with a child, with a chronic health condition that makes sitting in a car very difficult; - A professional carer whose ability to transport a care recipient in a car or directly assist them with their care needs is significantly impaired by an LTN; - An organisation that solely transports people with access or disability needs.

Depending upon the criteria that the applicant applied under, exemptions can be approved for (a) one specific traffic filter, (b) a group of filters, (c) the entire LTN* or (d) all three trial LTNs* as explained in the following table.

Table 32: Exemption Coverage

What the exemption covers	What the exemption does not cover	Map of LTNs and corresponding permit identifiers
This exemption lets you drive your exempt vehicle through all traffic filters that have an 'Except permit holders' sign underneath a 'No motor vehicles' sign (a red circle containing a picture of a motorbike and a car). The 'Except permit holder' signs will have one of the following letter and number combinations: • Bounds Green LTN will show X1A, X1B or X1C • St Ann's LTN will show X2 • Bruce Grove West Green LTN will show X3A or X3B 	You cannot drive through traffic filters that do not have an 'Except permit holders' sign under the red circle sign. If you do, you'll get a fine – also known as a 'penalty charge notice'. 	

*where the traffic signs include the 'except permit holders' variant, shown above.

Quantity of exemptions

The following figure illustrates the number of online exemption permit applications that have been received and approved and include at least one filter within Bruce Grove West Green LTN, for the period between the LTN launch and 1 October 2024.

Graph 14: Exemptions Breakdown

Applications
6716

Approved	On-hold	Rejected
5277	459	980

1+ filter in Bruce Grove West Green LTN (X1)	1+ filter in St Anns LTN (X2)	1+ filter in Bounds Green LTN (X3)
3488		

