St Ann's 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 (15 August 2022), St Ann's LTN (22 August 2022), and Bruce Grove West Green LTN (1 November 2022). In the St Ann's LTN trial area, the council installed seven traffic filters to prevent motor vehicles from cutting through the local area.

This final monitoring report provides data and insights relating to the St Ann's 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.

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 St. Ann's trial area are the following sites: A503 Seven Sisters Rd (@Gourley Street), A504 West Green Road (@Bedford Road/Lawrence Road), A504 West Green Road (@Carlingford Road), A504 West Green Road (@Etherley Road), A504 West Green Road (@Suffield Road), Alfoxton Avenue, B152 Colina Road, B152 Harringay Road, B152 St. Ann's Road (@Chestnuts Park), B152 St. Ann's Road (@Hermitage Road/Cornwall Road), B152 St. Ann's Road (@Rowley Road/La Rose Lane) and B152 St. Ann's Road (@Salisbury Road).

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 St. Ann's 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 St. Ann's 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 St Ann's 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" means the data that was collected, which 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 and emergency vehicles 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 – St. Ann's 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 traffic taking shortcuts along local roads, creating a safer, cleaner and quieter neighbourhood for the people living there.

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
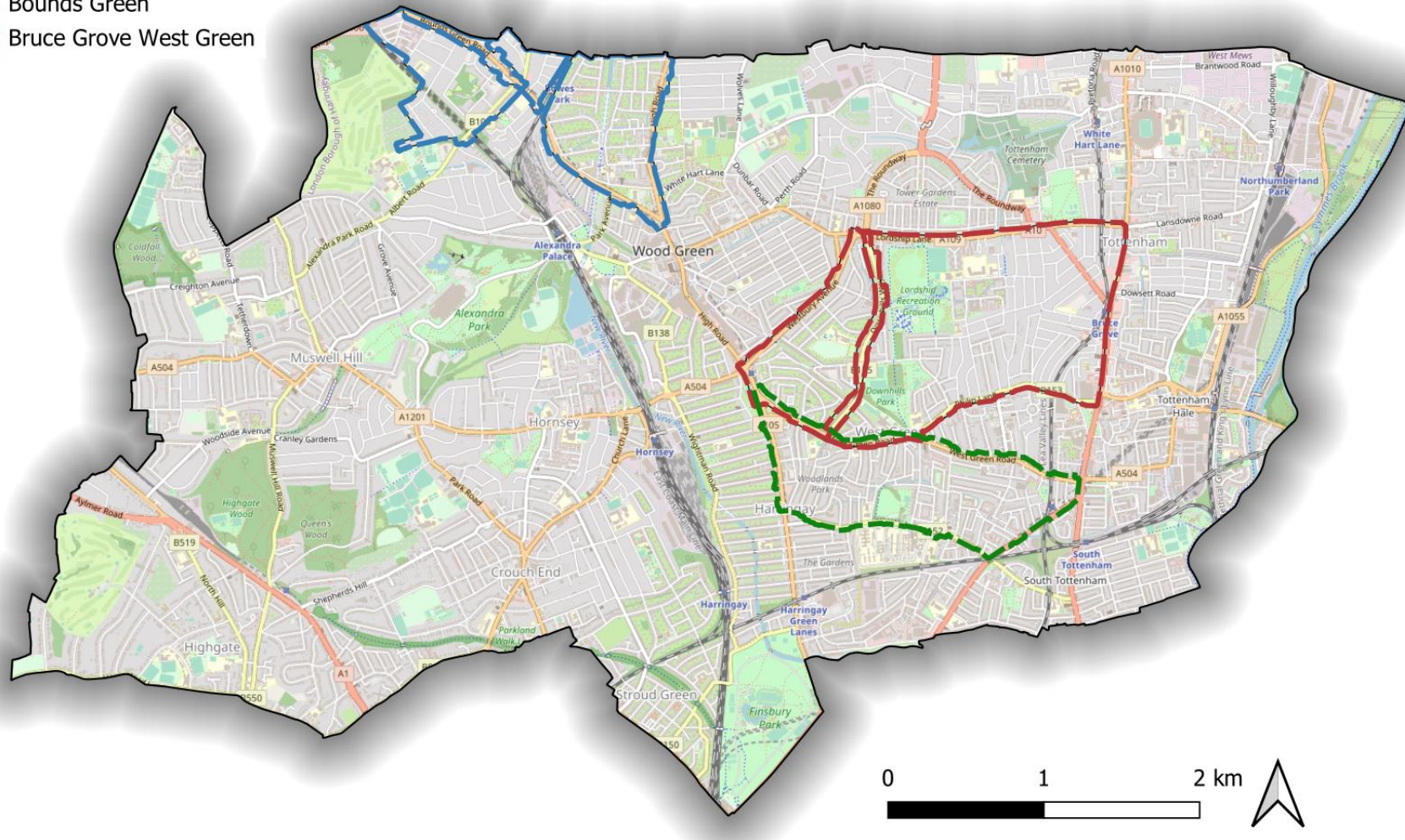
Scheme Context

For the St. Ann's LTN, the council has installed seven new traffic filters in the trial area to prevent motor vehicles from using local streets as through routes. This is 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 St Ann's LTN Filters

Traffic Filters

Scheme Extents

LTN Filters

Historic Filter

Introduction – Monitoring Report

This monitoring report provides data and insights relating to the St. Ann's LTN trial.

Graph 1: Monitoring Process

*The survey period varied across sites during this period to account for roadworks and other disruptions. Counts were undertaken for some sites in the second week of January 2023; for the remaining sites, counts were undertaken in the last week of the month.
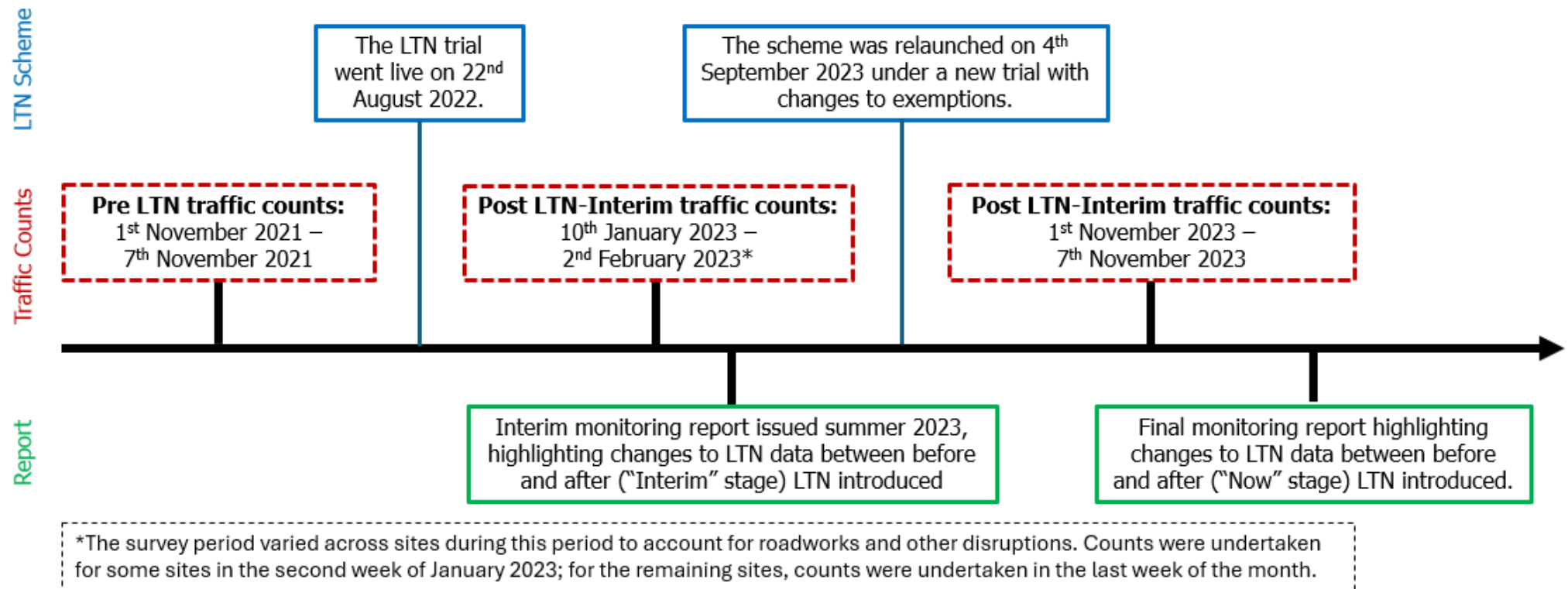
Traffic Counts Approach

The count data presented in this report is not traffic modelling, but actual observed traffic, comparing traffic flows in November 2021 to those collected in 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 St. Ann's area. ATCs measure motorised and cycle traffic volumes and motorised traffic speeds and classify the traffic by type and are able to collect data for all vehicles regardless of their speed of travel (including those traveling at <10kph). For this scheme, one video camera site was used on Seven Sisters Road. 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.

Map 3: St. Ann's LTN monitoring sites

Location of Traffic Monitoring Sites

- 🔵 Boundary Sites
- 🟢 Internal Sites
- ⬜ Scheme Extents

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 St Ann's counts, in August 2021 motorised traffic was approximately 1% lower than in November 2019 and in November 2023 motorised traffic was approximately 2% lower than in November 2019.

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 as there is no representative background dataset to use in the normalisation process; 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 instead 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, St Ann's LTN is directly south of on A504 West Green Road and shares a boundary road with the Bruce Grove West Green LTN. St Ann's and Bruce Grove West Green LTNs are located approximately 2km to the southeast of the Bounds Green scheme. It is considered that due to distance, any impacts from other Haringey LTN schemes on St Ann's 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 and Hackney to the south and Enfield to the north. All of these 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 2022, 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, 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.

The 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 #	Study Period	Report Designation
1	November 2021 (before LTN scheme)	Pre LTN (Nov-21)
2	January 2023 (LTN scheme)	Post LTN-Interim (Jan-23)
3	November 2023 (LTN scheme)	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 (November 2021) and Post LTN-Now (November 2023) data.

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 7, 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)

Legend:
Volume of Daily Motorised Vehicles Pre LTN
- Boundary Sites
- Internal Sites
- Scheme Extents
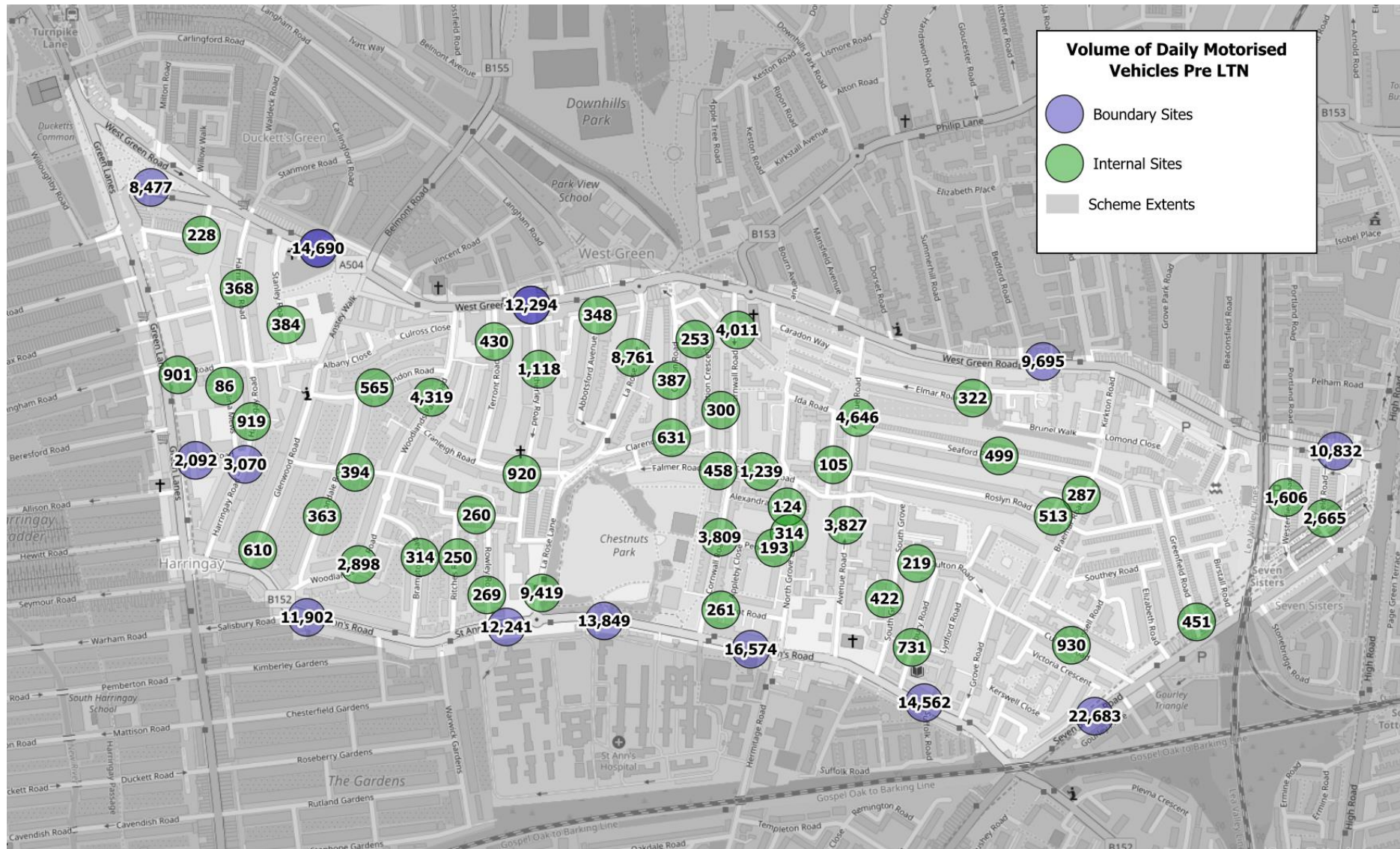
Map 5: Post LTN-Interim (Jan-23) Motorised Vehicle Volumes (Normalised)

Volume of Daily Motorised Vehicles Post LTN-Interim

- 🟣 Boundary Sites
- 🟢 Internal Sites
- ⬜ Scheme Extents

11,376
297
18,592
287
328
17,322
247
235
591
638
2,697
383
599
9,093
323
159
187
708
298
376
1,683
231
775
500
3,859 4,294
184
378
353 671
157
221
9,263
298
206
348
2,644
243
291 1,257
2,590
177
723
490
211 262
1,036
126
462 412
13,324
296 1,435
528
433
12,603
13,532
12,401
414
11,227
25,661

Map 6: Post LTN-Now (Nov-23) Motorised Vehicle Volumes

Volume of Daily Motorised Vehicles Post LTN-Now

- Boundary Sites
- Internal Sites
- Scheme Extents

Map 7: Percentage Change in Motorised Vehicle Volumes: Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)
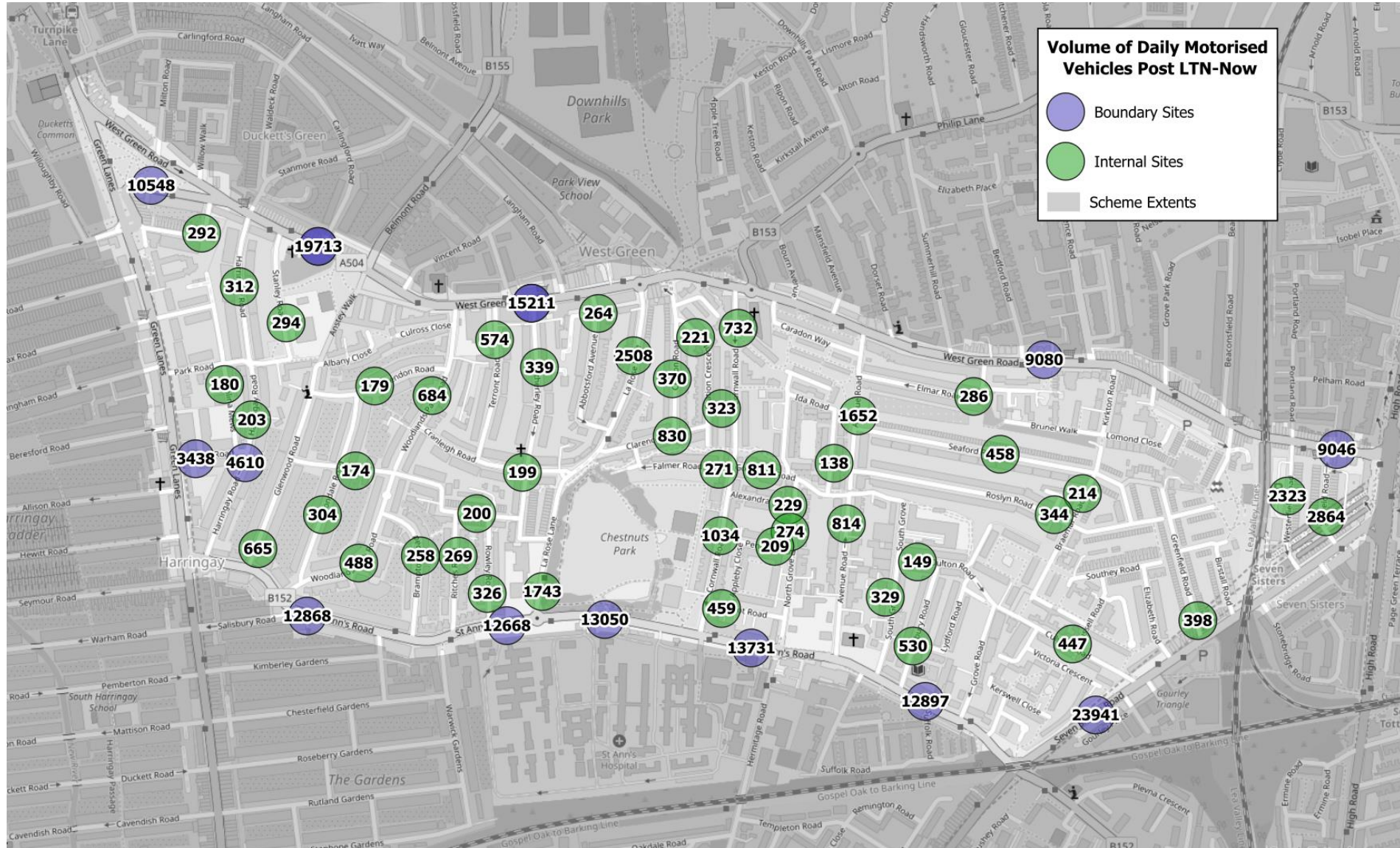
Table 3: Motorised Traffic Volumes on Internal Roads

	Pre LTN: Nov-21	Post LTN-Interim: Jan-23	Post LTN-Now: Nov-23	Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)	% Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)
Abbotsford Avenue	348	247	264	-84	-24%
Alexandra Road (@North Grove)	124	206	229	105	85%
Ascot Road	261	462	459	198	76%
Avenue Road (#41/Newsam Avenue)	3,827	1,257	814	-3,013	-79%
Avenue Road (#95/Ida Road)	4,646	1,683	1,652	-2,994	-64%
Avondale Road	363	298	304	-59	-16%
Brampton Road	314	211	258	-56	-18%
Breamar Road	287	221	214	-73	-25%
Cissbury Road	731	528	530	-201	-27%
Clarence Road	631	775	830	199	32%
Clarendon Road	565	187	179	-386	-68%
Clinton Road	387	383	370	-17	-4%
Colina Mews	86	159	180	94	109%
Conway Road (@Avondale Road/ Woodlands Park Road)	394	184	174	-220	-56%
Conway Road (@Rowley Road/Ritches Road)	260	243	200	-60	-23%
Cornwall Road (#47/ West Green Road)	4,011	591	732	-3,279	-82%
Cornwall Road (@Penrith Road)	3,809	1,036	1,034	-2,775	-73%
Cranleigh Road	920	378	199	-721	-78%
Culvert Road	930	414	447	-483	-52%
Dagmar Road	300	376	323	23	8%
Elmar Road	322	298	286	-36	-11%
Etherley Road	1,118	599	339	-779	-70%
Falmer Road	458	353	271	-187	-41%
Glenwood Road	610	723	665	55	9%
Gorleston Road	1,239	671	811	-428	-35%
Greenfield Road	451	433	398	-53	-12%
Harringay Road (#67)	919	231	203	-716	-78%
Harringay Road (#68)	368	287	312	-56	-15%
Ida Road	105	157	138	33	31%
La Rose Lane (#31)	8,761	2,697	2,508	-6,253	-71%
La Rose Lane (@Chestnuts Park)	9,419	1,435	1,743	-7,676	-81%
North Grove	314	291	274	-40	-13%
Oulton Road	219	126	149	-70	-32%
Park Road	901	323	329	-572	-63%
Penrith Road	193	177	209	16	8%
Ritches Road	250	262	269	19	8%
Roslyn Road	513	348	344	-169	-33%

Rowley Road	269	296	326	57	**21%**
Seaford Road	499	500	458	-41	-8%
South Grove	422	412	329	-93	**-22%**
St Margaret's Avenue	228	297	292	64	**28%**
Stanley Road	384	328	294	-90	**-23%**
Station Crescent	253	235	221	-32	**-13%**
Suffield Road	2,665	2,590	2,864	199	7%
Terront Road	430	638	574	144	**33%**
Westerfield Road	1,606	2,644	2,323	717	**45%**
Woodlands Park Road (#16/Clarendon Road)	4,319	708	684	-3,635	**-84%**
Woodlands Park Road (#87/Avondale Road)	2,898	490	488	-2,410	**-83%**
Total Internal Road*	**63,327**	**28,388**	**27,493**	**-35,834**	**-57%**

*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

	Pre LTN: Nov-21	Post LTN-Interim: Jan-23	Post LTN-Now: Nov-23	Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)	% Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)
A503 Seven Sisters Rd (@Gourley Street)	22,683	25,661	23,941	1,258	6%
A504 West Green Road (@Bedford Road/Lawrence Road)	9,695	9,093	9,080	-615	-6%
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%**
A504 West Green Road (@Suffield Road)	10,832	9,263	9,046	-1,786	**-16%**
Alfoxton Avenue	8,477	11,376	10,548	2,071	**24%**
B152 Harringay Road	3,070	4,294	4,610	1,540	**50%**
B152 Colina Road	2,092	3,859	3,438	1,346	**64%**
B152 St. Ann's Road (@Chestnuts Park)	13,849	13,532	13,050	-799	-6%
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	16,574	12,401	13,731	-2,843	**-17%**
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	12,241	12,603	12,668	427	3%
B152 St. Ann's Road (@Salisbury Road)	11,902	13,324	12,868	966	8%
B152 St. Ann's Road (@Suffolk Road)	14,562	11,227	12,897	-1,665	**-11%**
Total Boundary Road*	**152,961**	**162,547**	**160,801**	**7,840**	**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 5: Motorised Traffic Volumes on Key Internal Roads, Direction A (Normalised)

It is noted that Cornwall Road (#@Penrith Road) and (#47/West Green Road) have been removed in the northbound direction as this previously wasn't an available movement.