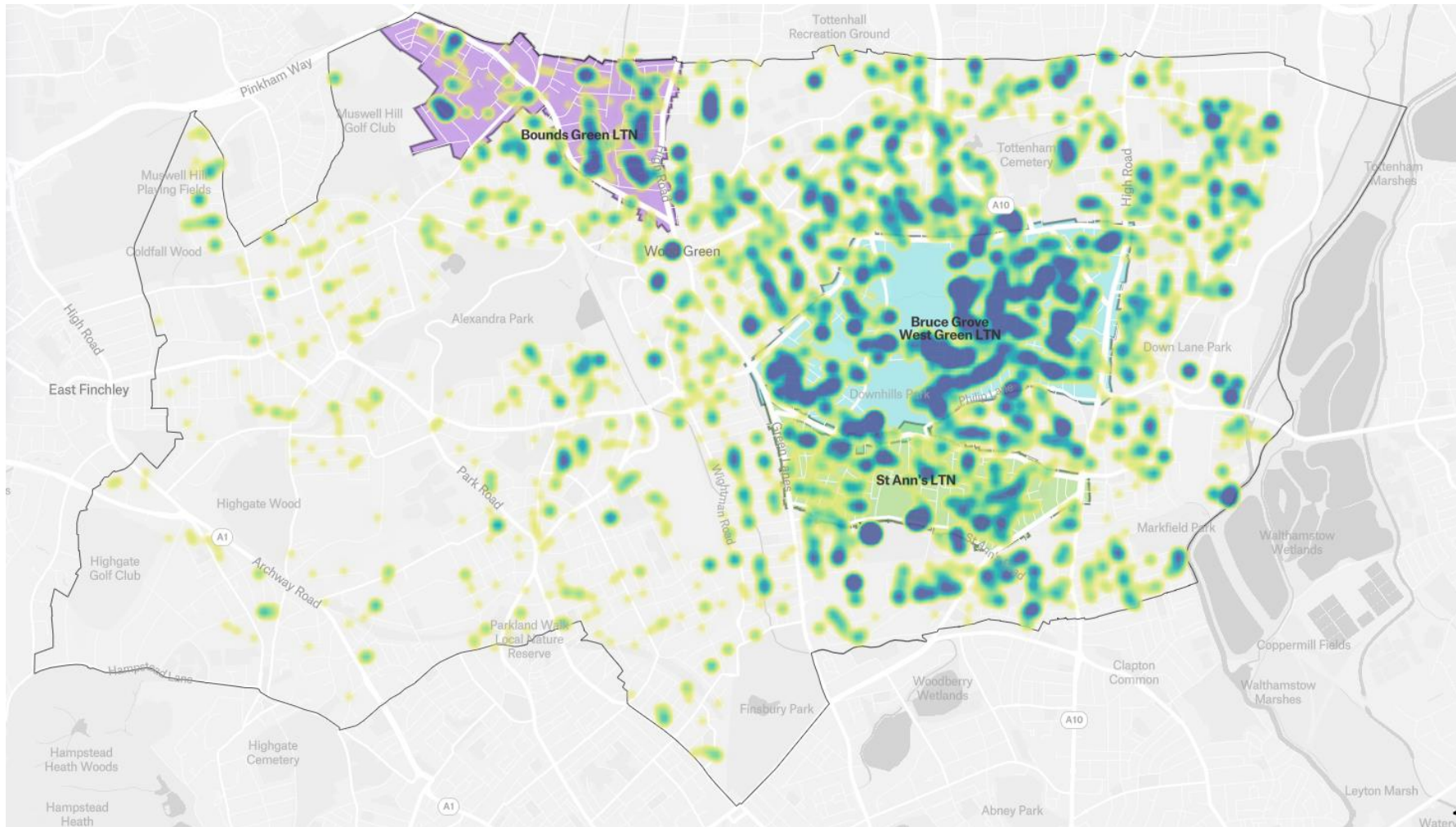| Haringey Blue Badge holder	Individual circumstance	Enfield (Bowes QN) Blue Badge holder	Urgent Safety Matter
3118	310	14	46
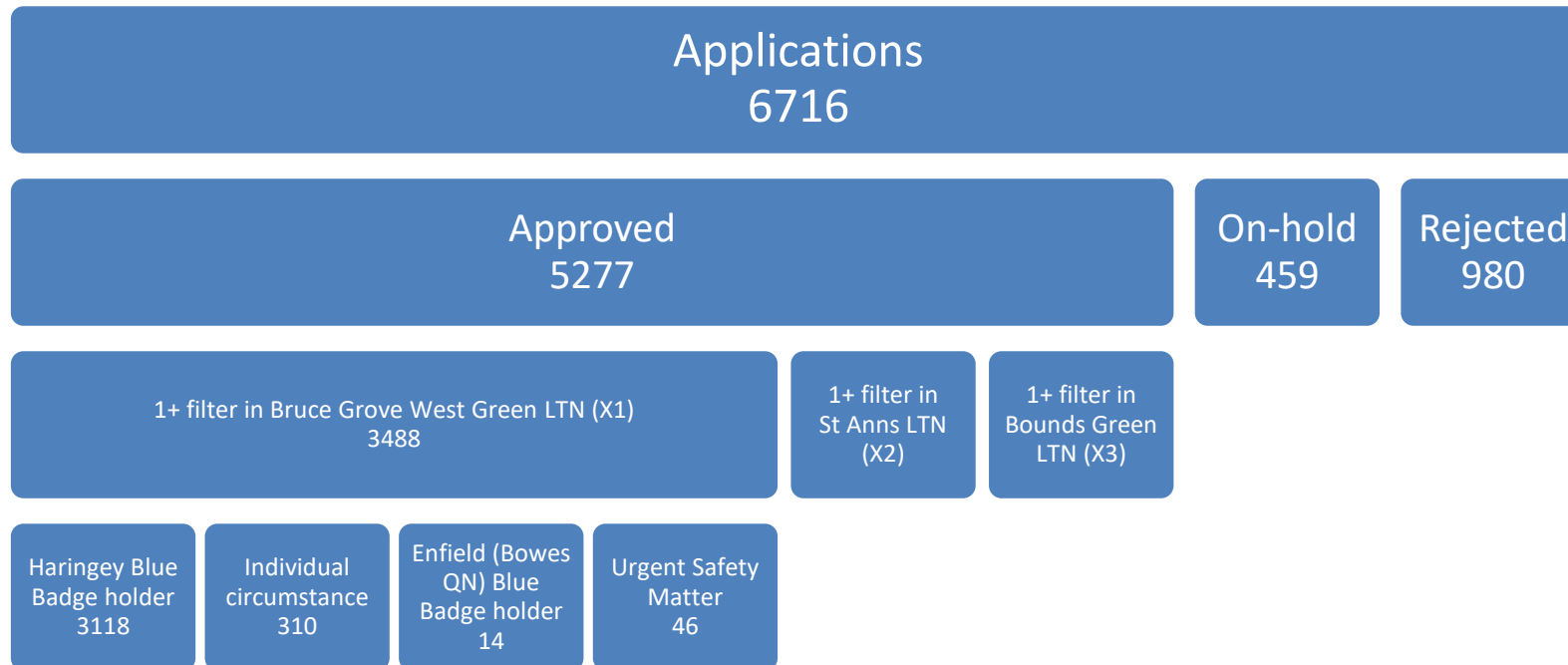
Distribution of exemptions

The following heatmap shows the distribution of approved exemptions and only where the exemption is valid for one or more traffic filter in Bruce Grove West Green.

Map 19: Exemption Distribution Heatmap

Insights: Exemptions

Exemptions have been available since the launch of the LTN and, following the interim review, were extended so that all Blue Badge holders living in Haringey could apply to drive through most of the traffic filters that are enforced by camera (previously, exemptions were available only for Blue Badge holders who lived within or on the immediate boundary of the LTN).

Most (79%) of applications have been approved. Those categorised as 'on-hold' (7%) are where an incomplete application has been made e.g. the applicant has not provided all the necessary evidence. The exemption team will have contacted the applicant and asked for further details, but a response has not yet been received. Those rejected (15%) are where the applicant has not met the criteria for an exemption.

The majority of exemption permits have been issued to motorists who applied under the 'Haringey Blue Badge holder' (89%) or 'Individual Circumstances' (8%) criteria. In those cases, exemptions are generally valid across all three trial LTNs (where the traffic filter displays the relevant permit code (X1, X2, X3)).

Unsurprisingly, most applications are made by people who live within the LTN. However, of those who live outside an LTN, there is a significantly larger proportion of applicants living in the east of the borough than in the west; this aligns with health and deprivation data that shows that communities in the east of the borough have higher levels of long-term health conditions and, therefore, are more likely to be eligible for an exemption under the Blue Badge or Individual Circumstance criteria.

Concluding Remarks

This Post LTN-Now monitoring report demonstrates that, in general, the Bruce Grove West Green LTN is delivering the intended local impacts in terms of a reduction in motorised traffic volumes on internal roads without significant impact to most boundary roads.

The following table summarises the key takeaways for each vehicle classification in Bruce Grove West Green boundary and internal roads.

Table 33: Key Takeaways in the Bruce Grove West Green LTN

Vehicle Classification	Pre LTN vs Post LTN-Now (Nov 2021 vs. Nov 2023)	
	Internal Roads	Boundary Roads
Motorised Vehicles (volume, normalised)	-43,316 vehicles (-51%)	+5,078 vehicles (+3%)
HGVs (volume, normalised)	-1,014 HGVs (-53%)	+1,000 HGVs (+22%)
LGVs (volume, normalised)	-2,474 LGVs (-41%)	+72 LGVs (+1%).
Motorcycles (volume, normalised)	-1,780 motorcycles (-35%)	+1,225 motorcycles (+17%)
Cycles (volume, observed)	+1,222 cycles (+33%)	+492 cycles (+17%)
Speeding (normalised)	-1mph (-5%)	-1.8mph (-9%)

Internal roads have seen a decrease of 43,316 vehicles (-51%), whereas boundary roads have observed an increase of 5,078 vehicles (+3%). This is very similar to the results observed in the Post LTN-Interim (January 2023) counts, which had observed a reduction of 43,623 vehicles (-51%) compared to Pre LTN (November 2021) results. As described in the introduction, these figures do include instances where vehicles journeys have been counted multiple times, but it considered that these totals are accurate in their magnitude and direction of change – indicating that the scheme is performing well against its strategic objectives, and will help reclaim local streets for the people that live on them by making them safer and more welcoming for those choosing to walk, wheel, scoot or cycle for their local journeys.