	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 (Nov-23) vs. Pre LTN (Nov-21)	% Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)
Avenue Road (#41/Newsam Avenue)	Northbound	3,817	1,214	776	-3,041	-80%
Avenue Road (#95/Ida Road)	Northbound	4,627	913	915	-3,712	-80%
La Rose Lane (#31)	Northbound	4,594	1,632	1,523	-3,071	-67%
La Rose Lane (@Chestnuts Park)	Northbound	4,495	771	867	-3,628	-81%

*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 (Nov-23) vs. Pre LTN (Nov-21)	% Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)
Cornwall Road (#47/West Green Road)	Southbound	4,008	574	680	-3,328	-83%
Cornwall Road (@Penrith Road)	Southbound	3,802	882	838	-2,964	-78%
La Rose Lane (#31)	Southbound	4,167	1,065	930	-3,237	-78%
La Rose Lane (@Chestnuts Park)	Southbound	4,924	664	837	-4,087	-83%

*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)

It is noted that Avenue Road (southbound), Alfoxton Avenue (eastbound), Harringay Road (southbound), Colina Road (eastbound) have been removed due to movement restrictions and changes made between Nov 2021 and Nov 2023.

	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 (Nov-23) vs. Pre LTN (Nov-21)	% Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)
A503 Seven Sisters Rd (@Gourley Street)	Eastbound	10,533	11,900	10,527	-6	0%
A504 West Green Road (@Bedford Road/Lawrence Road)	Eastbound	5,620	5,419	4,874	-746	**-13%**
A504 West Green Road (@Carlingford Road)	Eastbound	7,653	9,219	9,175	1,522	**20%**
A504 West Green Road (@Etherley Road)	Eastbound	6,628	9,345	8,150	1,522	**23%**
A504 West Green Road (@Suffield Road)	Eastbound	6,641	3,211	5,335	-1,306	**-20%**
B152 Harringay Road	Northbound	3,064	4,275	4,490	1,426	**47%**
B152 St. Ann's Road (@Chestnuts Park)	Eastbound	6,961	6,909	6,380	-581	-8%
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	Eastbound	10,499	6,669	7,305	-3,194	**-30%**
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	Eastbound	6,319	6,274	6,444	125	2%
B152 St. Ann's Road (@Salisbury Road)	Eastbound	5,989	6,378	6,293	304	5%
B152 St. Ann's Road (@Suffolk Road)	Eastbound	6,247	5,921	5,921	-326	-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 8: Motorised Traffic Volumes on Boundary Roads, Direction B (Normalised)

It is noted that Avenue Road (southbound), Alfoxton Avenue (eastbound), Harringay Road (southbound), Colina Road (eastbound) have been removed due to movement restrictions and changes made between Nov 2021 and Nov 2023.

	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 (Nov-23) vs. Pre LTN (Nov-21)	% Difference Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)
A503 Seven Sisters Rd (@Gourley Street)	Westbound	12,150	13,761	12,878	728	6%
A504 West Green Road (@Bedford Road/Lawrence Road)	Westbound	4,075	3,674	4,003	-72	-2%
A504 West Green Road (@Carlingford Road)	Westbound	7,037	9,373	10,096	3,059	**43%**
A504 West Green Road (@Etherley Road)	Westbound	5,666	7,977	6,720	1,054	**19%**
A504 West Green Road (@Suffield Road)	Westbound	4,191	6,052	3,509	-682	**-16%**
Alfoxton Avenue	Westbound	8,468	11,367	10,284	1,816	**21%**
B152 Colina Road	Westbound	2,092	3,859	3,362	1,270	**61%**
B152 St. Ann's Road (@Chestnuts Park)	Westbound	6,888	6,623	6,378	-510	-7%
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	Westbound	6,075	5,732	6,118	43	1%
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	Westbound	5,922	6,329	5,941	19	0%

B152 St. Ann's Road (@Salisbury Road)	Westbound	5,913	6,946	6,287	374	6%
B152 St. Ann's Road (@Suffolk Road)	Westbound	8,315	5,306	6,686	-1,629	**-20%**

*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 St Ann's LTN area, with limited percentage increase on scheme boundary roads. 35,834 vehicles fewer vehicles were counted across internal roads, equating to an overall drop of 57% in such volumes, whilst the number of vehicles counted on boundary roads increased by 7,840 vehicles, from 152,961 to 160,801, resulting in an 5% increase from the 2021 pre-implementation counts.

On internal roads, 34 of the 48 monitored sites saw decreases in flows, 15 of which saw decreases in flows that exceeded 50% (in comparison to November 2021 flows). It is noted that the largest decreases in flows were seen on north-south links between West Green Road and St. Ann's Road with new modal filters introduced on them – namely, La Rose Lane, Cornwall Road, Woodlands Park Road and Avenue Road. Woodlands Park Road (#16/Clarendon Road) observed 3,635 fewer motorised vehicles, Woodlands Park Road (#87/Avondale Road) saw 2,410 fewer motorised vehicles. In both instances, these changes equate to a roughly 84% decrease in motorised vehicle flows. Cornwall Road (#47/West Green Road) observed a reduction of 3,279 motorised vehicles (-82%) and La Rose Lane (@Chestnuts Park) saw a decrease of 7,676 motorised vehicles (-81%). Further substantial decreases of around 3,000 motorised vehicles were seen on Avenue Road. Conversely, traffic increased on 14 internal roads between November 2021 and November 2023, with Westerfield Road displaying an increase of daily 717 vehicles.

For boundary roads, there has been an increase of around 7,840 vehicles, resulting in an 5% increase from the 2021 pre-implementation counts. The most significant increase by volume was at the West Green Road site near Carlingford Road where vehicles increased by 5,023 vehicles per day, a 34% increase. At the Etherley Road on West Green Road, flows also increased by 2,917, equating to a 24% increase. Other percentage increases of over 10% were observed on Alfoxton Avenue, B152 Harringay Road and B152 Colina Road. Conversely, significant flow reductions were observed on B152 St. Ann's Road (@Hermitage Road/Cornwall Road)   (-2,843 motorised vehicles, -17%), A504 West Green Road (@Suffield Road) (-1,786 motorised vehicles, -16%) and B152 St. Ann's Road (@Suffolk Road) (-1,665 motorised vehicles, -11%). Trends on boundary roads generally indicate that there is an increase in traffic at the western end of West Green Road, with the Bruce Grove West Green scheme directly to the north and St. Ann's scheme directly to the south.

The St Ann's trial scheme is delivering on its objective as there has been a considerable net decrease in motorised vehicle volumes across the scheme area between November 2021 (Pre LTN) and November 2023 (Post LTN-Now). The total volume of traffic on internal roads has decreased considerably since the introduction of the St Ann's LTN trial, while several boundary roads have seen increases over the same time period.

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, changes in the proportion of LGV/HGV compared to total motorised traffic (or "prevalence" of such vehicles) is presented as a percentage point difference.

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 St Ann's scheme.

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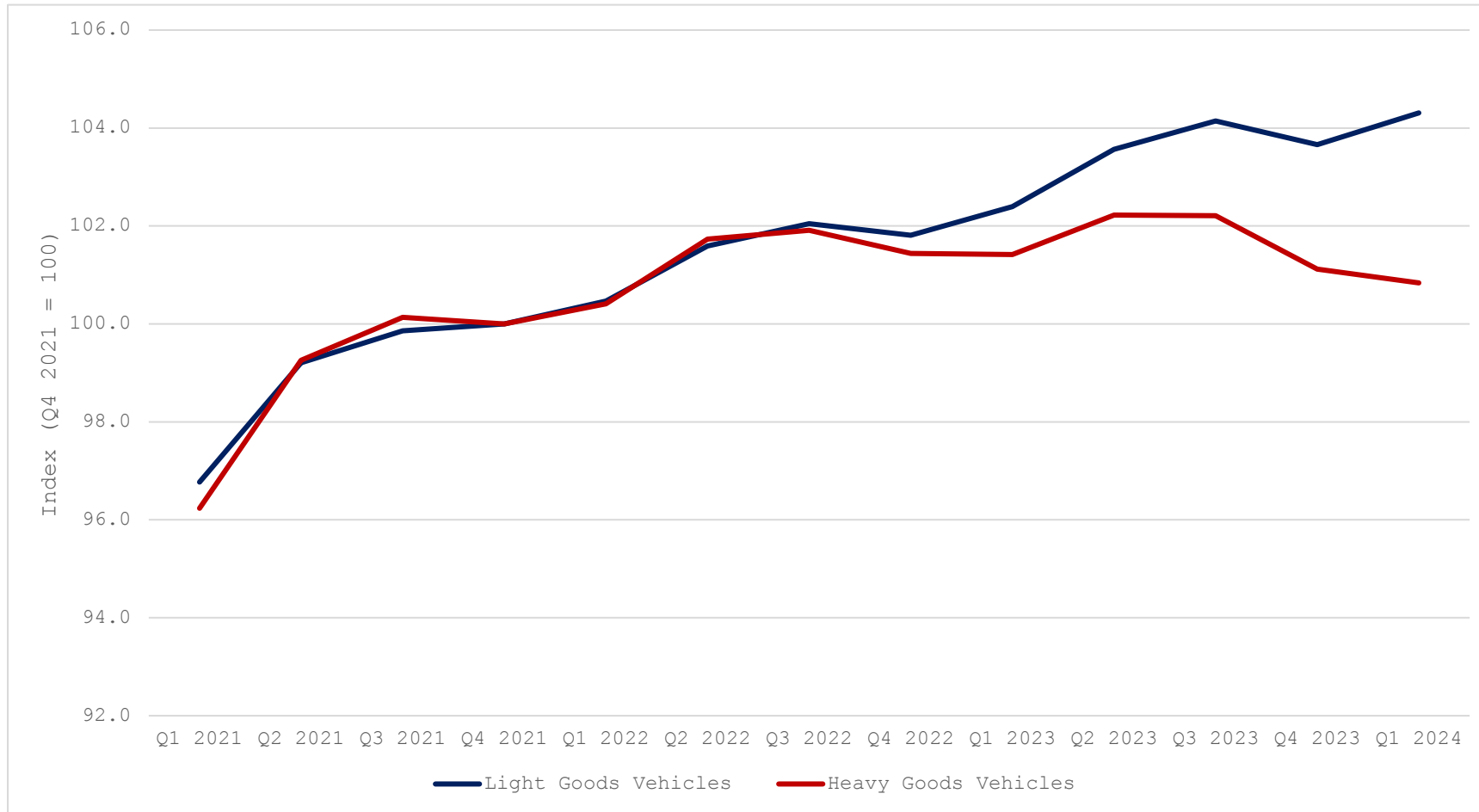
Table 9: Heavy Goods Vehicle Volumes on Internal Roads (Normalised)

	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)
Abbotsford Avenue	18	5%	19	7%	1	0%	-17	-5%
Alexandra Road (@North Grove)	0	0%	11	5%	1	0%	1	0%
Ascot Road	1	0%	5	1%	6	1%	5	1%
Avenue Road (#41/Newsam Avenue)	25	1%	72	6%	10	1%	-15	0%
Avenue Road (#95/Ida Road)	193	4%	49	3%	10	1%	-183	-3%
Avondale Road	4	1%	3	1%	2	1%	-2	0%
Brampton Road	7	2%	3	1%	9	4%	2	2%
Breamar Road	9	3%	4	2%	1	0%	-8	-3%
Cissbury Road	12	2%	14	3%	23	4%	11	2%
Clarence Road	12	2%	6	1%	38	5%	26	3%
Clarendon Road	3	1%	1	1%	5	3%	2	2%
Clinton Road	4	1%	9	2%	29	8%	25	7%
Colina Mews	1	1%	6	4%	1	1%	0	0%
Conway Road (@Avondale Road/Woodlands Park Road)	4	1%	5	3%	3	2%	-1	1%
Conway Road (@Rowley Road/Ritches Road)	2	1%	0	0%	2	1%	0	0%
Cornwall Road (#47/West Green Road)	97	2%	7	1%	28	4%	-69	2%
Cornwall Road (@Penrith Road)	88	2%	23	2%	27	2%	-61	0%
Cranleigh Road	59	6%	24	6%	8	4%	-51	-2%
Culvert Road	17	2%	4	1%	20	4%	3	2%
Dagmar Road	6	2%	7	2%	11	3%	5	1%
Elmar Road	2	1%	6	2%	0	0%	-2	-1%
Etherley Road	32	3%	26	4%	16	5%	-16	2%
Falmer Road	3	1%	2	1%	1	0%	-2	-1%
Glenwood Road	24	4%	3	0%	7	1%	-17	-3%
Gorleston Road	8	1%	5	1%	44	5%	36	4%
Greenfield Road	31	7%	7	2%	29	8%	-2	1%
Harringay Road (#67)	3	0%	2	1%	3	1%	0	1%
Harringay Road (#68)	26	6%	1	0%	5	2%	-21	-4%
Ida Road	1	1%	2	1%	1	1%	0	0%
La Rose Lane (#31)	62	1%	321	12%	129	5%	67	4%
La Rose Lane (@Chestnuts Park)	189	2%	28	2%	195	11%	6	9%
North Grove	3	1%	3	1%	8	3%	5	2%
Oulton Road	13	6%	7	6%	3	2%	-10	-4%
Park Road	31	4%	15	4%	3	1%	-28	-3%
Penrith Road	3	2%	3	2%	4	2%	1	0%
Ritches Road	13	5%	2	1%	1	0%	-12	-5%
Roslyn Road	5	1%	17	5%	4	1%	-1	0%
Rowley Road	2	1%	3	1%	3	1%	1	1%

Seaford Road	2	0%	23	5%	3	1%	1	0%
South Grove	2	0%	2	0%	4	1%	2	-3%
St Margaret's Avenue	1	0%	12	4%	1	0%	0	0%
Stanley Road	4	1%	13	4%	4	1%	0	2%
Station Crescent	3	1%	2	1%	2	1%	-1	-3%
Suffield Road	159	6%	17	1%	40	1%	-119	2%
Terront Road	6	1%	11	2%	2	0%	-4	3%
Westerfield Road	4	0%	19	1%	10	0%	6	2%
Woodlands Park Road (#16/Clarendon Road)	154	3%	28	4%	6	1%	-148	7%
Woodlands Park Road (#87/Avondale Road)	16	1%	5	1%	13	3%	-3	0%
Total/Average Internal Road*	**1,364**	**2%**	**857**	**3%**	**776**	**3%**	**-588**	**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)
Abbotsford Avenue	12	3%	3	1%	30	12%	18	9%
Alexandra Road (@North Grove)	3	2%	8	4%	3	1%	0	-1%
Ascot Road	7	2%	24	5%	128	26%	121	**24%**
Avenue Road (#41/Newsam Avenue)	239	6%	148	11%	118	13%	-121	7%
Avenue Road (#95/Ida Road)	149	3%	124	7%	136	8%	-13	5%
Avondale Road	49	13%	42	14%	37	13%	-12	0%
Brampton Road	14	4%	11	5%	20	8%	6	4%
Breamar Road	21	7%	32	15%	25	12%	4	5%
Cissbury Road	64	8%	55	10%	53	10%	-11	2%
Clarence Road	36	6%	101	13%	18	2%	-18	-4%
Clarendon Road	91	16%	15	9%	7	4%	-84	**-12%**
Clinton Road	35	9%	14	4%	14	4%	-21	-5%
Colina Mews	12	12%	5	3%	44	23%	32	**11%**
Conway Road (@Avondale Road/Woodlands Park Road)	55	13%	24	13%	44	24%	-11	**11%**
Conway Road (@Rowley Road/Ritches Road)	16	6%	13	5%	22	11%	6	5%
Cornwall Road (#47/West Green Road)	177	4%	104	17%	93	12%	-84	8%
Cornwall Road (@Penrith Road)	199	5%	114	10%	268	25%	69	**20%**
Cranleigh Road	40	4%	13	3%	8	4%	-32	0%
Culvert Road	84	9%	41	10%	37	8%	-47	-1%
Dagmar Road	11	4%	15	4%	87	26%	76	**22%**
Elmar Road	17	5%	7	2%	5	2%	-12	-3%
Etherley Road	48	4%	24	4%	31	9%	-17	5%

Falmer Road	22	5%	26	7%	52	19%	30	**14%**
Glenwood Road	54	9%	73	10%	59	9%	5	0%
Gorleston Road	89	7%	88	12%	151	17%	62	**10%**
Greenfield Road	8	2%	28	7%	22	6%	14	4%
Harringay Road (#67)	103	11%	32	14%	27	13%	-76	2%
Harringay Road (#68)	10	2%	29	10%	37	12%	27	**10%**
Ida Road	10	9%	20	12%	18	12%	8	3%
La Rose Lane (#31)	662	7%	92	3%	131	5%	-531	-2%
La Rose Lane (@Chestnuts Park)	498	5%	359	24%	168	9%	-330	4%
North Grove	13	4%	15	5%	20	7%	7	3%
Oulton Road	3	1%	2	2%	27	17%	24	**16%**
Park Road	16	2%	11	3%	53	16%	37	**14%**
Penrith Road	15	8%	14	8%	27	12%	12	4%
Ritches Road	13	5%	26	10%	41	15%	28	**10%**
Roslyn Road	60	12%	19	5%	43	12%	-17	0%
Rowley Road	21	7%	29	10%	37	11%	16	4%
Seaford Road	59	12%	24	5%	63	14%	4	2%
South Grove	45	10%	26	6%	36	10%	-9	0%
St Margaret's Avenue	25	11%	12	4%	34	12%	9	1%
Stanley Road	49	12%	29	9%	32	10%	-17	-2%
Station Crescent	17	7%	30	13%	53	24%	36	**17%**
Suffield Road	75	3%	302	12%	237	8%	162	5%
Terront Road	29	6%	75	11%	69	12%	40	6%
Westerfield Road	190	12%	245	9%	356	15%	166	3%
Woodlands Park Road (#16/Clarendon Road)	119	3%	44	6%	120	17%	1	**14%**
Woodlands Park Road (#87/Avondale Road)	112	4%	40	8%	40	8%	-72	4%
Total/Average Internal Road*	**3696**	**6%**	**2627**	**9%**	**3,181**	**12%**	**-515**	**6%**

*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)
A503 Seven Sisters Rd (@Gourley Street)	502	2%	475	2%	1982	8%	1,480	6%
A504 West Green Road (@Bedford Road/Lawrence Road)	425	4%	123	1%	409	4%	-16	0%
A504 West Green Road (@Carlingford Road)	511	3%	773	4%	1134	6%	623	3%
A504 West Green Road (@Etherley Road)	810	7%	635	4%	317	2%	-493	-5%
A504 West Green Road (@Suffield Road)	439	4%	165	2%	376	4%	-63	0%
Alfoxton Avenue	132	2%	171	1%	269	3%	137	1%

B152 Harringay Road	14	0%	177	4%	165	4%	151	1%
B152 Colina Road	61	3%	37	1%	40	1%	-21	1%
B152 St. Ann's Road (@Chestnuts Park)	211	1%	473	3%	284	2%	73	1%
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	319	2%	100	1%	938	7%	619	5%
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	129	1%	271	2%	129	1%	0	0%
B152 St. Ann's Road (@Salisbury Road)	290	2%	605	4%	136	1%	-154	-1%
B152 St. Ann's Road (@Suffolk Road)	480	3%	1,293	11%	450	3%	-30	0%
Total/Average Boundary Road*	**4,323**	**3%**	**5,298**	**3%**	**6629**	**4%**	**2,306**	**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)
A503 Seven Sisters Rd (@Gourley Street)	2,024	9%	2,104	8%	4	0%	-2,020	-9%
A504 West Green Road (@Bedford Road/Lawrence Road)	575	6%	1,114	12%	475	5%	-100	-1%
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%	1989	13%	1,564	**10%**
A504 West Green Road (@Suffield Road)	164	1%	761	8%	398	4%	234	3%
Alfoxton Avenue	1,372	16%	1,024	9%	1239	12%	-133	-4%
B152 Harringay Road	200	6%	730	17%	64	1%	-136	3%
B152 Colina Road	78	4%	342	9%	308	9%	230	-3%
B152 St. Ann's Road (@Chestnuts Park)	818	6%	546	4%	1843	13%	1,025	7%
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	1,003	6%	1,354	10%	1549	11%	546	5%
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	940	7%	956	7%	1708	13%	768	6%
B152 St. Ann's Road (@Salisbury Road)	552	4%	648	5%	1409	10%	857	6%
B152 St. Ann's Road (@Suffolk Road)	921	6%	953	8%	1109	8%	188	2%
Total/Average Boundary Road*	**10,137**	**7%**	**12,211**	**8%**	**12463**	**8%**	**2,326**	**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 noted, however, that in recent years there has been a significant increase in the number of deliveries using LGV's resulting from the increase in online shopping. On internal roads, the volumes of both LGVs and HGVs have decreased by -14% and -43% respectively. However, on internal roads, the proportion of LGVs compared to total motorised vehicles has increased by 6 percentage points, and by 1 percentage point for HGVs. For LGVs, this indicates that routing choices may be less flexible than for general traffic, most likely because a higher percentage of LGVs need to drop off or pick up at specific households within the LTN area, whereas general traffic may be able to alter and amend their routes.

For individual internal roads, as changes in vehicle flows often translate to large percentage changes (based on low initial volumes), it is generally more useful to look at changes in actual vehicle numbers. Internal roads saw an overall reduction of 515 LGVs (-14%[1]). Seven internal roads saw decreases exceeding 50 fewer LGVs, with La Rose Lane and Avenue Road experiencing the largest reductions as there were 531 fewer LGVs at La Rose Lane (#31), 330 fewer LGVs at La Rose Lane (@Chestnuts Park) and 121 fewer LGVs at Avenue Road (#41/Newsam Avenue). Conversely, six internal roads sites saw increases that exceeded 50 additional LGVs. Ascot Road (+121 LGVs), Suffield Road (+ 162 LGVs) and Westerfield Road (+166) observed the highest increase.