More specifically, internal roads such as Langham Road and Downhills Park Road have seen reductions of 91% and 89% respectively since the introduction of local modal filters. Some of the internal roads that have seen increases, such as Sandringham Road, can likely be explained by the fact that they are now the primary entry or exit points into their respective LTN 'cells', and these increases tend to be smaller in magnitude than the decreases elsewhere. Sites such as these will need to be monitored closely to understand if these trends are short term or will need to be addressed.

Boundary roads present a more mixed picture, displaying an increase of 5,078 vehicles, or 3%. Increases in traffic flows were higher between the Pre LTN and Post LTN-Interim phases (+13,843 vehicles, +9%), which suggests that people have adapted their journeys accordingly. However, boundary roads will need to continue to be monitored. West Green Road (at both Carlingford and Etherley Road), A1080 Westbury Avenue (@Willingdon Road) and B155 Belmont Road, in particular, have seen significant increases in traffic volumes.

There was an overall decrease of 2,474 LGVs and of 1,014 HGVs between November 2021 and November 2023 across internal roads. However, the proportion of LGVs increased by 5 percentage points, and HGVs by 1 percentage point. The total number of LGVs (+72) and HGVs (+1,000) increased on boundary roads.

Motorcycle volumes decreased across most internal roads, resulting in a decrease of 1,780 motorcycles per day. However, with this decrease of 35% came an increase in proportional representation from 8% to 10% (or 2 percentage points). For boundary roads, it appears that motorcycles have increased at a higher rate than total motorised traffic, with an increase of 17% or 1,225 daily vehicles. However, this does not affect the proportion of motorcycles on boundary roads, which remains 5%. These figures may indicate less flexibility for motorcycles (and motorcycle-based deliveries) and good vehicles than for general traffic in terms of routing options.

Cycling levels increased across both internal roads and boundary roads between November 2021 and November 2023, with cycling levels increasing by 33% (+1,222 daily cycles) on internal roads and by 17% (+492 daily cycle) on boundary roads. The majority of roads contributed to the overall increase. On internal roads, Broadwater Road, Downhills Park Road (@Downhills Park), Higham Road, Napier Road and St Loys Road observed changes of over 100 daily cycles, with the largest change being St Loys Road with 164 additional cycles (+112%). Boundary roads present a more mixed picture, with B153 Philip Lane seeing a large increase (+483 daily cycles) whilst A504 West Green Road (@Etherley Road) saw a decrease of 117 daily cycles. Most boundary roads observed increases in cycling levels, thus contributing to the overall increase. It is noted that these increases in cycling were in spite of considerably rainier weather in the Post LTN-Now (November 2023) month as compared to the Pre LTN (November 2021) month. The volume of dockless bikes traveling within the scheme area has also seen a significant increase since they were introduced, likely partially contributing to the overall increase in cycles counted.

With relation to the impact of the Bruce Grove West Green LTN on air quality, monitoring sites within the LTN area and on its boundary roads are in line with borough-wide trends, suggesting a negligible impact from the LTN introduction. Haringey will continue to monitor the air quality across the borough and within all LTN scheme areas, particularly at the two sites highlighted in the Air Quality chapter. Additional monitoring has already been installed at those two sites in early 2024.

With relation to wider safety and economic impacts of the LTNs, road collision, crime patterns, footfall, and card spend have been analysed. The volume of criminal activity reports in the scheme area and in the borough-at-large are broadly similar, both before and after the scheme's introduction. Footfall has generally increased since the implementation of the LTNs. Despite a drop in card spend observed in early 2024, Post-LTN card spend has generally been similar to or has exceeded Pre-LTN levels. There is no indication that crime patterns, footfall and instore card spend within the Bruce Grove West Green LTN area have been impacted by the introduction of the LTN scheme specifically. Similarly, the number of collisions decreased from the year before LTN implementation to the year after; however, the sample size and location of collisions does not provide sufficient evidence to draw a causal relationship between the scheme and road safety.

Following an interim review, exemptions for Haringey LTNs were extended to all Blue Badge holders in the borough, with 79% of applications approved, most permits issued to those under the Blue Badge or Individual Circumstance criteria, and a higher proportion of applicants from the more deprived east of the borough.

The Bruce Grove West Green LTN has been in place for around two years at the time of writing this final monitoring report. It can be broadly seen to be achieving its main objectives of reducing traffic volumes on internal roads which in turn makes them safer, more pleasant, and more attractive for people to walk and cycle.

Appendices

Appendix 1: Bruce Grove West Green Traffic Count Locations and Type

Haringey-commissioned traffic count sites and type

Site	Latitude	Longitude	Site Type
A105 Green Lanes (@Carlingford Road)	51.589335	-0.102431	ATC
A10 Bruce Grove (@The Avenue/Woodside Gardens)	51.595731	-0.071721	Video
A1080 Westbury Avenue (@Mannock Road)	51.592278	-0.100123	ATC
A1080 Westbury Avenue (@Willingdon Road)	51.594604	-0.096296	ATC
A109 Lordship Lane (@Elsden Road)	51.598689	-0.072492	ATC
A109 Lordship Lane (@Waltheof Avenue)	51.597876	-0.087721	ATC
A504 West Green Road (@Carlingford Road)	51.58687	-0.096709	ATC
A504 West Green Road (@Etherley Road)	51.586062	-0.091819	ATC
Adams Road	51.595579	-0.082249	ATC
The Avenue (@Broadwater Road)	51.594336	-0.075375	ATC
The Avenue (@Mount Pleasant Road/Marden Road)	51.593689	-0.078736	ATC
B153 Philip Lane	51.588632	-0.08182	ATC
B155 Belmont Road	51.58756	-0.094476	ATC
B155 Downhills Way	51.593325	-0.090923	ATC
Broadwater Road	51.597166	-0.075889	ATC
Carlingford Road	51.587112	-0.096376	ATC
Carlingford Road (@Crescent Road/Green Lanes)	51.589762	-0.101374	ATC
Chandos Road	51.595032	-0.076603	ATC
Clonmell Road	51.588729	-0.083542	ATC
Dongola Road	51.589315	-0.079692	ATC
Downhills Park Road (@Kirkstall Avenue/Philip Lane)	51.588482	-0.084519	ATC
Downhills Park Road (@Downhills Park)	51.590971	-0.08908	ATC
Drayton Road	51.594449	-0.077514	ATC
Elmhurst Road	51.59621	-0.073307	ATC
Elsden Road	51.598602	-0.071889	ATC
Forster Road	51.591838	-0.070678	ATC

Gloucester Road	51.589354	-0.081688	ATC
Greyhound Road	51.591425	-0.074426	ATC
Handsworth Road	51.590331	-0.082406	ATC
Hartham Road	51.596729	-0.072421	ATC
Higham Road	51.59224	-0.082769	ATC
Keston Road	51.587711	-0.086262	ATC
Kitchener Road	51.589157	-0.080603	ATC
Langham Road	51.586672	-0.09124	ATC
Linley Road	51.5973044	-0.0745005	ATC
Lordsmead Road	51.598159	-0.077318	ATC
Mannock Road	51.591488	-0.098107	ATC
Moorefield Road	51.592955	-0.07114	ATC
Mount Pleasant Road (#145/The Avenue)	51.593542	-0.078256	ATC
Mount Pleasant Road (#316/Lordship Lane)	51.5976676	-0.0784272	ATC
Mount Pleasant Road (#5/Philip Lane)	51.589489	-0.078922	ATC
Napier Road	51.589952	-0.076697	ATC
Newlyn Road	51.598049	-0.070895	ATC
Pembury Road (#1/High Road)	51.596959	-0.068804	ATC
Pembury Road (#59/Lordship Lane)	51.598042	-0.069576	ATC
Radley Road	51.596435	-0.07496	ATC
Ranelagh Road	51.592269	-0.074393	ATC
Rusper Road	51.59257	-0.093552	ATC
Sandringham Road	51.593284	-0.093499	ATC
Sperling Road	51.593486	-0.072888	ATC
St. Loys Road	51.592485	-0.070784	ATC
Stanmore Road	51.587887	-0.097652	ATC
Steele Road	51.592649	-0.075167	ATC
Vincent Road	51.586797	-0.093505	ATC
Walpole Road	51.591821	-0.090268	ATC
Wilmot Road	51.591538	-0.086537	ATC
Wimborne Road	51.595684	-0.076693	ATC