HGVs comprised a smaller starting proportion of all motorised traffic within the scheme area. A decrease of 588 HGVs was recorded. Fourteen internal sites displayed reductions exceeding ten daily HGVs, five internal sites showed increased exceeding ten daily HGVs. The most significant decreases were observed on Avenue Road (#95/Ida Road), Woodlands Park Road (#16/Clarendon Road) and Suffield Road, with 183, 148 and 119 fewer HGVs between November 2021 (Pre LTN) and November 2023 (Post LTN-Now). The highest increase was of 67 HGVs, recorded on La Rose Lane (#31).

On boundary roads, 2,326 additional LGVs and 2,306 additional HGVs were recorded in November 2023 (Post LTN-Now) than in November 2021 (Pre LTN), equating to a 23% increase in LGVs and 53% increase in HGVs, or an increase in 1 percentage point for each vehicle type. A503 Seven Sisters Rd (@Gourley Street) saw the most significant reduction in LGVs, with 2,020 fewer LGVs. This was followed by A504 West Green Road (@Carlingford Road) which recorded 697 fewer LGVs. Conversely, B152 St. Ann's Road (@Chestnuts Park) and A504 West Green Road (@Etherley Road) recorded 1,025 and 1,564 additional LGVs respectively.

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

A504 West Green Road (@Etherley Road) and B152 St. Ann's Road (@Salisbury Road) recorded the highest reductions in HGV volumes, with 493 and 154 fewer HGVs respectively. On the other hand, B152 St. Ann's Road (@Hermitage Road/Cornwall Road), A504 West Green Road (@Carlingford Road) and A503 Seven Sisters Rd (@Gourley Street) observed 619, 623 and 1,480 additional HGVs respectively. A503 Seven Sisters Rd (@Gourley Street) in particular drove this overall increase in HGV levels on boundary roads.

St Ann's saw an overall reduction in HGVs and LGVs on its internal roads, while boundary roads observed increased in goods vehicle volumes. The findings indicate that the Bounds Green LTN trial scheme is delivering on its objectives, and observed increases in goods vehicles appear to be in line with national trends. Internal roads have experienced significant reductions in LGV and HGVs levels, whilst the increase in LGVs on boundary roads may be more indicative of wider trends in relation to shopping habits as referred to earlier.

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: Normalised Motorcycle Volumes on Internal Roads

	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 (Nov-23) vs. Pre LTN (Nov-21)	Change in Proportion Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21)
Abbotsford Avenue	38	11%	43	17%	50	19%	32%	8%
Alexandra Road (@North Grove)	8	6%	25	12%	31	14%	318%	8%
Ascot Road	6	2%	40	9%	71	15%	1097%	13%
Avenue Road (#41/Newsam Avenue)	206	5%	234	19%	119	15%	-42%	9%
Avenue Road (#95/Ida Road)	58	1%	185	11%	236	14%	305%	13%
Avondale Road	12	3%	29	10%	31	10%	162%	7%
Brampton Road	42	13%	32	15%	62	24%	47%	11%
Breamar Road	27	9%	36	16%	25	12%	-4%	3%
Cissbury Road	49	7%	48	9%	36	7%	-27%	0%
Clarence Road	64	10%	72	9%	51	6%	-21%	-4%
Clarendon Road	51	9%	23	12%	16	9%	-69%	0%
Clinton Road	39	10%	52	14%	55	15%	41%	5%
Colina Mews	4	5%	22	14%	23	13%	478%	8%
Conway Road (@Avondale Road/Woodlands Park Road)	10	2%	25	14%	10	6%	4%	3%
Conway Road (@Rowley Road/Ritches Road)	13	5%	13	5%	16	8%	27%	3%
Cornwall Road (#47/West Green Road)	149	4%	47	8%	123	17%	-17%	13%
Cornwall Road (@Penrith Road)	207	5%	114	11%	205	20%	-1%	14%
Cranleigh Road	82	9%	28	7%	26	13%	-69%	4%
Culvert Road	52	6%	41	10%	48	11%	-9%	5%
Dagmar Road	19	6%	30	8%	20	6%	7%	0%
Elmar Road	29	9%	20	7%	26	9%	-13%	0%

Etherley Road	60	5%	57	10%	44	13%	**-27%**	8%
Falmer Road	33	7%	37	10%	47	17%	**45%**	**10%**
Glenwood Road	69	11%	99	14%	85	13%	**23%**	1%
Gorleston Road	102	8%	85	13%	179	22%	**75%**	**14%**
Greenfield Road	71	16%	51	12%	64	16%	**-10%**	0%
Harringay Road (#67)	108	12%	43	19%	44	22%	**-60%**	10%
Harringay Road (#68)	42	11%	56	20%	59	19%	**40%**	7%
Ida Road	7	7%	38	24%	34	25%	**379%**	**18%**
La Rose Lane (#31)	345	4%	193	7%	217	9%	**-37%**	5%
La Rose Lane (@Chestnuts Park)	293	3%	126	9%	208	12%	**-29%**	9%
North Grove	40	13%	65	22%	79	29%	**96%**	**16%**
Oulton Road	26	12%	12	10%	30	20%	**16%**	8%
Park Road	70	8%	73	23%	59	18%	**-16%**	**10%**
Penrith Road	9	5%	17	10%	22	10%	**146%**	6%
Ritches Road	23	9%	20	8%	54	20%	**134%**	**11%**
Roslyn Road	34	7%	32	9%	26	8%	**-25%**	1%
Rowley Road	20	7%	20	7%	42	13%	**107%**	5%
Seaford Road	33	7%	39	8%	41	9%	**26%**	2%
South Grove	41	10%	40	10%	36	11%	**-12%**	1%
St Margaret's Avenue	10	4%	20	7%	25	9%	**149%**	4%
Stanley Road	19	5%	49	15%	53	18%	**185%**	**13%**
Station Crescent	12	5%	15	6%	31	14%	**151%**	9%
Suffield Road	229	9%	281	11%	314	11%	**37%**	2%
Terront Road	18	4%	57	9%	58	10%	**220%**	6%
Westerfield Road	116	7%	178	7%	174	7%	**50%**	0%
Woodlands Park Road (#16/Clarendon Road)	248	6%	154	22%	216	32%	**-13%**	**26%**
Woodlands Park Road (#87/Avondale Road)	240	8%	102	21%	110	23%	**-54%**	**14%**
Total/Average Internal*	**3483**	**5%**	**3121**	**11%**	**3,628**	**13%**	**4%**	**8%**

*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: Normalised Motorcycle Volumes on Boundary Roads

	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)
A503 Seven Sisters Rd (@Gourley Street)	1,286	6%	1,617	6%	1,352	6%	5%	0%
A504 West Green Road (@Bedford Road/Lawrence Road)	614	6%	605	7%	603	7%	-2%	1%
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%
A504 West Green Road (@Suffield Road)	490	5%	532	6%	554	6%	13%	1%
Alfoxton Avenue	501	6%	666	6%	584	6%	16%	0%
B152 Harringay Road	113	5%	239	6%	233	4%	78%	2%
B152 Colina Road	140	5%	255	6%	202	7%	67%	-1%
B152 St. Ann's Road (@Chestnuts Park)	253	2%	707	5%	655	5%	159%	3%
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	694	4%	716	6%	817	6%	18%	2%
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	590	5%	612	5%	751	6%	0	1%
B152 St. Ann's Road (@Salisbury Road)	305	3%	568	4%	587	5%	93%	2%
B152 St. Ann's Road (@Suffolk Road)	629	4%	587	5%	647	5%	3%	1%
Total/Average Boundary Road*	**7,172**	**5%**	**8,956**	**6%**	**8,880**	**6%**	**24%**	**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: 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. However, findings indicate that internal roads have observed a 4% increase and boundary roads have experienced a 24% increase in motorcycle flows since the implementation of the LTN scheme.

Internal roads observed an increase of 146 motorcycles between November 2021 and November 2023. Five internal sites observed an increase in motorcycle flows that exceeded 50 motorcycles, but this increase was largely driven by Avenue Road (#95/Ida Road) which observed 178 additional motorcycles. Conversely, Woodlands Park Road (#87/Avondale Road) and La Rose Lane (#31) saw a reduction of 129 and 128 motorcycles respectively. These findings indicate that motorcycles do not reflect the broader trend on internal roads, where traffic has decreased.

Boundary roads saw an increase of 1,708 motorcycles. Only A504 West Green Road (@Bedford Road/Lawrence Road) observed a decrease in motorcycle flows, and this was a reduction of 11 motorcycles. Conversely, the following sites observed increases ranging between 120 and 402 motorcycles: B152 Harringay Road, B152 St. Ann's Road (@Hermitage Road/Cornwall Road), B152 St. Ann's Road (@Rowley Road/La Rose Lane), B152 St. Ann's Road (@Salisbury Road), A504 West Green Road (@Etherley Road), B152 St. Ann's Road (@Chestnuts Park).

Ultimately, it appears that motorcycle volumes are not following the general trend of motorised vehicles (decrease for internal roads and increase for boundary roads): not only do they show a higher degree of prevalence in both cases, but volumes have also increased on internal roads. This may suggest a level of non-compliance. There may be a need for further monitoring so the LTN scheme can deliver satisfactory results.

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**
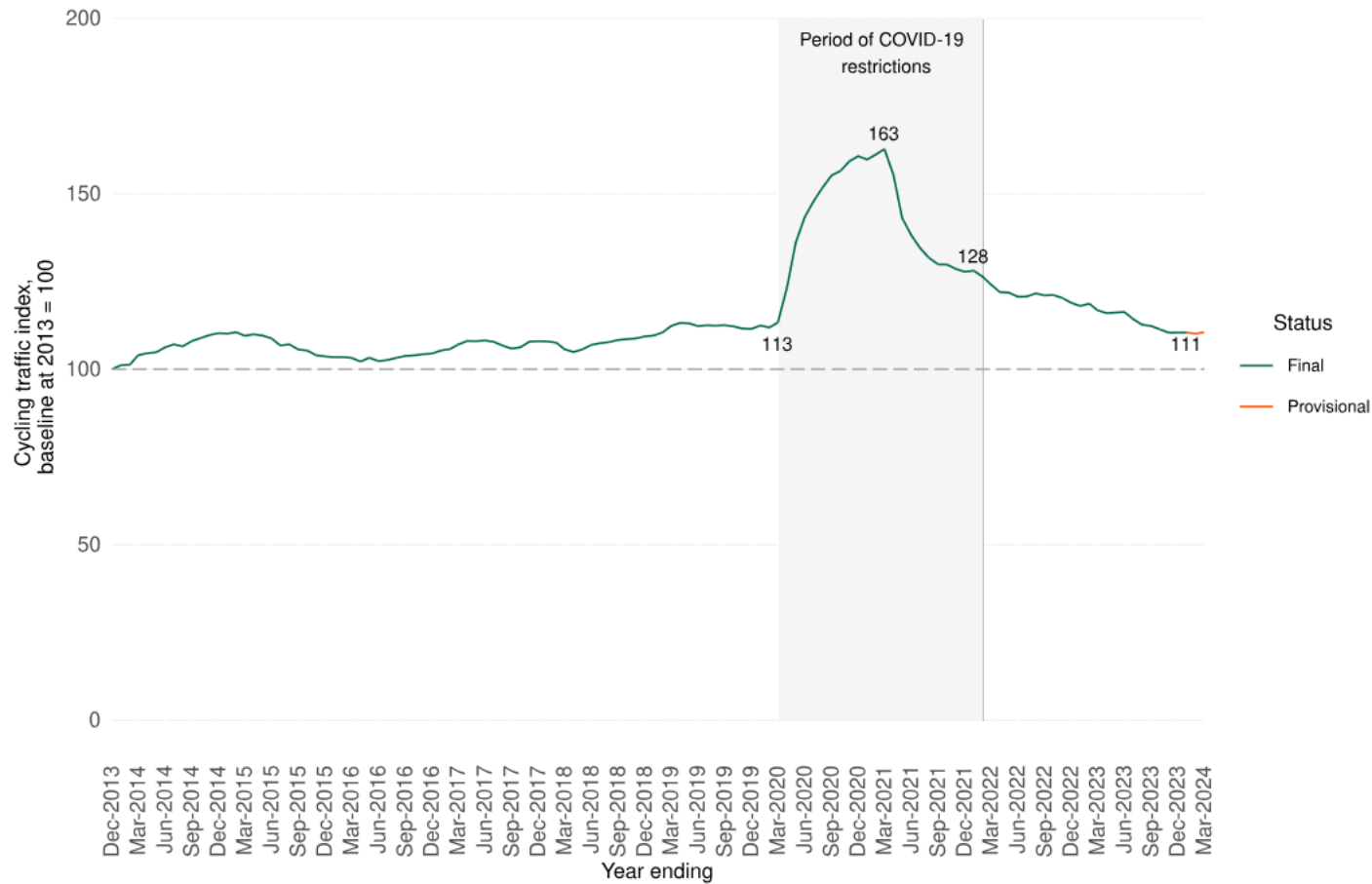
*Given that all monitoring for this report has taken place post-COVID, it would be expected that (given the national benchmark) that cycling levels in Haringey would also decrease over time.

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 Bounds Green
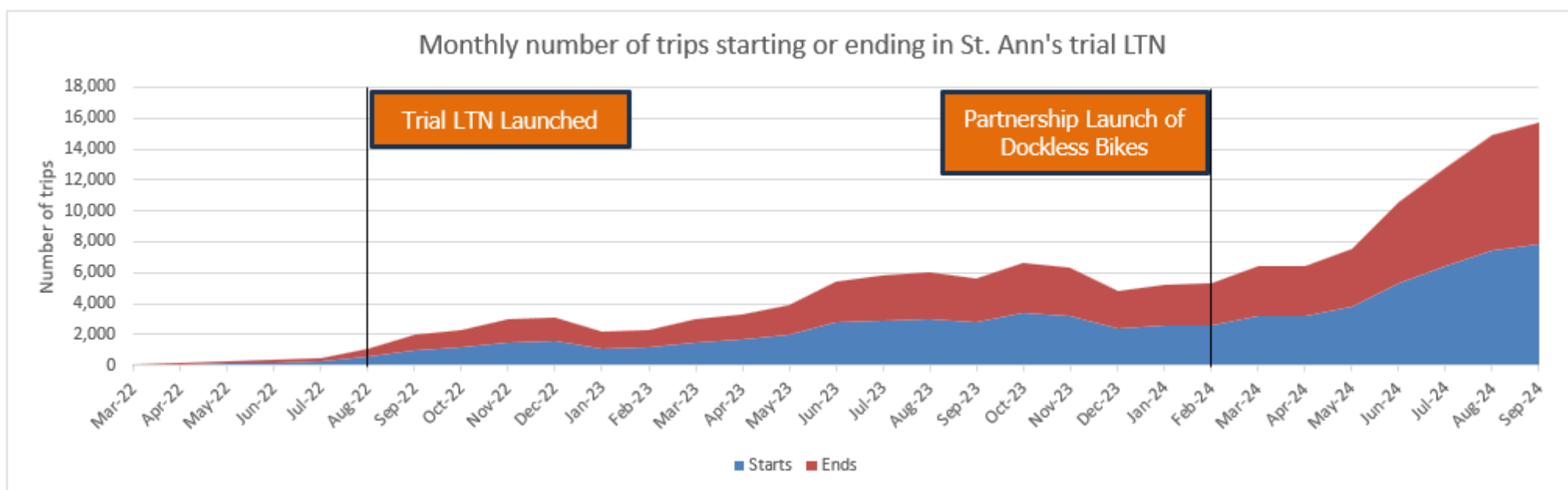
The data indicates a significant increase in the use of dockless bikes starting and ending within the LTN, which aligns with the launch of the dockless bike trial in the borough.

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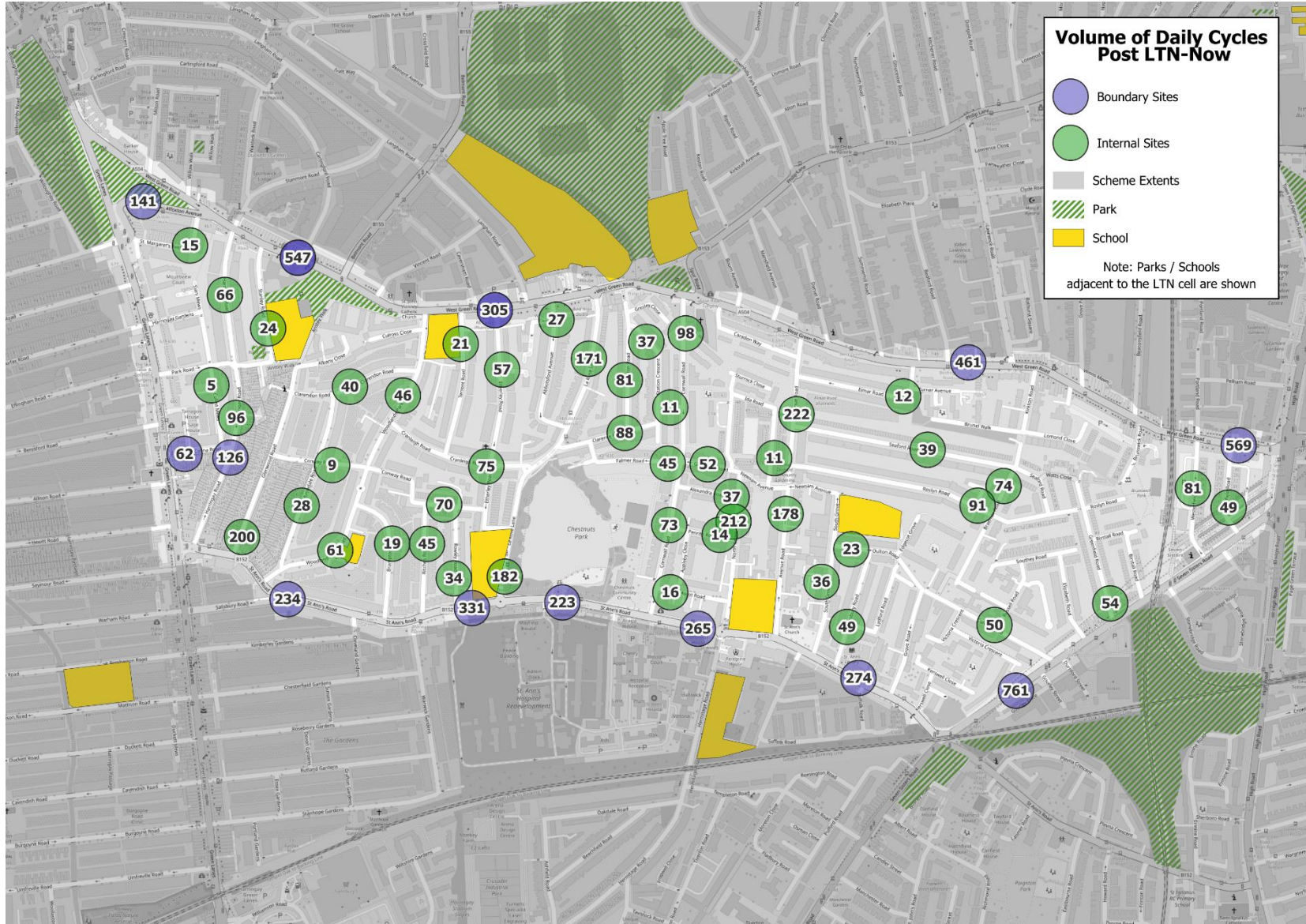
Map 8: Pre LTN (Nov-21) Volume of Cycles (Observed)

Volume of Daily Cycles Pre LTN

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

Note: Parks / Schools adjacent to the LTN cell are shown
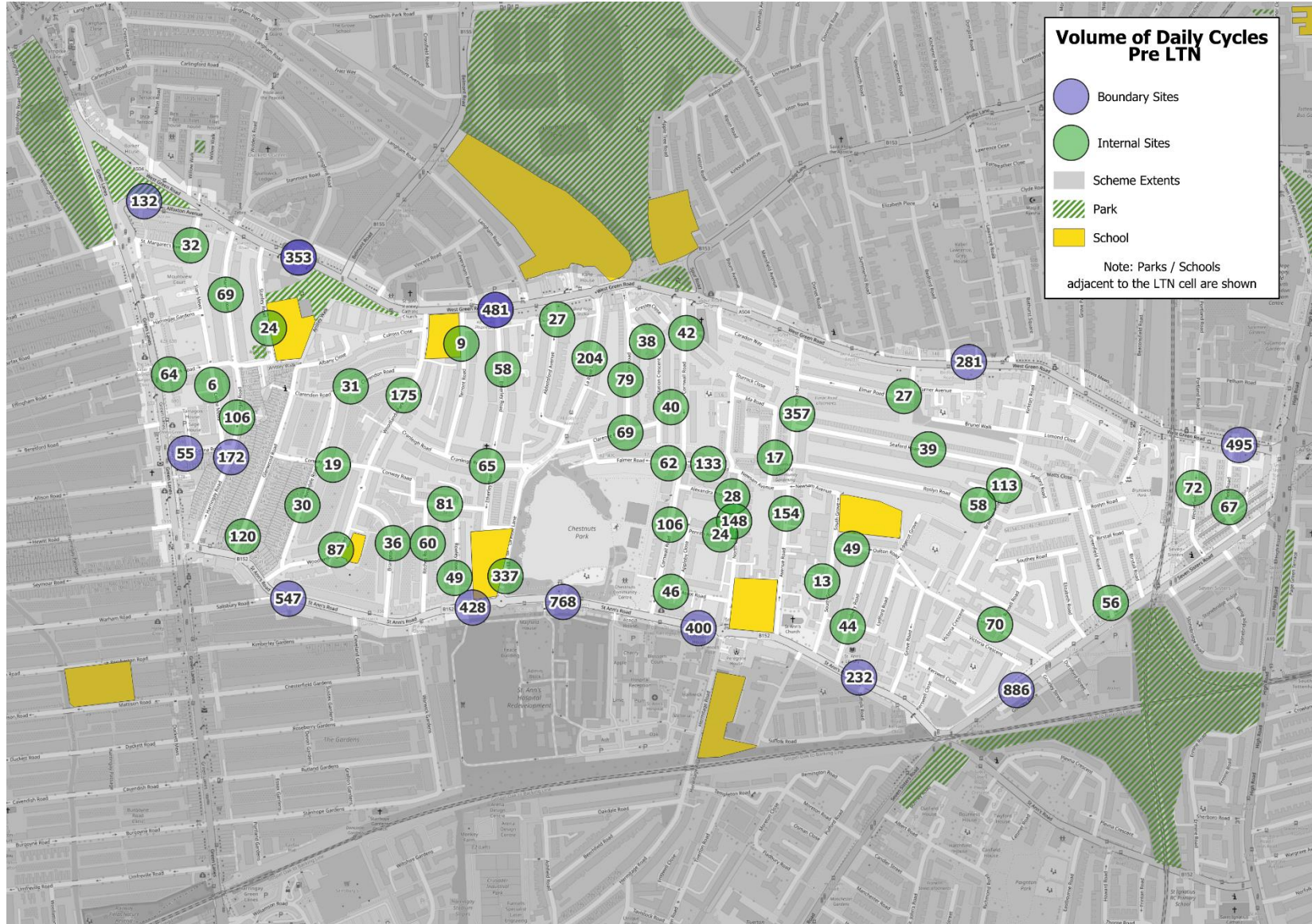
Map 9: Post LTN-Interim (Jan-23) Volume of Cycles (Observed)