| Winchelsea Road | 51.591972 | -0.072608 | ATC |
| Woodside Gardens | 51.594069 | -0.074326 | ATC |

TfL permanent traffic sites and coordinates (all ATCs)

Site	Latitude	Longitude	Site Type
A1055 Great Cambridge Road NB	51.609531	-0.085715	Permanent ATC
A1055 Great Cambridge Road SB	51.609111	-0.0854853	Permanent ATC
Bruce Grove	51.597282	-0.0735916	Permanent ATC
Great Cambridge Road NB	51.617411	-0.0864079	Permanent ATC
Great Cambridge Road SB	51.618248	-0.0855269	Permanent ATC
Green Lanes	51.572252	-0.0968812	Permanent ATC
High Road Tottenham	51.579888	-0.0728362	Permanent ATC
NCR Bowes Road	51.612497	-0.1189113	Permanent ATC
NCR Stirling Way EB	51.614228	-0.0778041	Permanent ATC
NCR Stirling Way WB	51.614483	-0.0778925	Permanent ATC
Seven Sisters Road	51.575750	-0.0849741	Permanent ATC
A1055 Great Cambridge Road NB	51.609531	-0.0857153	Permanent ATC

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 extremely accurate. 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 was used before and after and the method is considered a good industry standard. ATCs have been used as a standard in monitoring transport schemes.

Appendix 2: Traffic Count Normalisation Methodologies

To calculate the normalised percentage differences, the November 2021 traffic count volumes have been divided by 0.9894, the January 2023 traffic counts by 0.9516, and the November 2023 traffic counts by 0.9776 to give normalised volumes. In other words, in order to account for the fact that there was (generally) less traffic on Haringey streets from March 2020 onwards, we have provided adjusted figures that provide an estimate for what the traffic would have been if there had not been disruptions from broad events such as COVID-19 or the ongoing cost-of-living crisis. This allows us to analyse the impacts of the LTN scheme rather than the impacts of current events / central government policy.

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

The normalisation figure for each month is reached by calculating the daily average percentage difference between the 'Pre LTN' month (pre-COVID-19 impact) and the corresponding 'impacted' month (i.e. November 2021, January 2023 and November 2023) across all the permanent TfL counter sites around Haringey and taking an average difference for the whole month.

Appendix 3: Air Quality Monitoring

The London Borough of Haringey's air quality strategy has been outlined in the borough's [2019-2024 Air Quality Action Plan](). The document introduces a range of actions to improve air quality, such as reducing emissions from developments and buildings, incentivising cleaner transport and greening servicing and freight operations.

Part of the air quality strategy remains to improve the breadth of air quality monitoring in the borough. Haringey has been using diffusion tubes for air quality monitoring since before 2018, and now have 37 long-term monitoring sites, with more being added over time. A further set of diffusion tubes within or on the boundary of LTNs were added specifically to understand the impact of air quality of LTNs, 10 of which were within the bounds of the Bruce Grove West Green scheme.