50
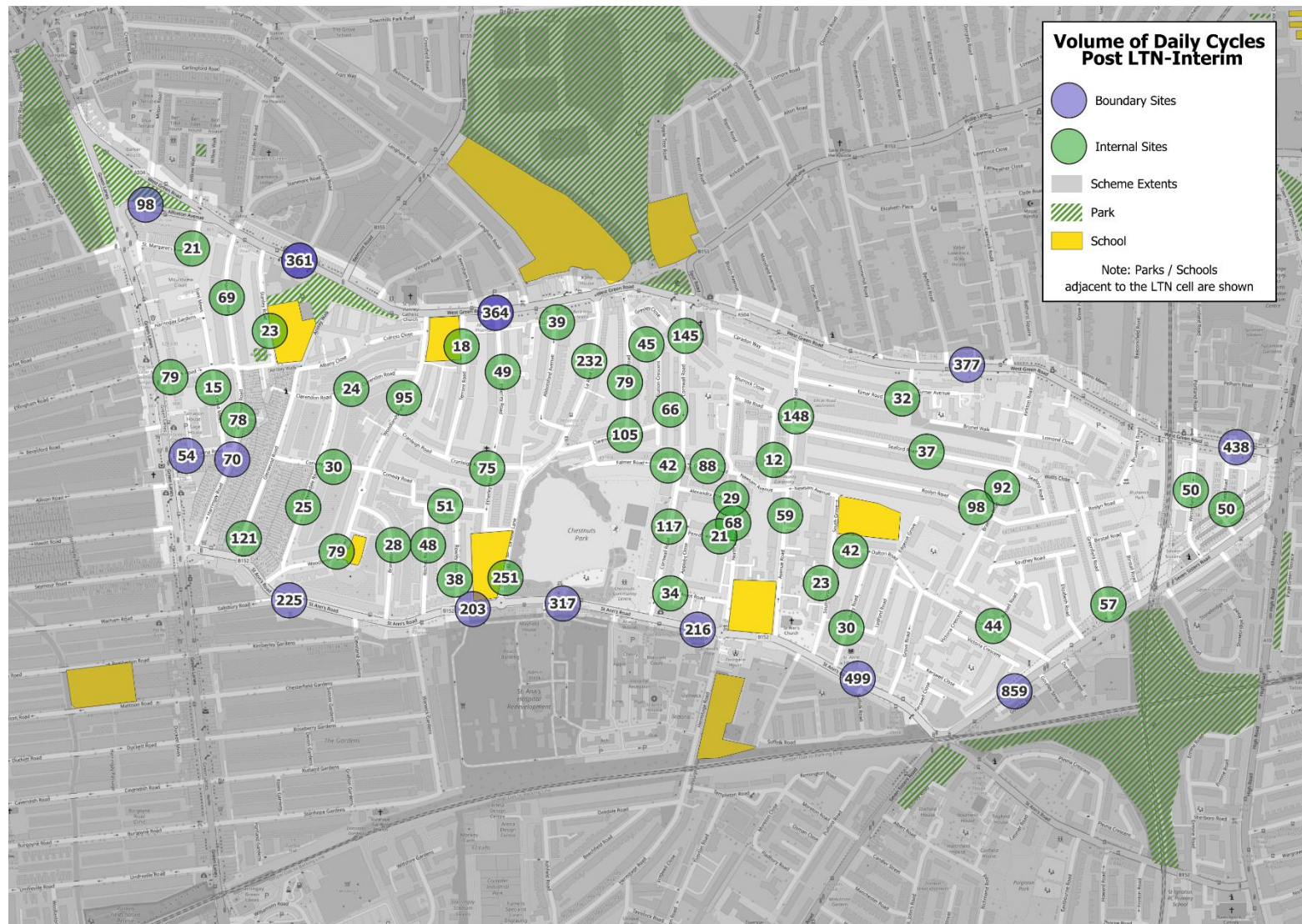
Map 10: Post LTN-Now (Nov-23) Implementation Volume of Cycles (Observed)

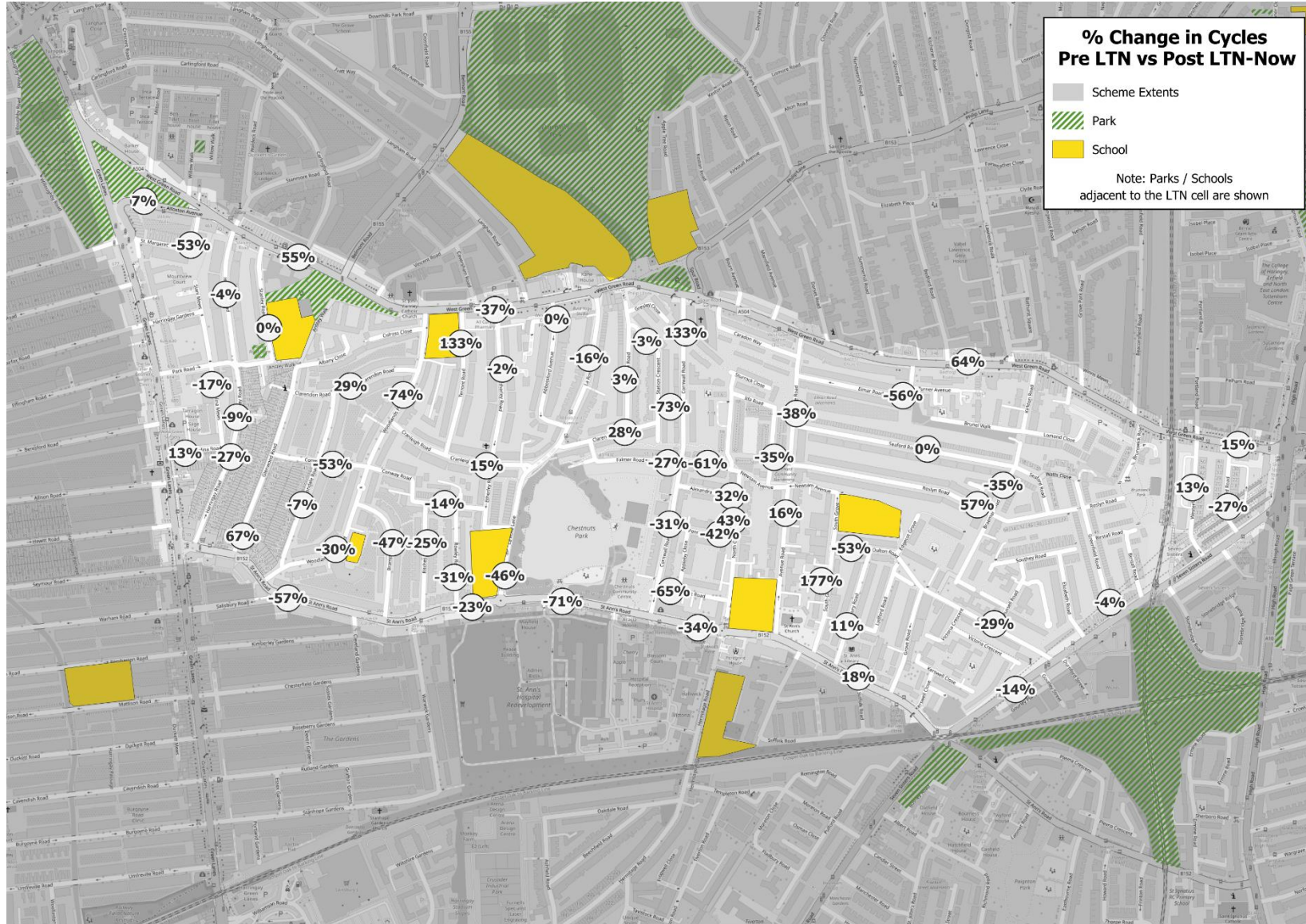# Map 11: Percentage Change in Cycle Volumes: Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (Observed)

**% 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

	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) (%)
Abbotsford Avenue	27	39	27	0	1%
Alexandra Road (@North Grove)	28	29	37	10	35%
Ascot Road	46	34	16	-30	-65%
Avenue Road (#41/Newsam Avenue)	154	59	178	24	16%
Avenue Road (#95/Ida Road)	357	148	222	-135	-38%
Avondale Road	30	25	28	-2	-7%
Brampton Road	36	28	19	-17	-48%
Breamar Road	113	92	74	-39	-35%
Cissbury Road	44	30	49	5	12%
Clarence Road	69	105	88	19	27%
Clarendon Road	31	24	40	10	32%
Clinton Road	79	79	81	2	3%
Colina Mews	6	15	5	-1	-14%
Conway Road (@Avondale Road/Woodlands Park Road)	19	30	9	-10	-53%
Conway Road (@Rowley Road/Ritches Road)	81	51	70	-11	-14%
Cornwall Road (#47/West Green Road)	42	145	98	56	134%
Cornwall Road (@Penrith Road)	106	117	73	-33	-31%
Cranleigh Road	65	75	75	10	15%
Culvert Road	70	44	50	-20	-29%
Dagmar Road	40	66	11	-29	-73%
Elmar Road	27	32	12	-15	-56%
Etherley Road	58	49	57	-1	-2%
Falmer Road	62	42	45	-17	-28%
Glenwood Road	120	121	200	80	67%
Gorleston Road	133	88	52	-81	-61%
Greenfield Road	56	57	54	-3	-5%
Harringay Road (#67)	106	78	96	-10	-10%
Harringay Road (#68)	69	69	66	-3	-5%
Ida Road	17	12	11	-7	-38%
La Rose Lane (#31)	204	232	171	-34	-17%
La Rose Lane (@Chestnuts Park)	337	251	182	-154	-46%
North Grove	148	68	212	65	44%
Oulton Road	49	42	23	-26	-54%
Park Road	64	79	20	-45	-69%
Penrith Road	24	21	14	-10	-43%
Ritches Road	60	48	45	-15	-25%
Roslyn Road	58	98	91	33	57%
Rowley Road	49	38	34	-15	-31%
Seaford Road	39	37	39	0	1%
South Grove	13	23	36	23	175%

St Margaret's Avenue	32	21	15	-16	**-52%**
Stanley Road	24	23	24	-1	-2%
Station Crescent	38	45	37	-1	-3%
Suffield Road	67	50	49	-18	**-27%**
Terront Road	9	18	21	12	**132%**
Westerfield Road	72	50	81	9	**12%**
Woodlands Park Road (#16/Clarendon Road)	175	95	46	-129	**-74%**
Woodlands Park Road (#87/Avondale Road)	87	79	61	-26	**-30%**
Total/Average Internal*	**3,639**	**3,105**	**3,042**	**-597**	**-16%**

*As detailed on pages 19-20, it is important to note that cycles 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

	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) (%)
A503 Seven Sisters Rd (@Gourley Street)	886	859	761	-125	**-14%**
A504 West Green Road (@Bedford Road/Lawrence Road)	281	377	461	180	**64%**
A504 West Green Road (@Carlingford Road)	353	361	547	194	**55%**
A504 West Green Road (@Etherley Road)	481	364	305	-176	**-37%**
A504 West Green Road (@Suffield Road)	495	438	569	74	**15%**
Alfoxton Avenue	132	98	141	9	7%
B152 Harringay Road	55	54	62	7	**13%**
B152 Colina Road	172	70	126	-45	**-26%**
B152 St. Ann's Road (@Chestnuts Park)	768	317	223	-546	**-71%**
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	400	216	265	-135	**-34%**
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	428	203	331	-97	**-23%**
B152 St. Ann's Road (@Salisbury Road)	547	225	234	-312	**-57%**
B152 St. Ann's Road (@Suffolk Road)	232	499	274	42	**18%**
Total/Average Boundary Road*	**5,228**	**4,079**	**4,298**	**-930**	**-18%**

*As detailed on pages 19-20, it is important to note that cycles 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

Based on the data, it appears that cycling levels have decreased across both internal and boundary roads within the St. Ann's LTN scheme area between November 2021 (Pre LTN) and November 2023 (Post LTN-Now). However, it should be noted that there was considerably more rainfall in November 2023 than November 2021, which may have played a major role in these outcomes.

On internal roads, daily cycling volumes decreased by 16%, equating to 597 fewer cycles. The largest decrease was observed on La Rose Lane (@Chestnuts Park) which saw 154 fewer daily cycles (-46%). Large decreases were also seen on Avenue Road (#95/Ida Road), where there were 135 fewer cycles, and Woodlands Park Road (#16/Clarendon Road) which saw 129 fewer cycles. Conversely, the most notable increase was on Glenwood Road, where daily cycle volumes increased by 80 (67%). Cornwall Road (#47/West Green Road) and North Grove observed increases of over 50 cycles.

On boundary roads, daily cycling volumes decreased by 18%, equating to 930 fewer cycles. This change was largely driven by B152 St Ann's Road (@Chestnuts Park) and B152 St Ann's Road (@Salisbury Road) which saw decreases in 546 and 312 respectively. Conversely, A504 West Green Road (@Suffield Road), A504 West Green Road (@Bedford Road/Lawrence Road), and A504 West Green Road (@Carlingford Road) reported the most significant increases in cycling levels (74, 180 and 194 additional cycles).

While some sites on internal roads have seen an increase and others have observed a decrease in cycling levels since the implementation of the LTN scheme, overall findings show that there is an overall reduction in cycling levels across the scheme area. It is unclear if there is a specific reason cycling decreases were seen within the scheme area, although it is considered that these results are likely due to the much rainier weather in the month of the Post LTN-Now counts. It may also be due to new cycling routes opening along similar desire lines to those running through the LTN, attracting cyclists previously using roads in the scheme area. In any case, cycling levels should be further monitored to ensure that a satisfactory cycling environment is fostered within and on the boundaries of the LTN scheme area.

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 monitored roads.

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)

Map 13: Post LTN-Interim (Jan-23) average Vehicle Speed in mph (Observed)

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)
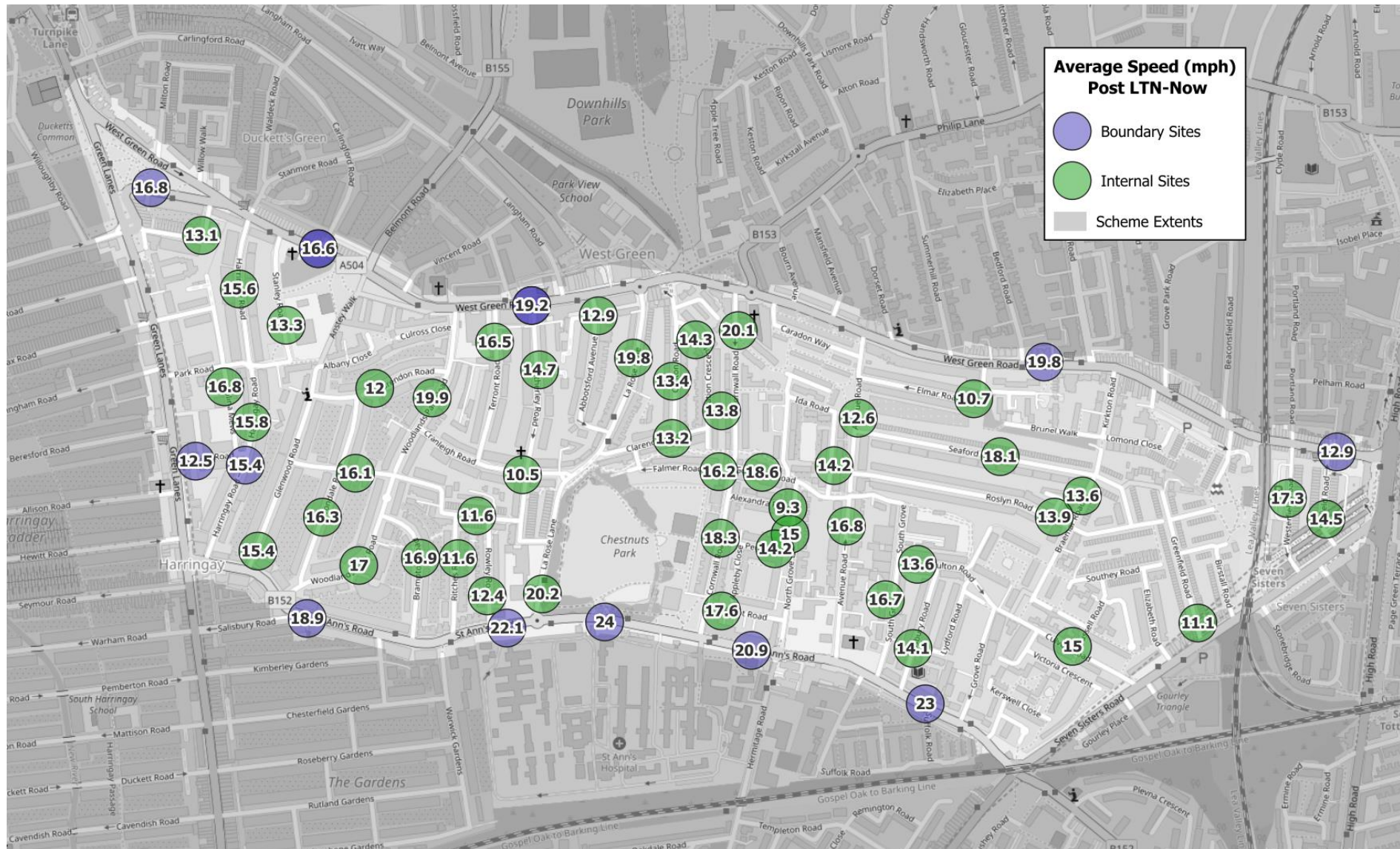
Map 15: % Change in Motorised Vehicle Average Speed: Post LTN-Now (Nov-23) vs. Pre LTN (Nov-21) (Observed)
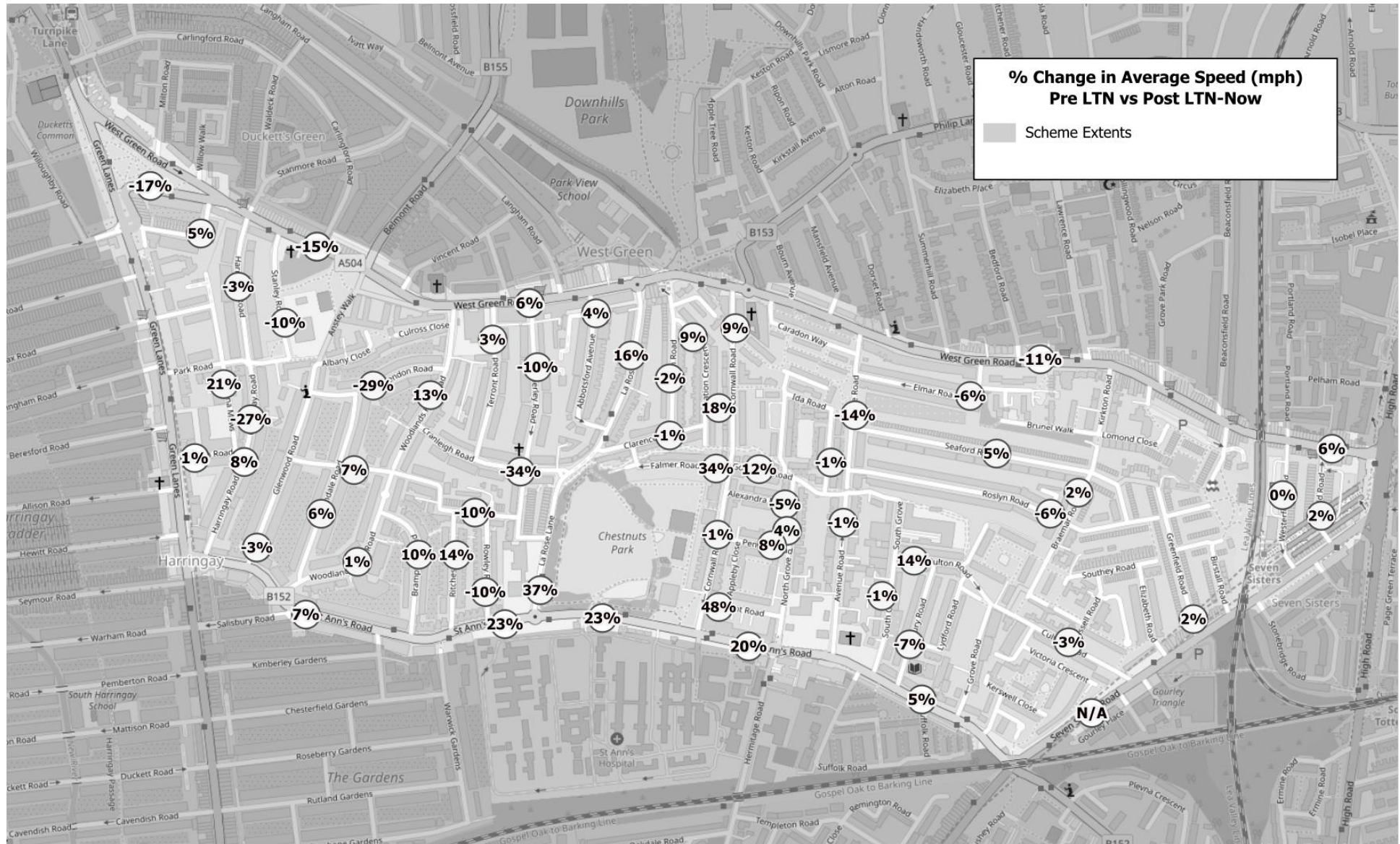
Table 17: Speeds of Motorised Vehicles on Internal Roads

c	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) (%)
Abbotsford Avenue	12.4	8.7	12.9	0.5	4%
Alexandra Road (@North Grove)	9.8	11.1	9.3	-0.5	-5%
Ascot Road	11.9	13.8	17.6	5.7	**48%**
Avenue Road (#41/Newsam Avenue)	17.0	20.2	16.8	-0.2	-1%
Avenue Road (#95/Ida Road)	14.7	15.0	12.6	-2.1	**-14%**
Avondale Road	15.4	17.7	16.3	0.9	6%
Brampton Road	15.4	15.3	16.9	1.5	**10%**
Breamar Road	13.4	13.8	13.6	0.2	2%
Cissbury Road	15.2	14.6	14.1	-1.1	-7%
Clarence Road	13.4	15.2	13.2	-0.2	-1%
Clarendon Road	16.8	14.6	12.0	-4.8	**-29%**
Clinton Road	13.7	10.1	13.4	-0.3	-2%
Colina Mews	13.9	16.2	16.8	3.0	**21%**
Conway Road (@Avondale Road/Woodlands Park Road)	15.1	14.2	16.1	1.0	7%
Conway Road (@Rowley Road/Ritches Road)	12.9	12.1	11.6	-1.3	**-10%**
Cornwall Road (#47/West Green Road)	18.4	17.6	20.1	1.7	9%
Cornwall Road (@Penrith Road)	18.4	17.9	18.3	-0.1	-1%
Cranleigh Road	16.0	14.7	10.5	-5.5	**-34%**
Culvert Road	15.5	14.8	15.0	-0.4	-3%
Dagmar Road	11.7	11.6	13.8	2.1	**18%**
Elmar Road	11.4	11.4	10.7	-0.7	-6%
Etherley Road	16.4	15.2	14.7	-1.7	**-10%**
Falmer Road	12.1	13.0	16.2	4.2	**34%**
Glenwood Road	15.9	15.1	15.4	-0.5	-3%
Gorleston Road	16.6	16.9	18.6	2.0	**12%**
Greenfield Road	10.9	11.8	11.1	0.3	2%
Harringay Road (#67)	21.6	16.5	15.8	-5.8	**-27%**
Harringay Road (#68)	16.1	16.4	15.6	-0.5	-3%
Ida Road	14.4	14.8	14.2	-0.2	-1%
La Rose Lane (#31)	17.0	18.6	19.8	2.8	**16%**
La Rose Lane (@Chestnuts Park)	14.7	18.0	20.2	5.5	**37%**
North Grove	14.4	16.9	15.0	0.6	4%
Oulton Road	11.9	11.0	13.6	1.7	**14%**
Park Road	10.1	13.2	15.6	5.5	**55%**
Penrith Road	13.1	13.7	14.2	1.1	8%
Ritches Road	10.2	10.6	11.6	1.4	**14%**
Roslyn Road	14.8	13.2	13.9	-0.9	-6%
Rowley Road	13.8	14.2	12.4	-1.4	**-10%**
Seaford Road	17.2	17.8	18.1	0.9	5%
South Grove	16.8	14.4	16.7	-0.1	-1%

St Margaret's Avenue	12.5	13.4	13.1	0.6	5%
Stanley Road	14.7	14.9	13.3	-1.4	**-10%**
Station Crescent	13.1	12.8	14.3	1.2	9%
Suffield Road	14.3	14.8	14.5	0.2	2%
Terront Road	16.0	16.1	16.5	0.5	3%
Westerfield Road	17.3	16.1	17.3	0.0	0%
Woodlands Park Road (#16/Clarendon Road)	17.6	17.8	19.9	2.3	**13%**
Woodlands Park Road (#87/Avondale Road)	16.9	15.9	17.0	0.1	1%
Total/Average Internal*	**16.0**	**15.7**	**16.1**	**0.1**	**0%**

Table 18: 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) (%)
Abbotsford Avenue	16.5	9.8	15.3	-1.2	-7%
Alexandra Road (@North Grove)	12.9	13.7	11.1	-1.8	**-14%**
Ascot Road	15.4	17.2	22.3	6.9	**45%**
Avenue Road (#41/Newsam Avenue)	20	24.1	21.4	1.4	7%
Avenue Road (#95/Ida Road)	18.1	18.7	16.2	-1.9	**-10%**
Avondale Road	19.2	20.7	21	1.8	9%
Brampton Road	19.3	18.7	22.2	2.9	**15%**
Breamar Road	17.3	17.5	17.5	0.2	1%
Cissbury Road	19.9	19.4	18.9	-1.0	-5%
Clarence Road	18.5	19.3	16.7	-1.8	**-10%**
Clarendon Road	20.9	19.3	13.1	-7.8	**-37%**
Clinton Road	16.9	12.8	16.7	-0.2	-1%
Colina Mews	18.5	21.6	22.3	3.8	**21%**
Conway Road (@Avondale Road/Woodlands Park Road)	18.7	17.6	19.7	1.0	5%
Conway Road (@Rowley Road/Ritches Road)	16.5	13.6	14.5	-2.0	**-12%**
Cornwall Road (#47/West Green Road)	22.1	22.7	25.6	3.5	**16%**
Cornwall Road (@Penrith Road)	22.7	22.7	24.3	1.6	7%
Cranleigh Road	20.3	17.3	15.1	-5.2	**-26%**
Culvert Road	20.2	19.4	18.9	-1.3	-6%
Dagmar Road	14.5	14	17.5	3.0	**21%**
Elmar Road	14.2	13.7	13.8	-0.4	-3%
Etherley Road	20.7	18.6	18.5	-2.2	**-11%**
Falmer Road	14.7	14.8	20.6	5.9	**40%**
Glenwood Road	19.9	19.1	19.6	-0.3	-2%
Gorleston Road	20.9	21.8	23.5	2.6	**12%**
Greenfield Road	13.7	14.8	13.5	-0.2	-1%
Harringay Road (#67)	27.3	20.3	19.7	-7.6	**-28%**

Harringay Road (#68)	20.4	21.8	22	1.6	8%
Ida Road	19	19.6	19.1	0.1	1%
La Rose Lane (#31)	20.7	22.5	24.1	3.4	**16%**
La Rose Lane (@Chestnuts Park)	18.3	23	25.2	6.9	**38%**
North Grove	19	20.4	19.4	0.4	2%
Oulton Road	14	14	18.4	4.4	**31%**
Park Road	12.7	17	18.5	5.8	**46%**
Penrith Road	19	17.3	18.2	-0.8	-4%
Ritches Road	12.5	13.4	15.2	2.7	**22%**
Roslyn Road	18.4	16.1	17	-1.4	-8%
Rowley Road	17	18.4	15.1	-1.9	**-11%**
Seaford Road	21.7	21.5	23.2	1.5	7%
South Grove	21	18	21.2	0.2	1%
St Margaret's Avenue	14.5	15.9	17.2	2.7	**19%**
Stanley Road	16.4	17.2	15.6	-0.8	-5%
Station Crescent	16.4	16	18	1.6	**10%**
Suffield Road	18	18.9	18.7	0.7	4%
Terront Road	20.1	20.3	21.2	1.1	5%
Westerfield Road	21.2	19.6	21.2	0.0	0%
Woodlands Park Road (#16/Clarendon Road)	21.1	22.3	25.7	4.6	**22%**
Woodlands Park Road (#87/Avondale Road)	20.2	19.3	20.8	0.6	3%
Total/Average Internal*	**19.7**	**19.5**	**20.3**	**0.6**	**3%**

Table 19: % 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.)
Abbotsford Avenue	4%	0%	6%	2%
Alexandra Road (@North Grove)	0%	0%	0%	0%
Ascot Road	2%	6%	32%	**30%**
Avenue Road (#41/Newsam Avenue)	16%	49%	21%	5%
Avenue Road (#95/Ida Road)	5%	9%	2%	-3%
Avondale Road	15%	32%	21%	6%
Brampton Road	15%	12%	23%	**8%**
Breamar Road	5%	7%	4%	-1%
Cissbury Road	14%	13%	11%	-3%
Clarence Road	9%	12%	6%	**-3%**
Clarendon Road	20%	13%	5%	**-15%**
Clinton Road	4%	0%	3%	-1%
Colina Mews	9%	21%	24%	**15%**
Conway Road (@Avondale Road/Woodlands Park Road)	7%	5%	13%	6%
Conway Road (@Rowley Road/Ritches Road)	4%	2%	1%	**-3%**

Cornwall Road (#47/West Green Road)	29%	29%	47%	**18%**
Cornwall Road (@Penrith Road)	31%	31%	37%	6%
Cranleigh Road	19%	7%	1%	**-18%**
Culvert Road	14%	11%	8%	-6%
Dagmar Road	0%	0%	2%	2%
Elmar Road	0%	1%	0%	0%
Etherley Road	18%	11%	12%	-6%
Falmer Road	1%	2%	19%	**18%**
Glenwood Road	16%	11%	13%	-3%
Gorleston Road	20%	24%	37%	**17%**
Greenfield Road	0%	3%	1%	1%
Harringay Road (#67)	62%	22%	19%	**-43%**
Harringay Road (#68)	19%	22%	19%	0%
Ida Road	11%	14%	11%	0%
La Rose Lane (#31)	19%	33%	45%	**26%**
La Rose Lane (@Chestnuts Park)	5%	34%	48%	**43%**
North Grove	14%	25%	14%	0%
Oulton Road	1%	0%	9%	8%
Park Road	0%	5%	12%	**12%**
Penrith Road	4%	7%	7%	3%
Ritches Road	0%	0%	0%	0%
Roslyn Road	6%	3%	3%	-3%
Rowley Road	7%	7%	1%	-6%
Seaford Road	25%	27%	34%	9%
South Grove	20%	7%	22%	2%
St Margaret's Avenue	5%	4%	4%	-1%
Stanley Road	11%	10%	7%	-4%
Station Crescent	3%	2%	7%	**4%**
Suffield Road	11%	13%	11%	0%
Terront Road	17%	17%	21%	4%
Westerfield Road	22%	13%	22%	0%
Woodlands Park Road (#16/Clarendon Road)	21%	30%	45%	**24%**
Woodlands Park Road (#87/Avondale Road)	16%	14%	20%	4%
Total/Average Internal*	**15%**	**18%**	**21%**	**6%**

Table 20: 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) (%)
A503 Seven Sisters Rd (@Gourley Street)	No speed data available for video site				
A504 West Green Road (@Bedford Road/Lawrence Road)	22.2	20.7	19.8	-2.4	**-11%**
A504 West Green Road (@Carlingford Road)	19.6	17.6	16.6	-3.0	**-15%**

	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) (%)
A504 West Green Road (@Etherley Road)	18.2	17.4	19.2	1.0	6%
A504 West Green Road (@Suffield Road)	12.2	12.7	12.9	0.7	6%
Alfoxton Avenue	20.3	18.9	16.8	-3.5	**-17%**
B152 Harringay Road	14.2	14.7	15.4	1.2	8%
B152 Colina Road	12.4	13	12.5	0.1	1%
B152 St. Ann's Road (@Chestnuts Park)	19.5	23.2	24.0	4.5	**23%**
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	17.4	21.3	20.9	3.6	**20%**
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	18.0	20.9	22.1	4.1	**23%**
B152 St. Ann's Road (@Salisbury Road)	17.6	21.4	18.9	1.3	7%
B152 St. Ann's Road (@Suffolk Road)	21.9	20.8	23.0	1.1	5%
Total/Average Boundary Road*	**18.5**	**19.2**	**19.2**	**0.7**	**4%**

Table 21: 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) (%)
A503 Seven Sisters Rd (@Gourley Street)	No speed data available for video site				
A504 West Green Road (@Bedford Road/Lawrence Road)	27.3	25.1	24.0	-3.3	**-12%**
A504 West Green Road (@Carlingford Road)	24.5	22.4	21.0	-3.5	**-14%**
A504 West Green Road (@Etherley Road)	22.8	21.3	23.9	1.1	5%
A504 West Green Road (@Suffield Road)	16.0	16.8	16.7	0.7	4%
Alfoxton Avenue	24.1	22.3	20.0	-4.1	**-17%**
B152 Harringay Road	15.6	16.6	16.1	0.5	3%
B152 Colina Road	17.5	17.8	17.8	0.3	2%
B152 St. Ann's Road (@Chestnuts Park)	23.7	27.4	28.8	5.1	**22%**
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	21.6	25.3	24.7	3.1	**14%**
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	22.1	24.6	26.3	4.2	**19%**
B152 St. Ann's Road (@Salisbury Road)	21.4	25.2	22.5	1.1	5%
B152 St. Ann's Road (@Suffolk Road)	26.4	25.3	27.6	1.2	5%
Total/Average Boundary Road*	**22.7**	**23.2**	**23.3**	**0.6**	**2%**

Table 22: % 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.)
A503 Seven Sisters Rd (@Gourley Street)	No speed data available for video site			
A504 West Green Road (@Bedford Road/Lawrence Road)	67%	53%	45%	**-22%**
A504 West Green Road (@Carlingford Road)	47%	34%	26%	**-21%**
A504 West Green Road (@Etherley Road)	34%	26%	42%	8%
A504 West Green Road (@Suffield Road)	7%	8%	7%	0%
Alfoxton Avenue	54%	40%	17%	**-37%**
B152 Harringay Road	0%	4%	4%	4%
B152 Colina Road	6%	3%	6%	0%
B152 St. Ann's Road (@Chestnuts Park)	45%	77%	81%	**36%**
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	28%	61%	58%	**30%**
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	29%	57%	68%	**39%**
B152 St. Ann's Road (@Salisbury Road)	24%	64%	35%	**11%**
B152 St. Ann's Road (@Suffolk Road)	65%	54%	75%	**10%**
Total/Average Boundary Road*	**38%**	**45%**	**44%**	**6%**

Insights: Vehicle Speeds

Overall, vehicle speed data indicates that vehicle speed metrics did not change significantly on either internal or on boundary roads.

On internal roads, data demonstrates that average speeds across internal roads increased by 0.1mph when compared to Pre LTN vehicle speeds (0%). The most notable increase in average vehicle speed was observed on Ascot Road which observed an increase of 5.7mph (from 11.9mph to 17.6mph, +48%). Falmer Road, La Rose Lane (@Chestnuts Park), Park Road and Ascot Road all observed increases exceeding 4mph of average speed. Conversely, Harringay Road (#67), Cranleigh Road, Clarendon Road recorded a decrease in average speed ranging between 4.8mph and 5.8mph. The 85th percentile speed of motorised vehicles on internal roads increased by 3% between November 2021 (Pre LTN) and November 2023 (Post LTN-Now). Clarendon Road and Harringay Road (#67) observed the most significant decreases, while La Rose Lane (@Chestnuts Park) and Ascot Road recorded an increase in 85th percentile of nearly 7mph. Internal roads also saw a 6% increase in the percentage of vehicles speeding, with La Rose Lane (@Chesnuts Park) and Ascot Road once again driving this change with respective increases of 43% and 30%.

The situation on boundary roads did not change significantly between November 2021 and January 2023. Overall, average speeds increased by 0.7mph (from 18.5mph to 19.2mph, +4%), 85th percentile speed increased by 2%, and the percentage of speeding vehicles increased by 6% between the two periods. The increase in average speeds was driven by the 23% increase observed on B152 St. Ann's Road (@Rowley Road/La Rose Lane), which equates to 4.1mph (from 18.0mph to 22.1mph). B152 St. Ann's Road (@Hermitage Road/Cornwall Road) and B152 St. Ann's Road (@Chestnuts Park) also observed average speed increases exceeding 20%. On the other hand, various sites on A504 West Green Road saw decreases of over 10% in average speed. The same sites experienced the largest increases in 85th percentile speed and in average speed, while the same sites experienced the largest decreases in 85th percentile speed and in average speed.

Overall, vehicle speed data indicates that vehicle speed metrics remained broadly the same on boundary and internal sites. Results remain within the 10% and -10% changes and are therefore minimal.

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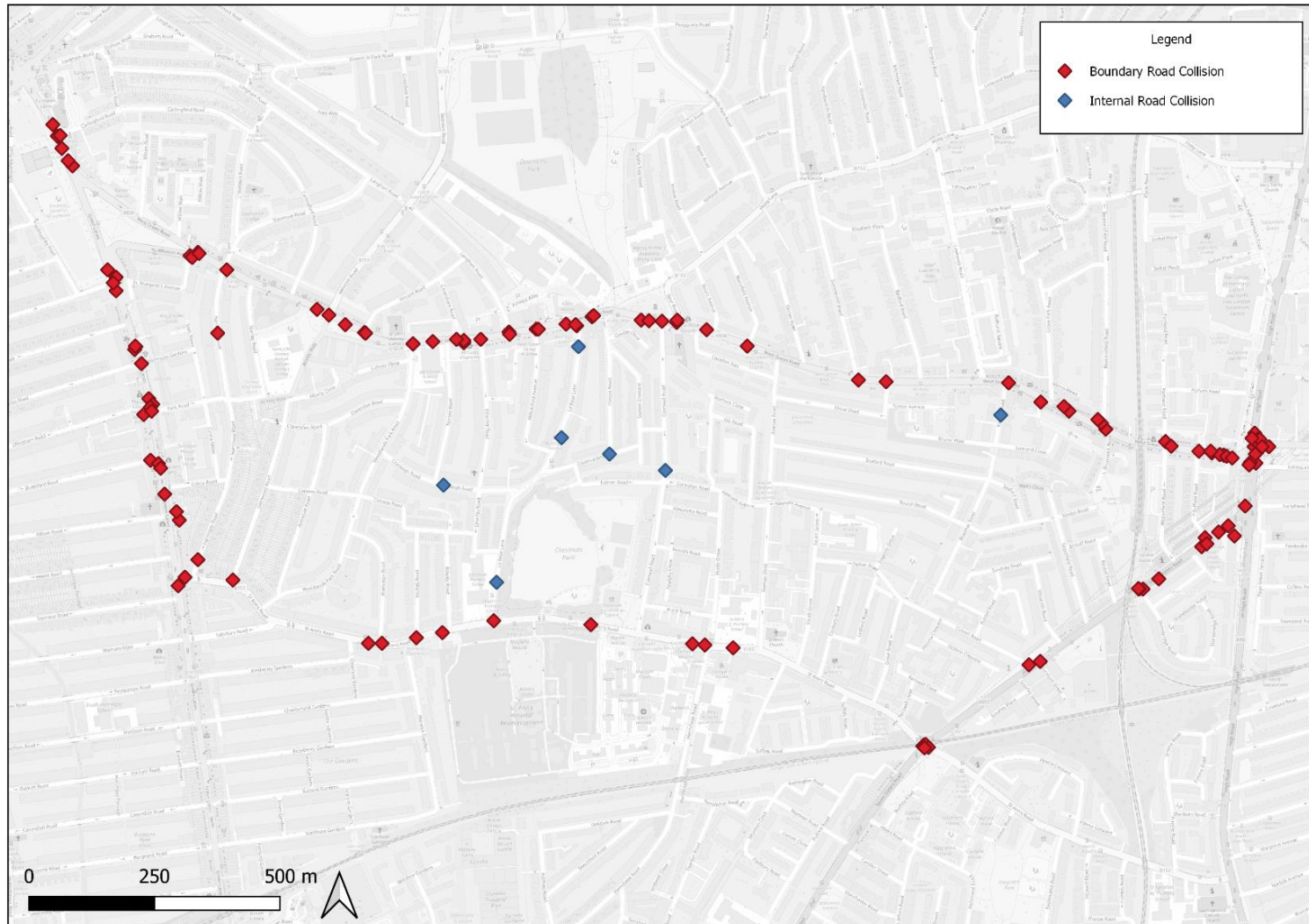
*It should be noted that coordinates do not always clearly outline an internal/boundary road. In such cases, the actual street name was referenced to confirm which category the collision belonged to.

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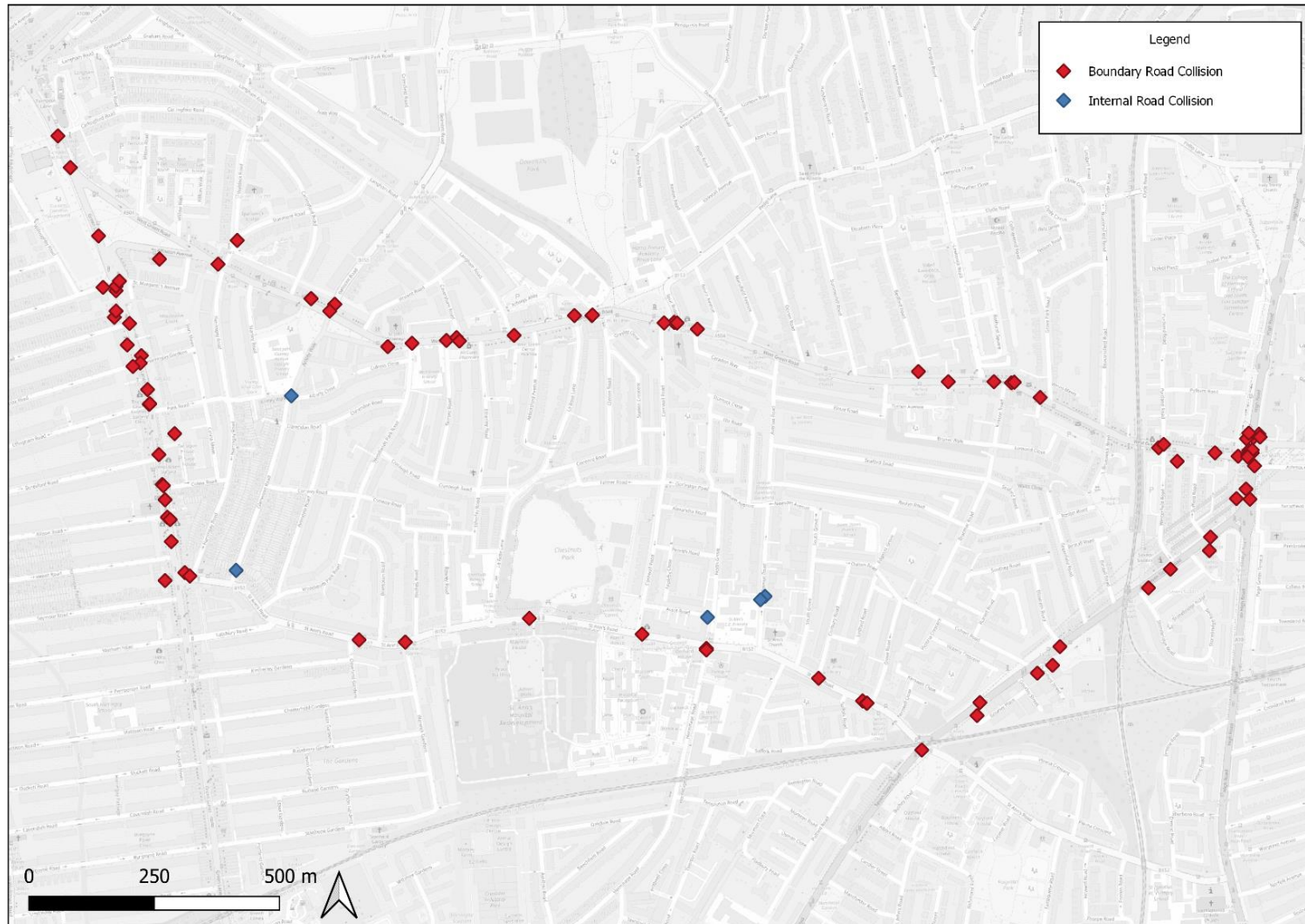
*It should be noted that coordinates do not always clearly outline an internal/boundary road. In such cases, the actual street name was referenced to confirm which category the collision belonged to.