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

Bruce Grove West Green LTN air quality monitoring sites type and period of installation (diffusion tubes)

Location	Postcode	Defra Classification
Harris Primary Academy, Philip Lane	N15 4AE	Roadside
Bruce Grove Primary School, Sperling Road	N17 6UL	Urban Background
471 High Road	N17 6QA	Roadside
87 Bruce Grove	N17 6UZ	Roadside
Park View Academy, Langham Road, London	N15 3RA	Urban Background
104 Westbury Ave	N22 6RT	Roadside
85 Downhills Way	N17 6AL	Roadside
6 Green Lanes	N15 3EA	Roadside
The Grove School, Downhills Park Road	N17 6AR	Urban Background
73 Broadwater Road	N17 6EP	Urban Background

Data quality control

To ensure data is as accurate as possible, national guidance for monitoring air quality (in terms of both deployment and results analysis), is followed – for example, such guidance requires the use of accredited monitors, personnel and laboratories or correction of diffusion tube data based on annual comparisons to automatic monitors.

Air quality in Haringey is monitored using diffusion tubes. The existing monitoring stations currently measure the concentration of Nitrogen Oxides (NOx) in the atmosphere.

Overall monitoring for Particulate Matter (PM) across London shows that the current objective values are largely met, therefore, monitoring for PM10 (up to 10μm across) and PM2.5 (up to 2.5μm across) ceased in Haringey in 2014 and 2016 respectively. Monitoring for both started again in May 2021 at our Wood Green monitoring site, locally funded by the borough.

Under Part IV on the Environment Act 1995, local authorities are required to periodically review and assess air quality in their area and identify areas where the air quality objectives are not likely to be met. The air quality objectives are set out for the seven pollutants in the Air Quality (England) Regulations 2000. The objectives are based on the health effects of air pollution. For areas where the air quality objectives are not likely to be achieved, local authorities have to declare Air Quality Management Areas (AQMA) and produce Air Quality Action Plans (AQAP) detailing measures to work towards the achieving the air quality objectives. Following extensive review and assessment of all seven pollutants, Haringey Council declared the whole borough an AQMA for the pollutants of PM10 and NO_2 in July 2001.

Haringey, like all authorities with AQMAs, has to produce annual reports for both Defra (Department for Environment, Food & Rural Affairs) and the Greater London Authority (GLA) to show trends in air pollution and progress towards achievement of the air quality objectives for the pollutants concern. The latest status report can be found on the Haringey website by following the link below.

https://new.haringey.gov.uk/sites/default/files/2024-09/air_quality_annual_status_report_for_2023.pdf

Pollution levels are impacted by a range of local and wider sources, which can have national or even international origins. Therefore, it can be very hard to pick up on local changes caused by schemes such as the LTNs.

Pollution also varies significantly 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 NO_2 levels but no consistent change in PM due to weather impacts.

Appendix 4: SYSTRA Statement

SYSTRA has been commissioned to prepare this report in partnership with the London Borough of Haringey.

SYSTRA is a global leader in mass transportation and mobility, employing over 10,000 global employees across 80 countries. SYSTRA has the unique advantage of being not only a Transport Consultancy, but also Social and Market Research Consultancy. Their team members have an in-depth understanding of both the transport sector and of social and market research techniques, providing expert support in monitoring and evaluation both direct to clients and also in a peer review capacity. They provide a wealth of experience in conducting both qualitative and quantitative transport research with stakeholders to help understand their priorities and to inform options for future investment and policy development.

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

Appendix 5: Individual Site Volumes & Speeds

The following section provides detail for each monitored site including a breakdown of flows and speeds by monitoring period and by vehicle class.

As noted in the main report, data was processed using SYSTRA's proprietary automated data processing tools, which draw together raw data from all reporting periods and apply formulae-based calculations to produce the charts and tables shown in the following pages and appendices. However, as it is not uncommon for there to be problems with data surveys (broken equipment, cars parked on ATC bands etc.) as well as anomalous readings from surveys resulting from one-off events (waterworks, gas leaks, accidents etc.), all data has been thoroughly checked by hand and "patched" (i.e. blank data or significantly anomalous data has been substituted by more representative data from the site/wave in question), which is a necessary task in order to maintain comparable data.

It is also noted that data for goods vehicles is presented as seven-day averages in the Appendix (vs. weekday averages in the report).