Table 23: Collision Volumes, Internal Roads

	Internal, Pre-Implementation	Internal, Post-Implementation	Internal, Change	Internal, % Change
# Fatal Collisions	0	0	0	0%
# Serious Collisions	0	2	2	0%
# Slight Collisions	7	3	-4	-57%
Total Collisions	7	5	-2	-29%

Table 24: Casualty Volumes, Internal Roads

	Internal, Pre-Implementation	Internal, Post-Implementation	Internal, Change	Internal, % Change
# Fatal Casualties	0	0	0	0%
# Serious Casualties	0	2	2	0%
# Slight Casualties	7	3	-4	-57%
Total Casualties	7	5	-2	-29%

Table 25: Collision Volumes, Boundary Roads

	Boundary, Pre-Implementation	Boundary, Post-Implementation	Boundary, Change	Boundary, % Change
# Fatal Collisions	0	1	1	0%
# Serious Collisions	15	12	-3	-20%
# Slight Collisions	107	83	-24	-22%
Total Collisions	122	96	-26	-21%

Table 26: Casualty Volumes, Boundary Roads

	Boundary, Pre-Implementation	Boundary, Post-Implementation	Boundary, Change	Boundary, % Change
# Fatal Casualties	0	1	1	0%
# Serious Casualties	16	12	-4	-25%
# Slight Casualties	111	92	-19	-17%
Total Casualties	127	105	-22	-17%

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 an overall basis, there appears to have been a 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 and casualties on internal roads has gone down by 29%, 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 21%, with casualties dropping by 17%.

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.

Bus Speeds on Boundary Roads

TfL monitors bus speeds 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 three main boundary road corridors below. A map of these corridors is presented on the following page.

- **Green Lanes** (Routes 29, 41, 67, 141, 230, N29, N41, W4)

- **High Road** (Routes 76, 123, 149, 243, 259, 279, 318, 341, 349, 476, N73, N279, W4)

- **La Rose Lane** (Routes 67, 341)

- **St. Ann's Road** (Routes 67, 341)

- **Seven Sisters Road** (Routes 259, 279, L1, L2, N279)

- **West Green Road** (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 speeds by route, stop-to-stop link and peak periods. These speeds 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 18: 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

Westbury Avenue
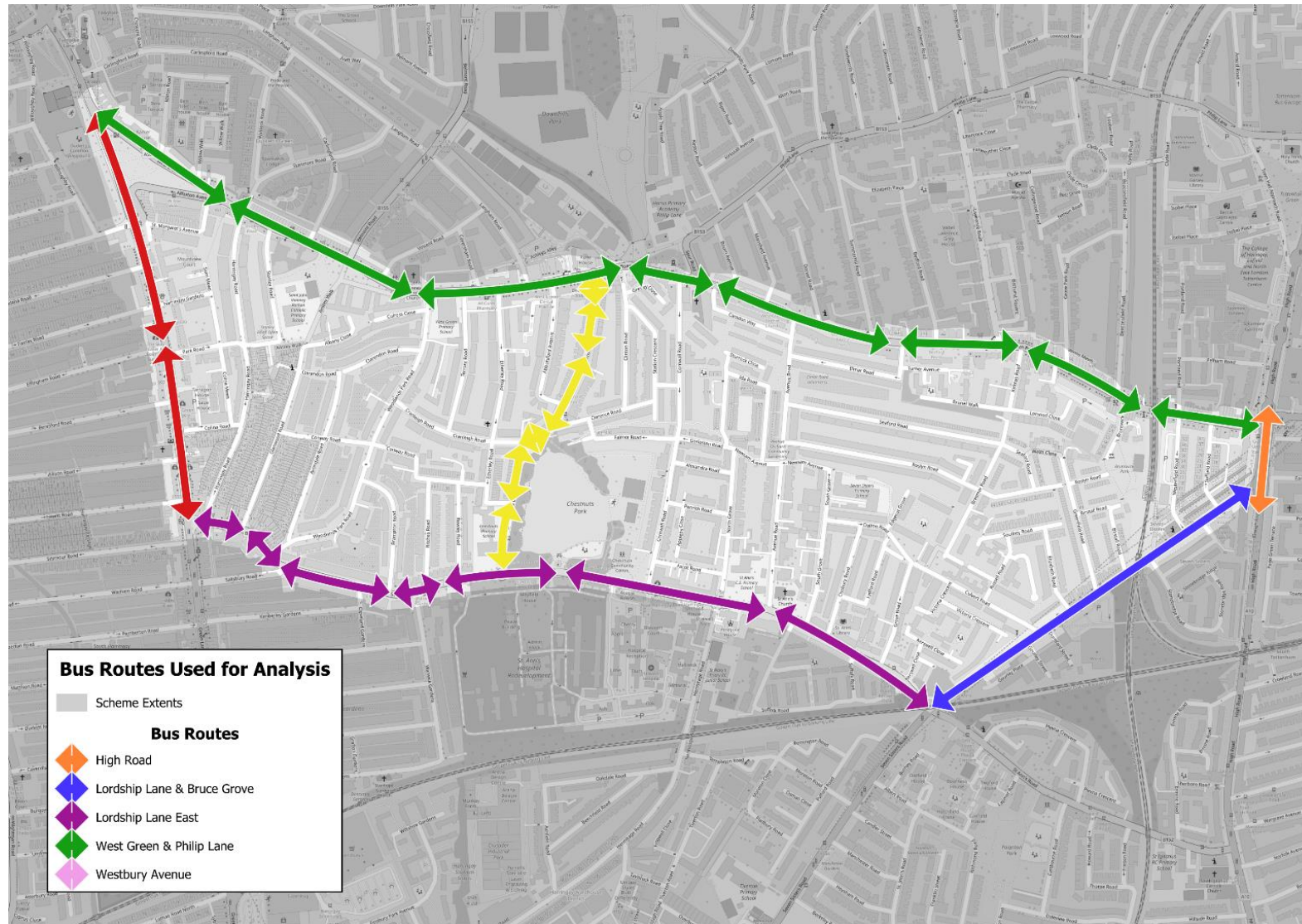
The results are shown in Graphs 4 to 9 on the following pages. The dashed red lines indicate the baseline threshold, and the red line indicates the average journey times, on a three-week basis.
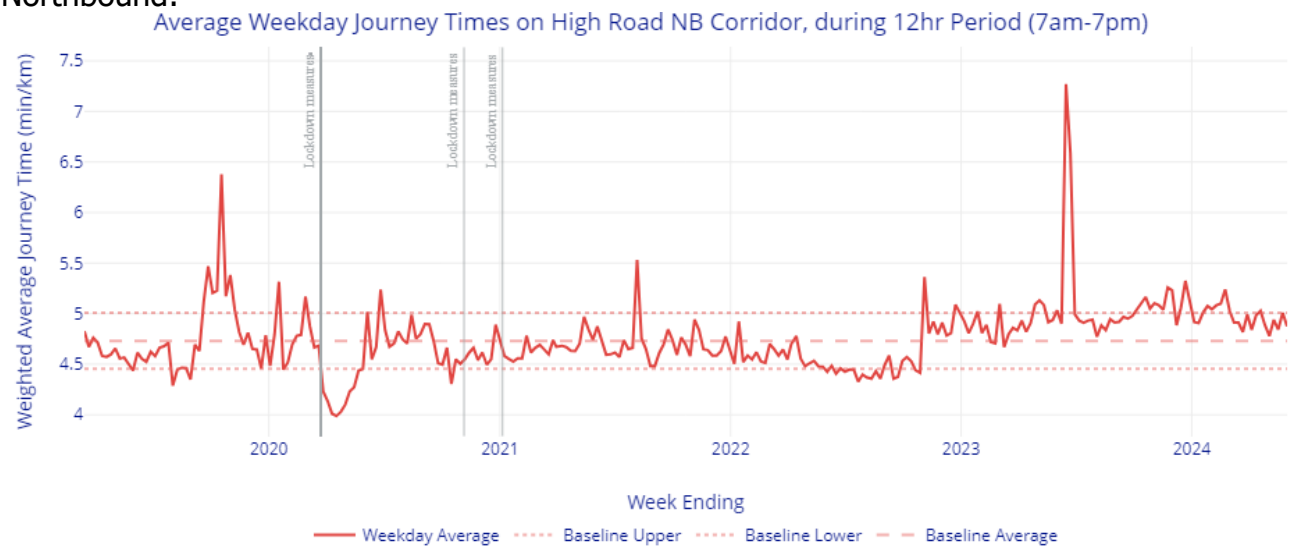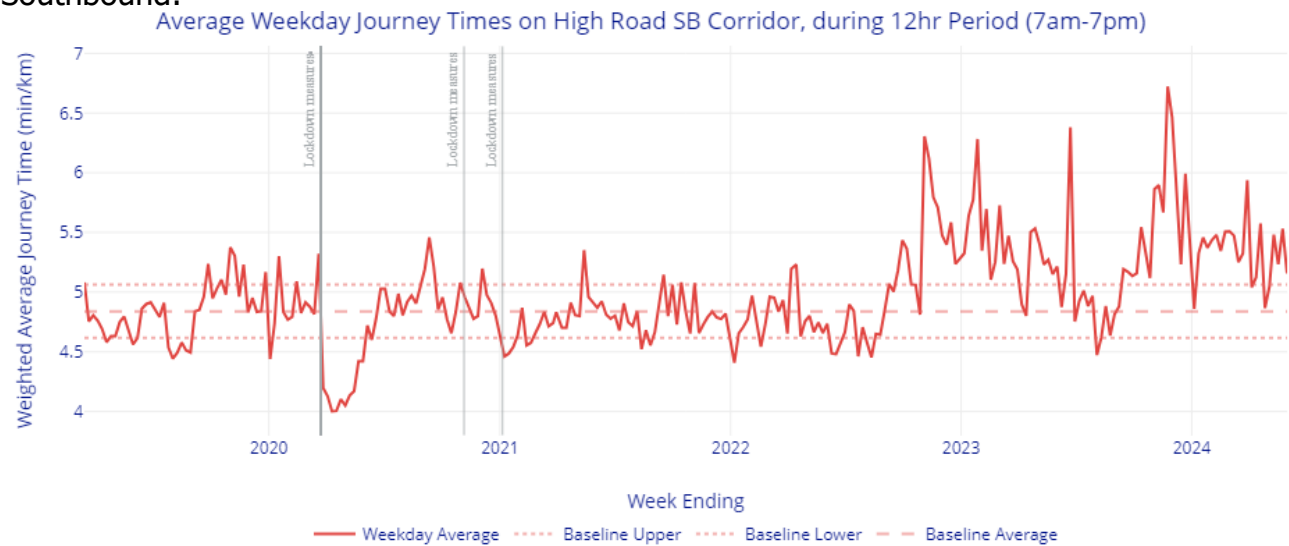
Graph 5: Green Lanes Corridor

Northbound:

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

Southbound:

Average Weekday Journey Times on Green Lanes SB Corridor, during 12hr Period (7am-7pm)
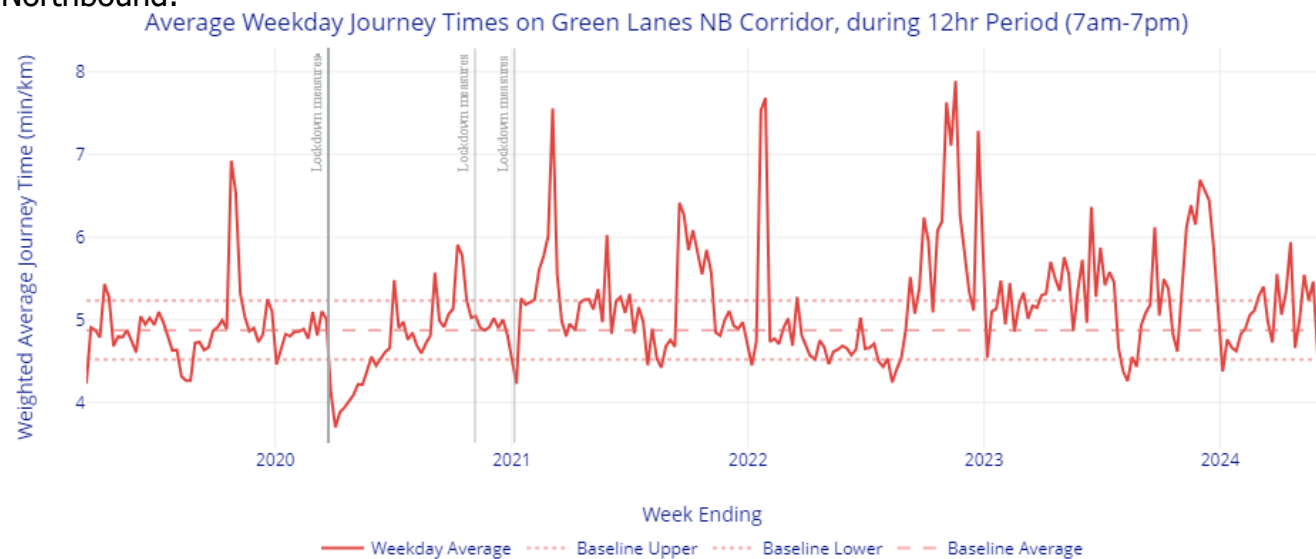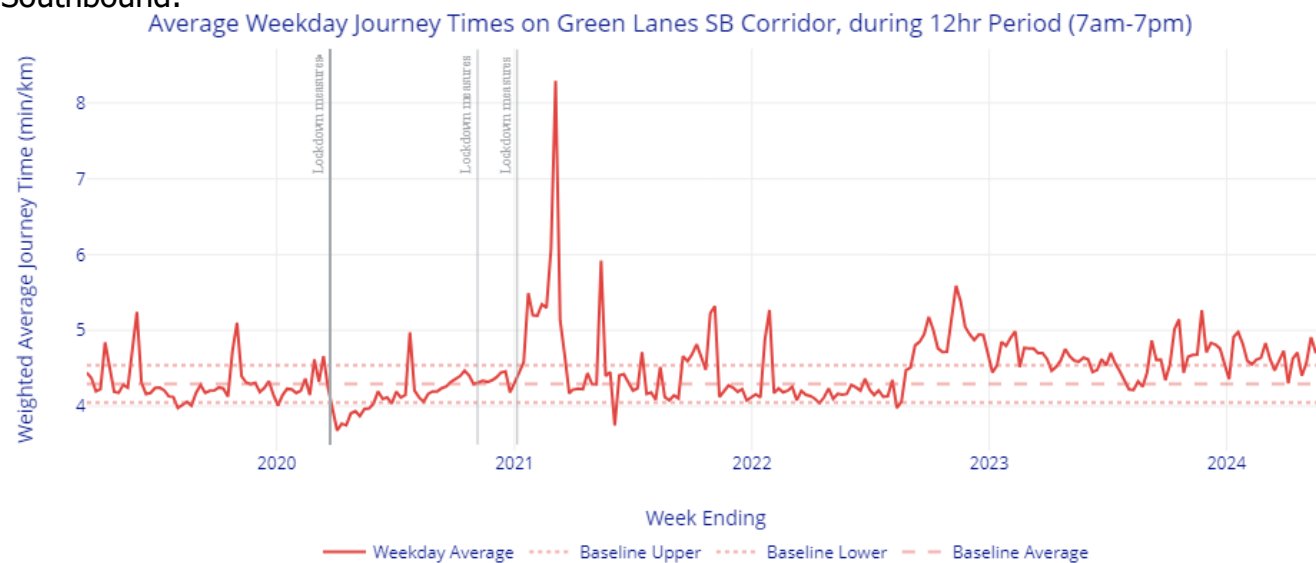
Graph 6: High Road Corridor

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)

Graph 7: La Rose Lane Corridor

Northbound:

Average Weekday Journey Times on La Rose Lane NB Corridor, during 12hr Period (7am-7pm)

Southbound:

Average Weekday Journey Times on La Rose Lane SB Corridor, during 12hr Period (7am-7pm)
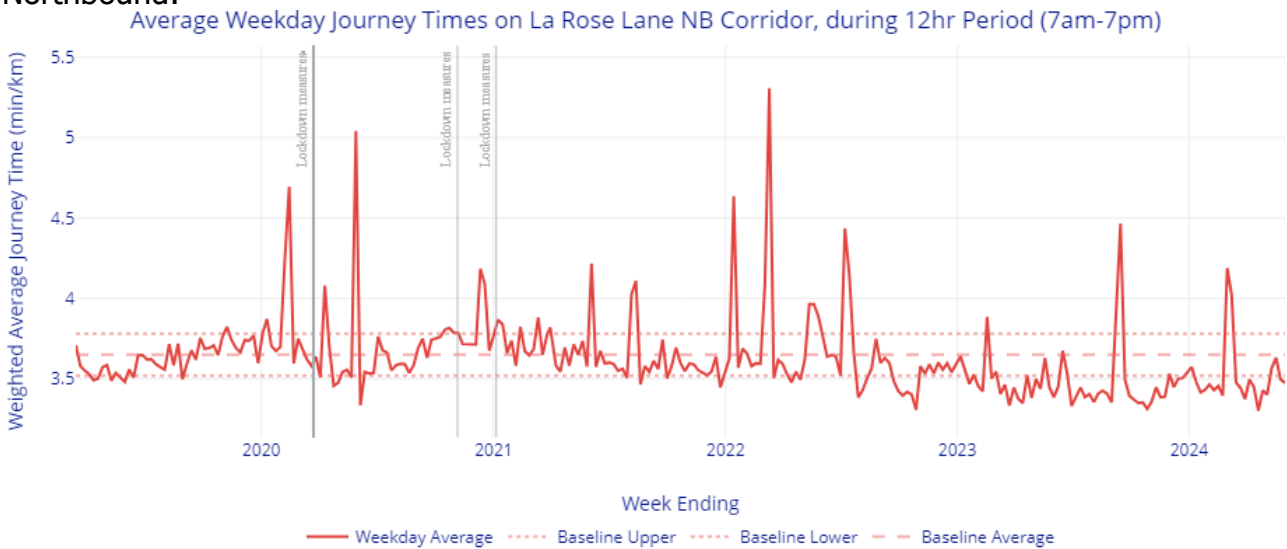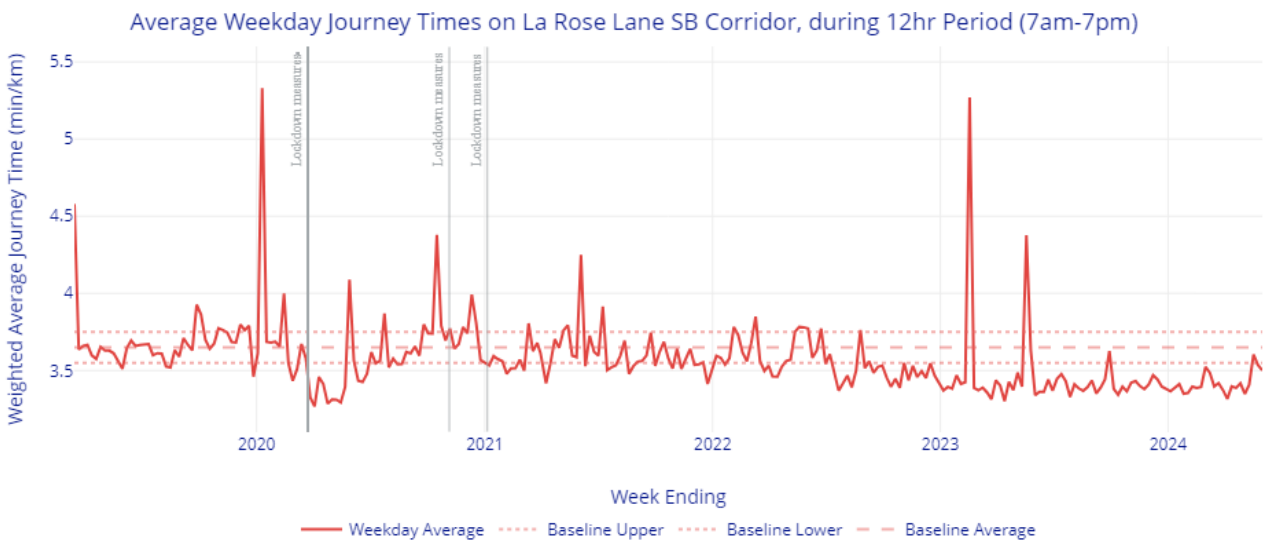
Graph 8: St. Ann's Road Corridor

Westbound:

Average Weekday Journey Times on St Anns Road WB Corridor, during 12hr Period (7am-7pm)

Eastbound:

Average Weekday Journey Times on St Anns Road EB Corridor, during 12hr Period (7am-7pm)
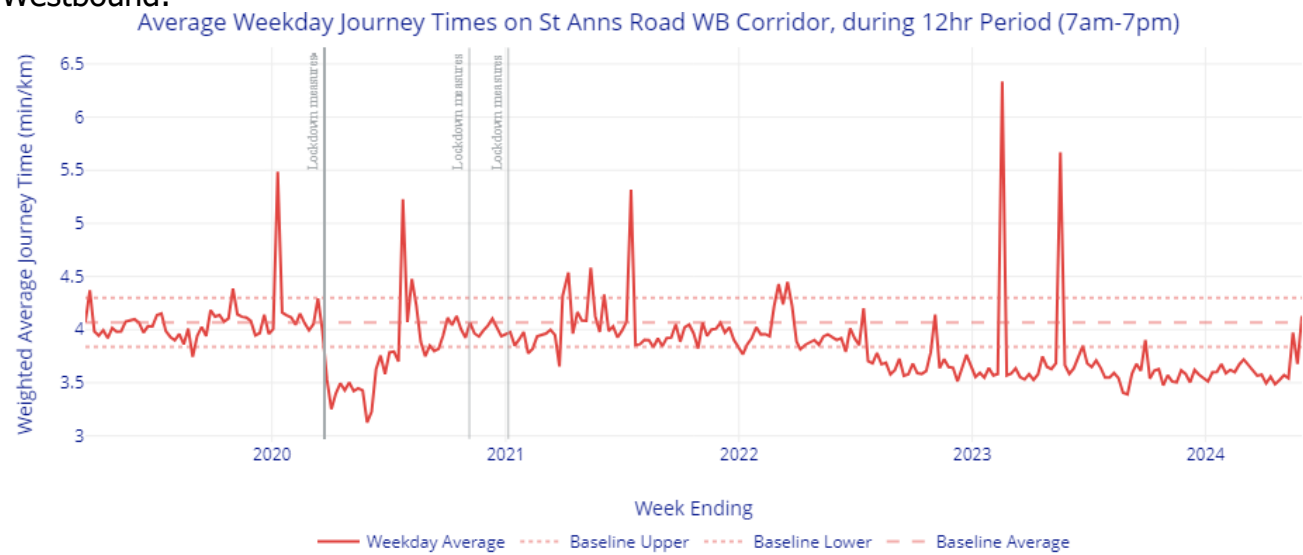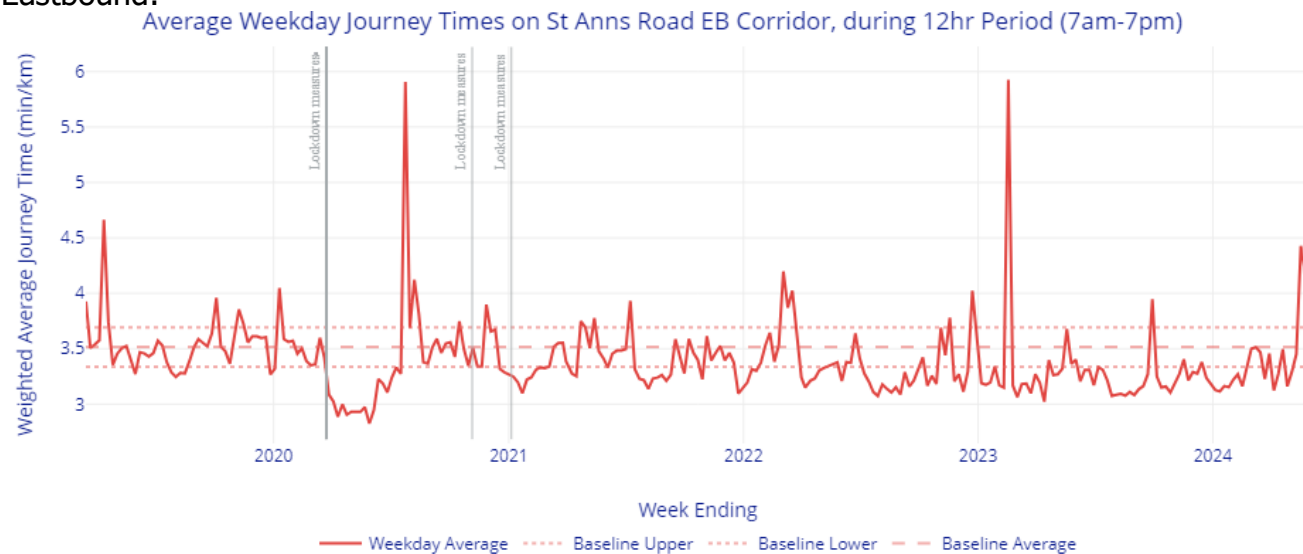
Graph 9: Seven Sisters Road Corridor

Northbound:

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

Southbound:

Average Weekday Journey Times on Seven Sisters Road SB Corridor, during 12hr Period (7am-7pm)
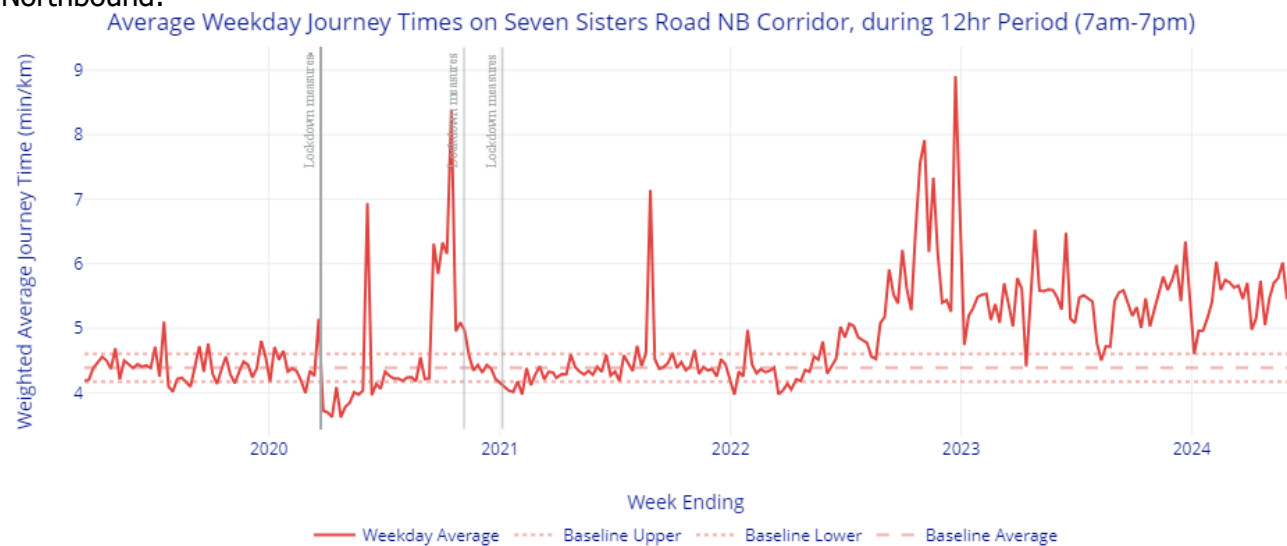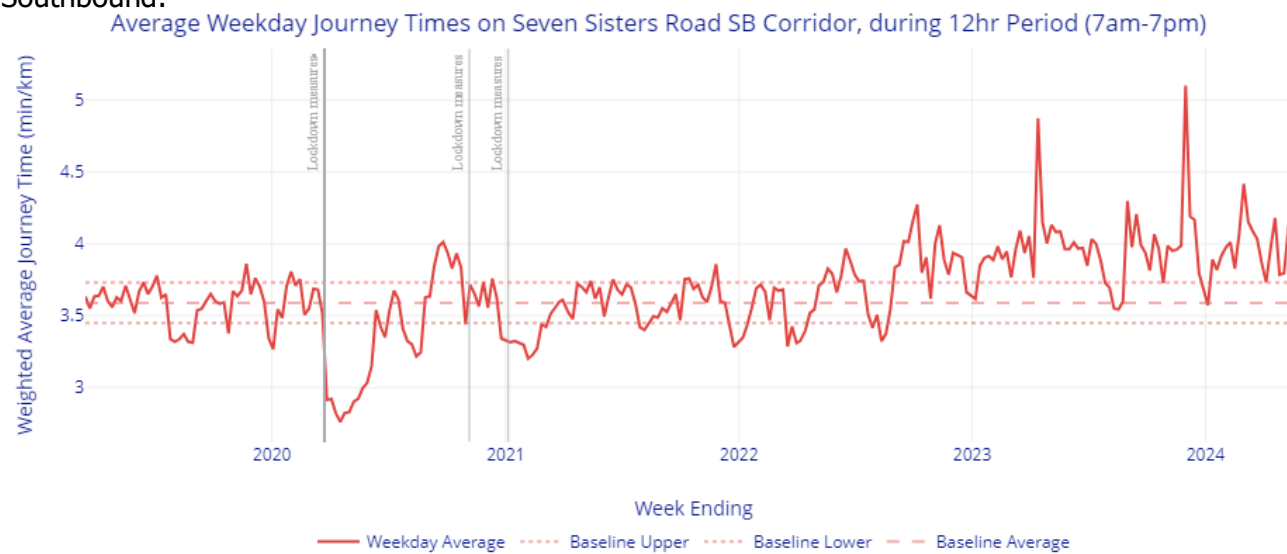
Graph 10: West Green Road Corridor

Westbound:

Average Weekday Journey Times on West Green Road WB Corridor, during 12hr Period (7am-7pm)

Eastbound:

Average Weekday Journey Times on West Green Road EB Corridor, during 12hr Period (7am-7pm)
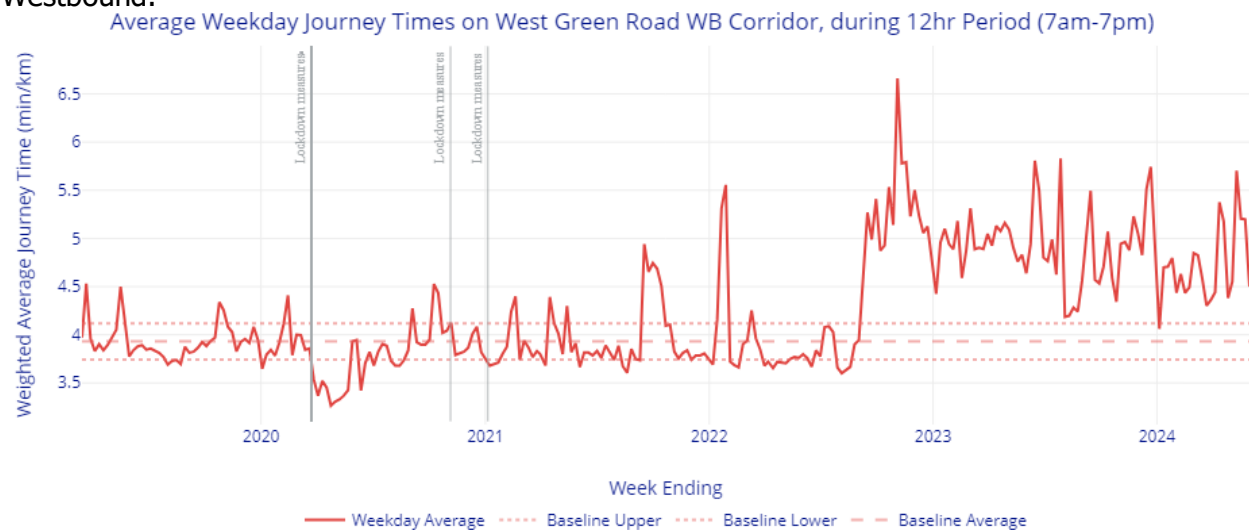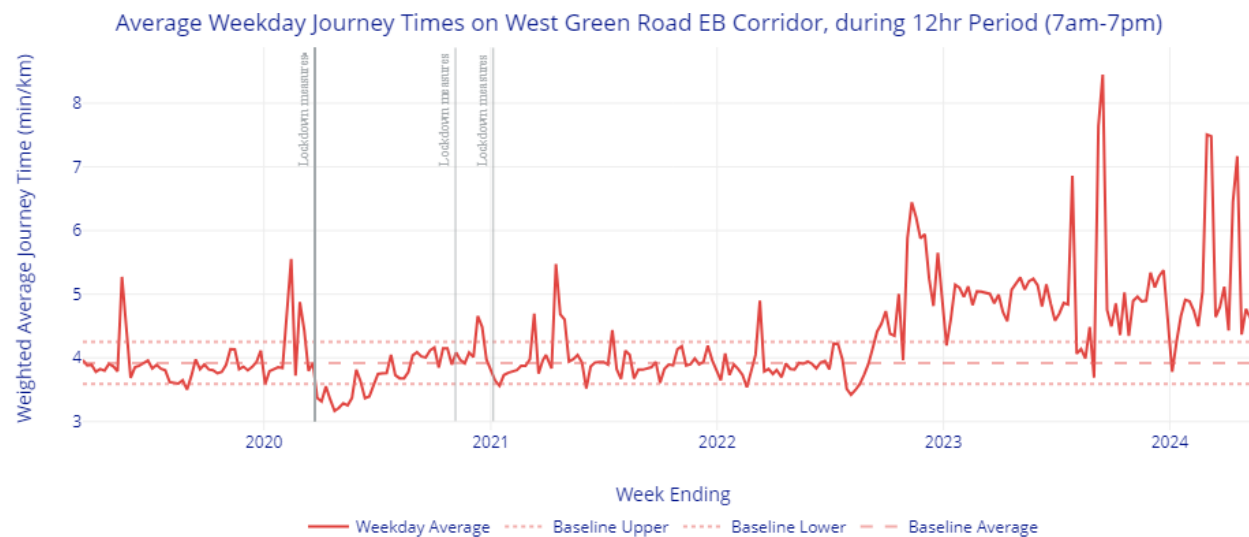
Insights: Bus Speeds on Boundary Roads

Green Lanes – Bus Speeds

Since the trial LTN has been introduced, average speeds on the northbound corridor between 7am-7pm are showing an increase of average journey time of 0.4min/km in comparison to the baseline average. There is an average journey time of 5.3min/km. This corridor has seen similar variability to pre-LTN bus speeds.

Since the trial LTN has been introduced, average speeds on the southbound corridor between 7am-7pm are showing an increase of average journey time of 0.5min/km in comparison to the baseline average. There is an average journey time of 4.8min/km. There is less variability than pre-LTN bus speeds.

High Road – Bus Speeds

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

Since the trial LTN has been introduced, average speeds on the southbound corridor between 7am-7pm are showing an increase of 0.5min/km in comparison to the baseline average. Average bus speeds show an average of 5min/km. This corridor has seen more variability than pre-LTN bus speeds.

La Rose Lane – Bus Speeds

Since the trial LTN has been introduced, average speeds on the northbound corridor between 7am-7pm have shown a decrease in average journey time of 0.5min/km in comparison to the baseline average. There is an average journey time of 3.2min/km. This corridor has seen less variability than pre-LTN bus speeds.

Since the trial LTN has been introduced, average speeds on the southbound corridor between 7am-7pm have shown a decrease in average journey time of 0.5min/km in comparison to the baseline average. There is an average journey time of 3.2min/km. This corridor has seen less variability than pre-LTN bus speeds.

St. Ann's Road – Bus Speeds

Since the trial LTN has been introduced, average speeds on the westbound corridor between 7am-7pm are showing a decrease of average journey time of 0.6min/km in comparison to the baseline average. There is an average journey time of 3.6min/km. This corridor has generally seen less variability than pre-LTN bus speeds, apart from two peaks exceeding 5.5min/km in early 2023.

Since the trial LTN has been introduced, average speeds on the eastbound corridor between 7am-7pm are showing a decrease of average journey time of 0.25min/km time in comparison to the baseline average. There is an average journey time of 3.25min/km. This corridor has more less variability than pre-LTN bus speeds.

Seven Sisters Road – Bus Speeds

Since the trial LTN has been introduced, average speeds on the northbound corridor between 7am-7pm are showing an increase of average journey time of 1.1min/km in comparison to the baseline average. There is an average journey time of 5.5min/km. This corridor has seen significantly more variability than pre-LTN bus speeds.

Since the trial LTN has been introduced, average speeds on the southbound corridor between 7am-7pm are showing an increase average of journey time of 0.4min/km in comparison to the baseline average. There is an average journey time of 4min/km. This corridor has seen more variability than pre-LTN bus speeds.

West Green Road – Bus Speeds

Since the trial LTN has been introduced, average speeds on the westbound corridor between 7am-7pm are showing an increase of 1.1min/km of average journey time in comparison to the baseline average. There is an average journey time of 5.1min/km. This corridor has seen significantly more variability than pre-LTN bus speeds.

Since the trial LTN has been introduced, average speeds on the eastbound corridor between 7am-7pm are showing an increase of 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 speeds.

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 report, 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 St. Ann's LTN are listed in Appendix 3, with details about type and location. The wider-borough sites that are being used for comparison work in this report consist of eight boundary road diffusion tubes, six internal road diffusion tubes and four urban background tubes. For the St Ann's scheme, there are three boundary road diffusion tubes and nine 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 (2019 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 with more accurate reference monitors (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 27: Average NO_2 levels for the 12 months on either side of implementation for monitoring sites, LTN scheme and borough

Monitoring Location- St Ann's LTN	Before LTN NO_2 $(\mu g/m^3)$	After LTN NO_2 $(\mu g/m^3)$	Before LTN vs After LTN NO_2 $(\mu g/m^3)$	Before LTN vs After LTN NO_2 (%)
Roadside (Boundary) - LTN	21.6	21.8	0.2	0.9%
Roadside (Boundary) - Borough	30.9	33.9	3.0	10%
Urban Background (Internal) - LTN	19.5	21.2	1.7	9%
Urban Background (Internal) - Borough	20.9	22.5	1.6	8%
All - LTN	20	20.3	0.3	1.5%
All - Borough	25.2	27.3	2.1	8%

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 28: Average NO_2 levels for the 12 months on either side of implementation for monitoring sites, Internal Roads

Internal - Location / Road	NO_2 Annual Mean Objective $(40\mu g/m^3)$	
	Before LTN (August 2021 - July 2022)	After LTN(August 2022 - July 2023)
Saint John Vianney Roman Catholic Pr. School, N15 3HB	18.1	23.4
26 Clarendon Rd, Harringay Ladder, London N15 3JX	23.8	23.6
West Green Primary School, Woodlands Park Rd, London N15 3RH	18.5	18.2
Woodlands Park Nur. Sch., 74-76 Woodlands Park Rd, N15 3SD	17.6	17.4
Chestnuts Primary School, La Rose Lane (formerly Black Boy Lane), London, N15 3AR	17.7	16.7
114 Cornwall Rd, London N15 5AU	16.9	16.7
St Ann's CE Primary School, Avenue Rd, London N15 5JG	18.9	18.7
Seven Sisters Primary Sch, Edgecot Grove, London, N15 5HD	26.7	26.4
20, Suffield Road, London, N15 5JX	17.0	16.8

Table 29: Average NO₂ levels for the 12 months on either side of implementation for monitoring sites, Boundary Roads

Boundary - Location / Road	NO₂ Annual Mean Objective (40μg/m³)	
	Before LTN (August 2021 - July 2022)	After LTN (August 2022 - July 2023)
St. Ann's Hospital, St Ann's Road, London N15 5BN	26.3	27.5
The Green Dental Surgery, 200 W Green Rd, London N15 5AG	19.4	19.2
730 Seven Sisters Rd, South Tottenham, London N15 5NH	18.9	18.7

The chart below shows the trendlines for air quality sites within the St. Ann's LTN, as well as across the wider Borough, allowing for easy comparison of trends in NO₂ levels for boundary, urban background and all roads combined.

Graph 11: Average NO₂ Levels in St Ann's LTN Compared to Long-Term Borough-Wide Sites from Diffusion Tubes
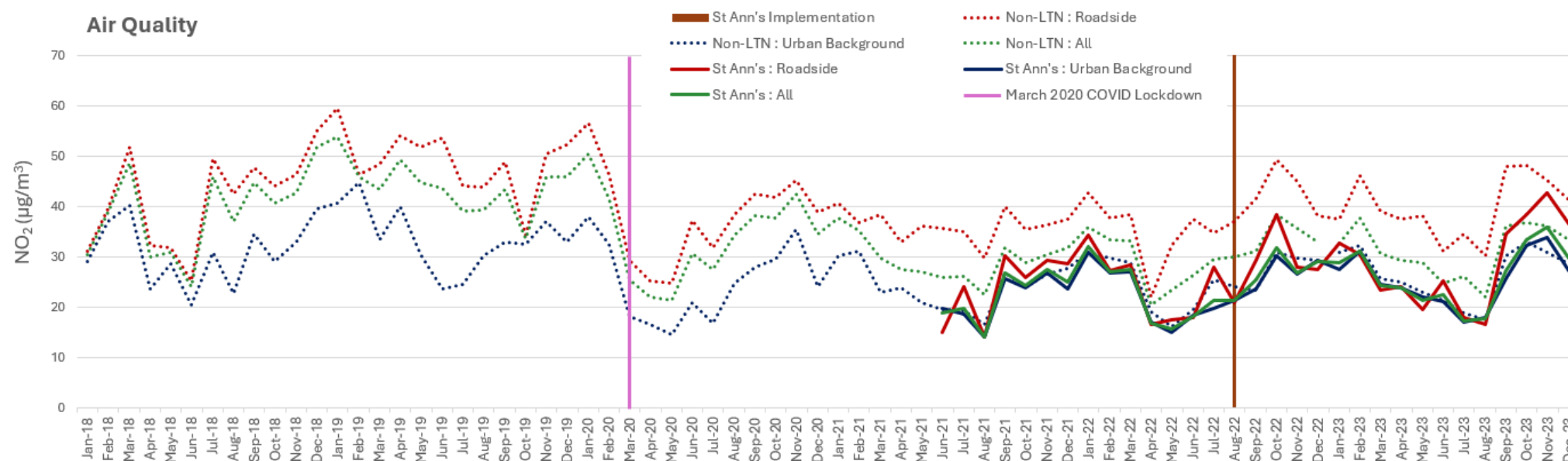
Insights: Air Quality

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 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 scheme were implemented – indicating no specific impact from its 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. All locations in the St. Anns LTN experienced an average NO_2 increase of 0.3 ug/m3 (~1.5%) since implementation (based on 12 months of data). Overall, the concentration of NO_2 increased by 1.5% for the sites in the LTN scheme area and by 8% for sites 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 St Ann's 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 including 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 St Ann's 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 12: Proportional Breakdown of Calls and Crimes in St Ann's LTN and Haringey

88
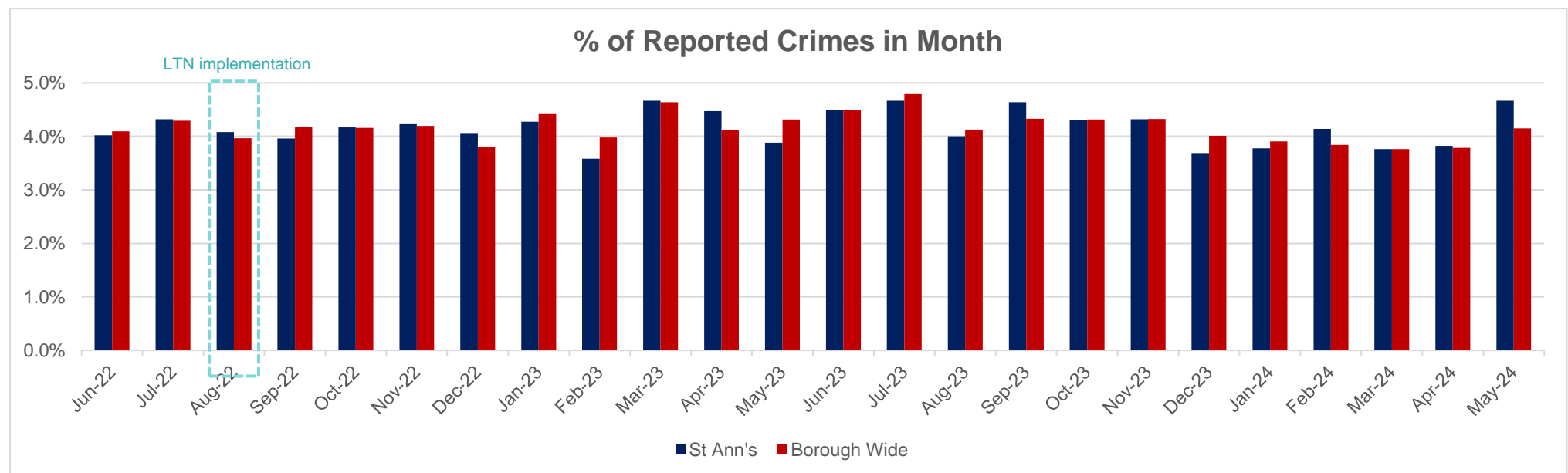
Insights: Anti-Social Behaviour and Crime Patterns

Pre LTN, St Ann's showed lower % of reported crimes than the rest of the borough, however this was not the case in May and July 2022, in which St Ann's had a higher % of reported crimes than at borough-level. The minimum observed in St Ann's was 4% (4% borough-wide), the maximum observed in St Ann's was 4.3% (4.3% borough-wide), and the Pre LTN average was 4.1% in both St Ann's and borough-wide. As such, Pre LTN, similar levels of reported crimes per month were observed.

Post LTN, as shown above, patterns in the LTN area and in the borough have been very similar. Both display an average of 4.2% throughout the study period, St Ann's has a minimum % of reported crimes of 3.6% while it is 3.8% borough-wide; the maximum is 4.7% in St Ann's area and 4.8% borough-wide. While % levels have increased slightly following the introduction of the LTN scheme, this has been the case both in the scheme area and in the borough as a whole.

Findings indicate that 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 St Ann's 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 St. Ann's 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 St. Ann's 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 Bruce Grove West Green LTN scheme, both St Ann's and Bruce Grove West Green LTNs have been considered for this analysis.

Total weekly footfall is shown in the following page.

Graph 13: Footfall Data

Bruce Grove Total Weekly Footfall - 2022/24

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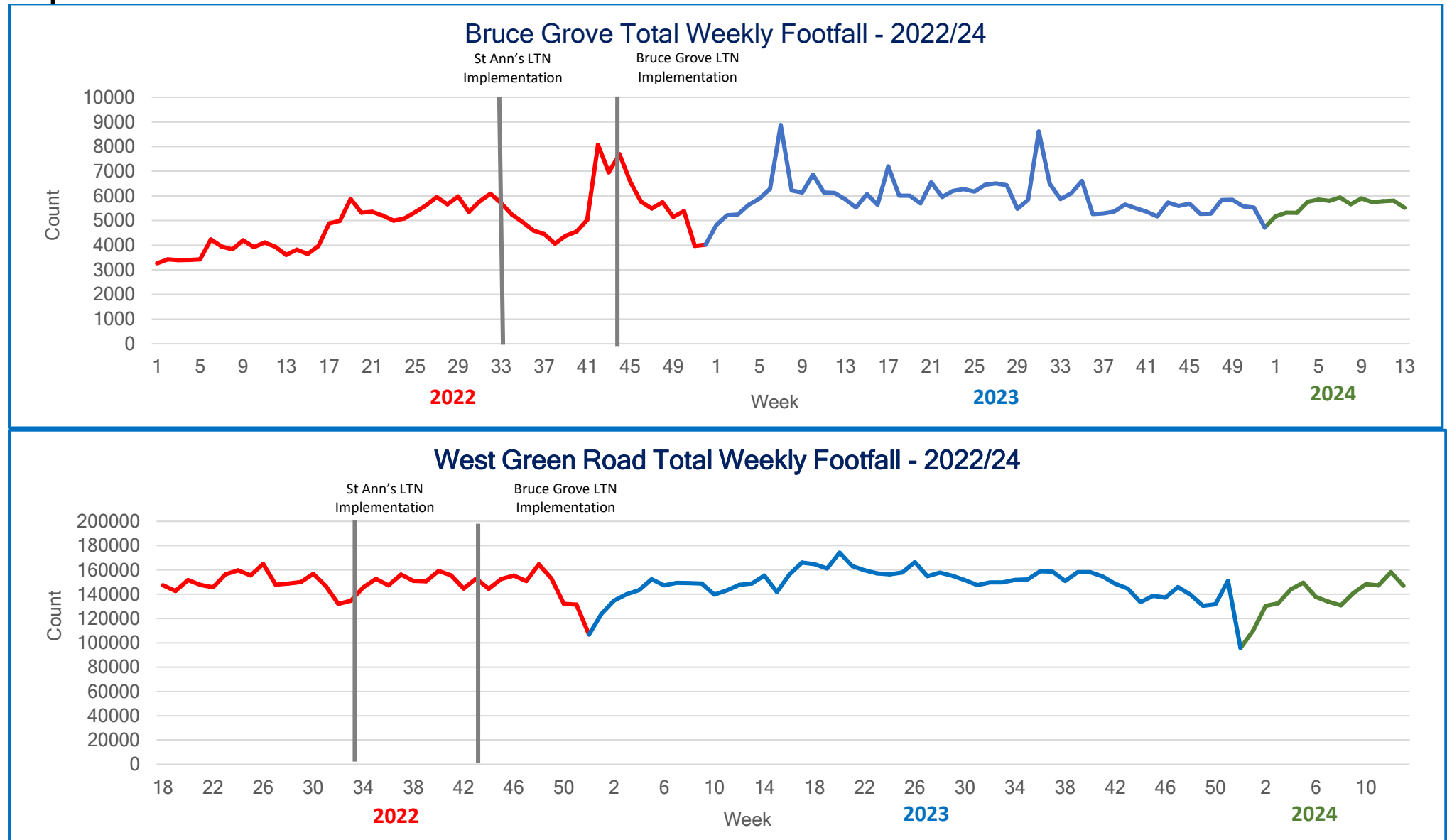
Insights: Footfall within the LTN

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 St Ann's 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 St Ann's LTN.

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 St Ann's LTN.

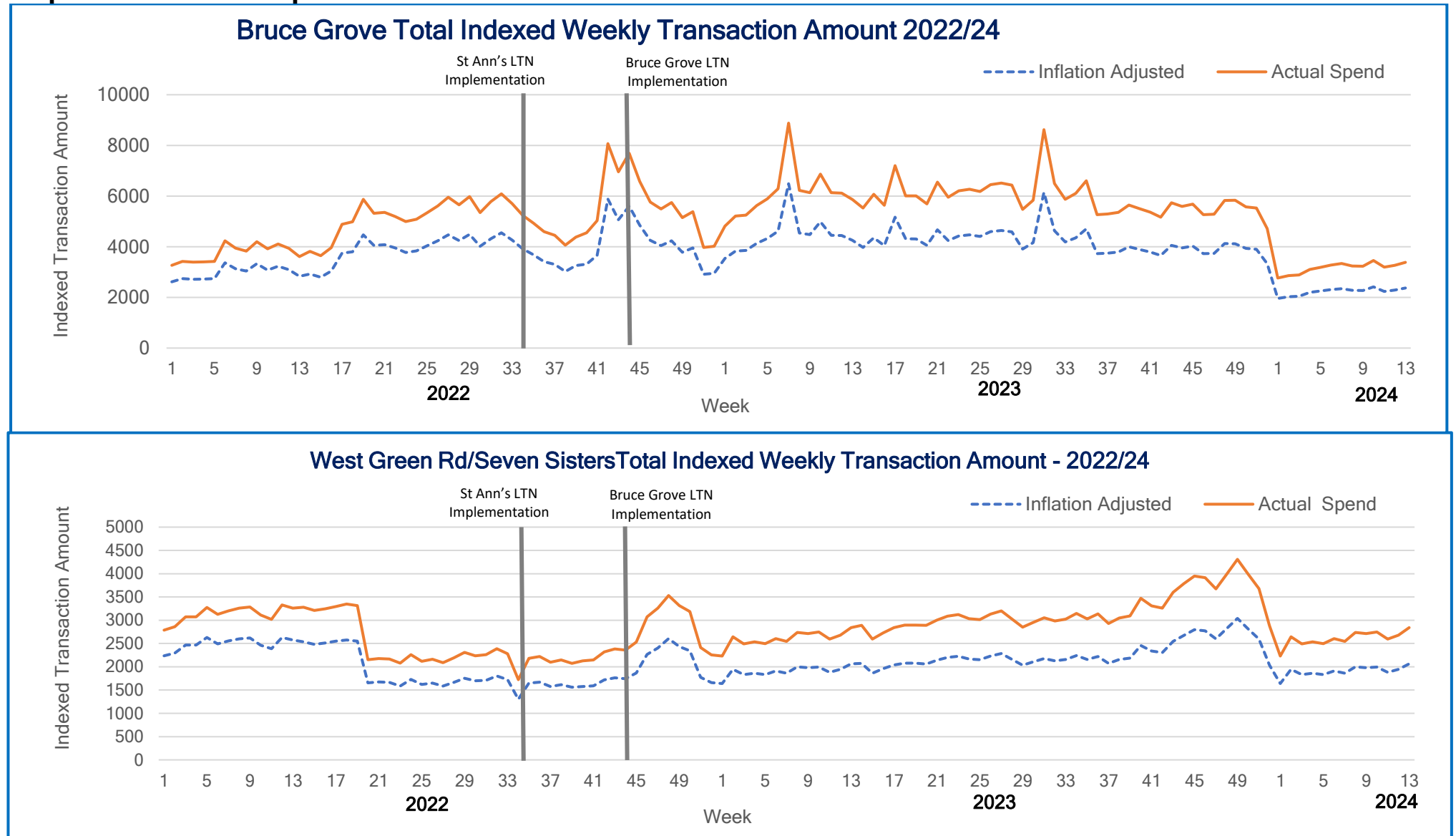# Instore Card Spend within the LTN

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 St Ann's LTN. Instore card spend data in the St Ann's scheme area is available between 2022 and mid-March 2024. Index transaction amounts before and after the implementation of the LTN are shown below.

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 14: Instore Card Spend

Bruce Grove Total Indexed Weekly Transaction Amount 2022/24

St Ann's LTN Implementation

Bruce Grove LTN Implementation

- - - Inflation Adjusted ——— Actual Spend

Indexed Transaction Amount

10000
8000
6000
4000
2000
0

Week

1 5 9 13 17 21 25 29 33 37 41 45 49 1 5 9 13 17 21 25 29 33 37 41 45 49 1 5 9 13

2022   2023   2024

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

St Ann's LTN Implementation

Bruce Grove LTN Implementation

- - - Inflation Adjusted ——— Actual Spend

Indexed Transaction Amount

5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0

Week

1 5 9 13 17 21 25 29 33 37 41 45 49 1 5 9 13 17 21 25 29 33 37 41 45 49 1 5 9 13

2022   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 higher than Pre LTN levels. However, no causal relationship between the introduction of the LTNs and the instore card spend can be made.
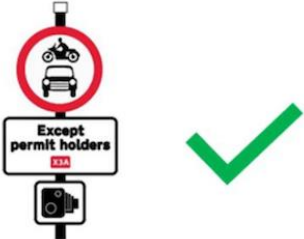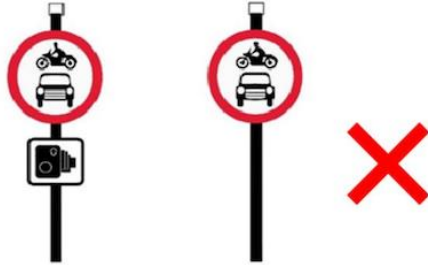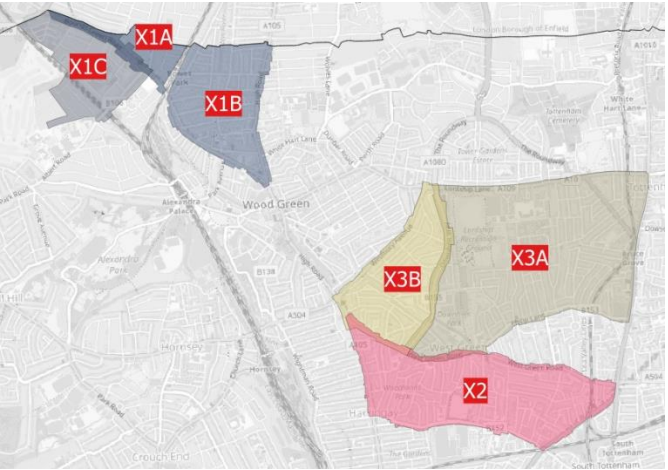
Exemptions

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 30: 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.
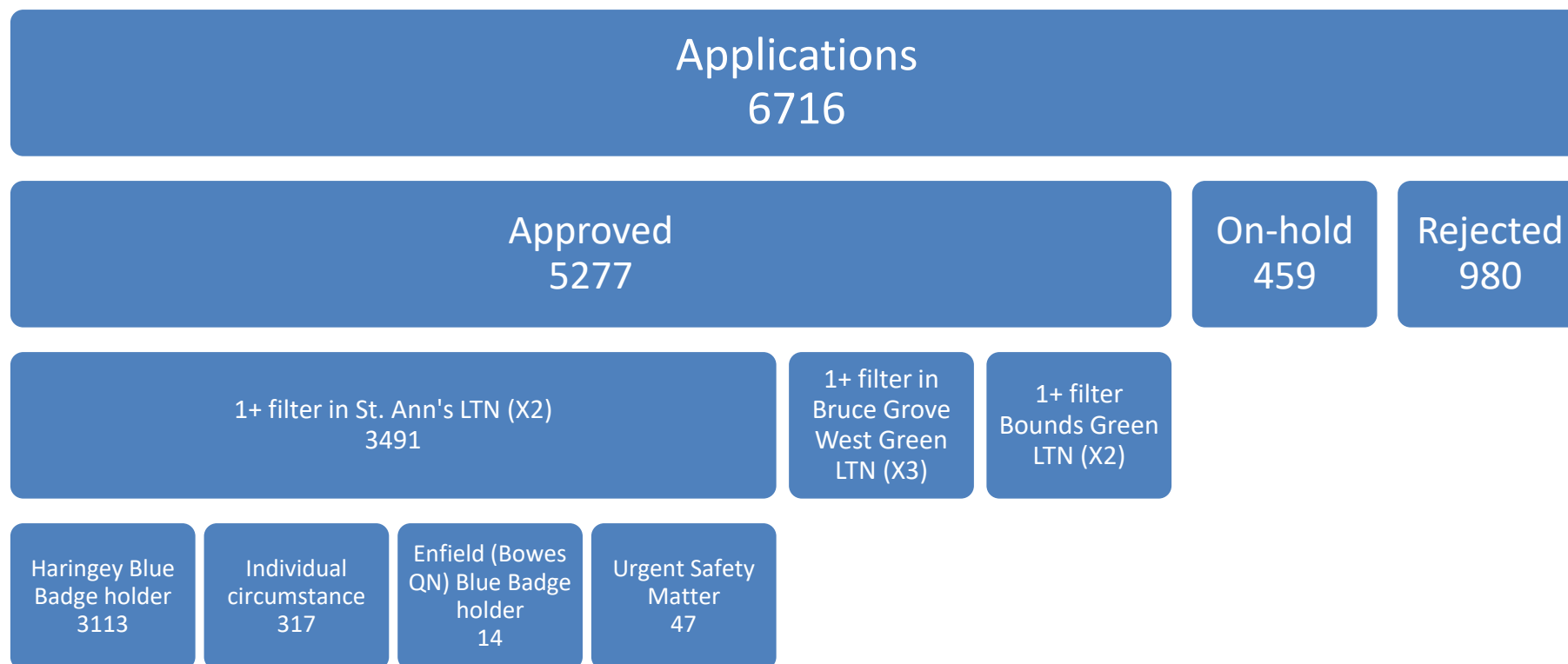
Table 31: Exemption Coverage

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 know 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 St Ann's LTN, for the period between the LTN launch and 1 October 2024.

Graph 15: Exemptions Breakdown

Applications 6716		

Approved 5277	On-hold 459	Rejected 980

1+ filter in St. Ann's LTN (X2) 3491	1+ filter in Bruce Grove West Green LTN (X3)	1+ filter Bounds Green LTN (X2)

Haringey Blue Badge holder 3113	Individual circumstance 317	Enfield (Bowes QN) Blue Badge holder 14	Urgent Safety Matter 47

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
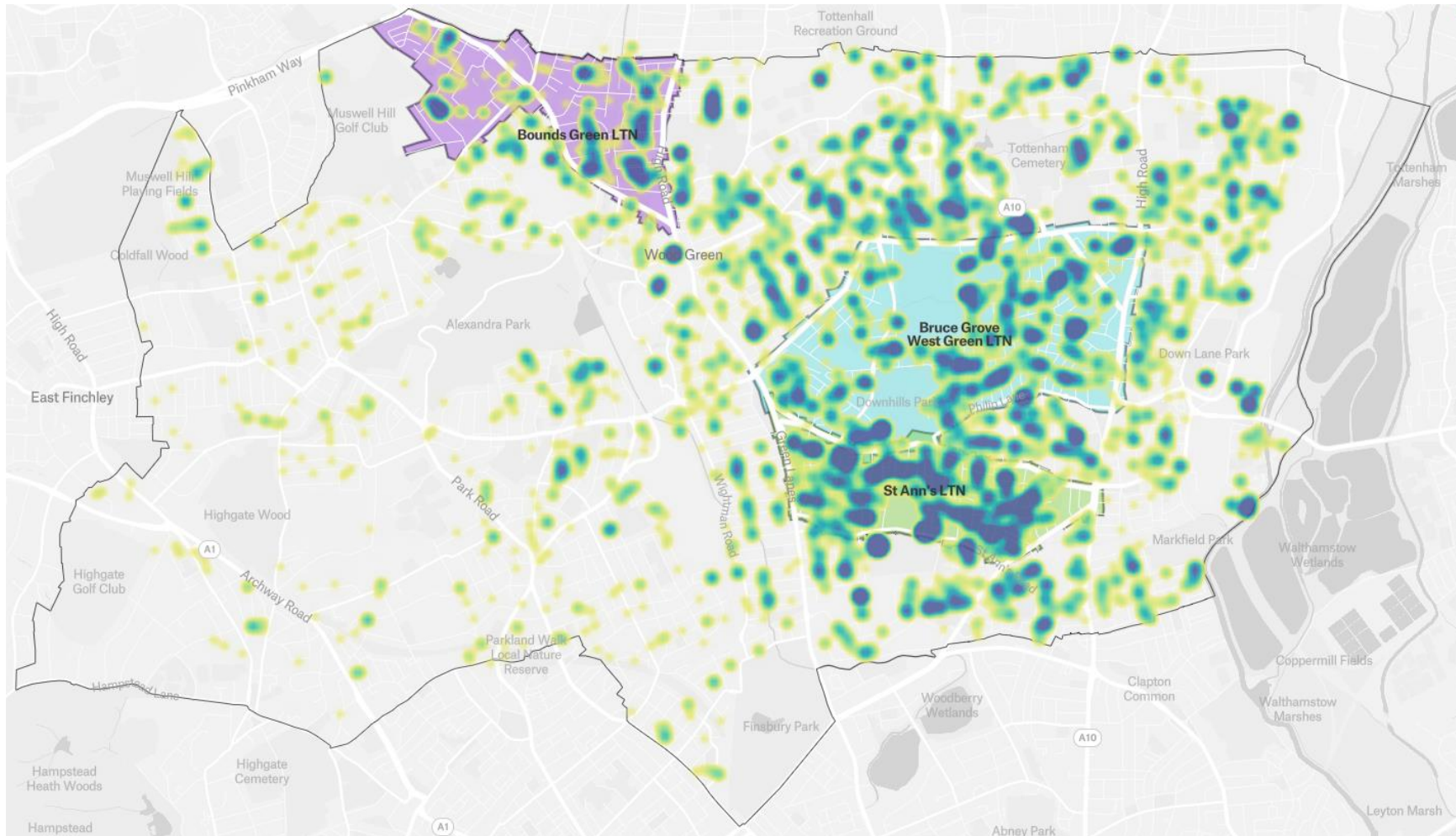
Insights: Exemptions

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' (9%) 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 St Ann's 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 St Ann's boundary and internal roads.

Table 32: Key Takeaways in the St Ann's LTN

Pre LTN vs Post LTN-Now (Nov 2021 vs. Nov 2023)		
Vehicle Classification	**Boundary Roads**	**Internal Roads**
Motorised Vehicles (volume, normalised)	+7,840 vehicles (+5%)	-35,834 vehicles (-57%)
HGVs (volume, normalised)	+2,306 HGVs (+53%)	-588 HGVs (-43%)
LGVs (volume, normalised)	+2,326 LGVs (+23% LGVs)	-515 LGVs (-14%)
Motorcycles (volume, normalised)	+1,708 motorcycles (+24%)	+146 motorcycles (+4%)
Cycles (volume, observed)	-930 cycles (-18%)	-597 cycles (-16%)
Speeding (normalised)	+0.7mph (+4%)	0.1mph (0%)

The LTN trial has successfully reduced motorised vehicle volumes within the scheme area. Between November 2021 (Pre LTN) and November 2023 (Post LTN-Now), internal roads experienced a 57% decrease in traffic, with 34 of the 48 monitored sites showing reductions, particularly in north-south links with new modal filters. Boundary roads saw a 5% increase in traffic, with notable rises on West Green Road and other key routes.

Findings reveal a significant decrease in goods vehicle volumes on internal roads during weekdays, with LGV and HGVs volumes decreasing by 14% and 43% respectively. Despite this, the proportion of LGVs and HGVs relative to motorised traffic on internal roads has increased slightly, suggesting less flexibility for routing choices for LGVs due to delivery needs within the scheme area. On boundary roads, 2,326 additional LGVs and 2,306 additional HGVs were recorded in November 2023 (Post LTN-Now) than in November 2021 (Pre LTN), equating to a 23% LGV increase and a 53% HGV increase, or an increase in 1 percentage point for each vehicle type.

Motorcycle flows in St Ann's do not align with the broader trends observed in overall motorised vehicle traffic following the implementation of the scheme. While internal roads have generally seen a decrease in motor vehicle traffic, motorcycle volumes have

increased by 4% (+146 motorcycles) between November 2021 and November 2023. This increase is primarily driven by specific sites such as Avenue Road, but it is noted that some internal roads like Woodlands Park Road and La Rose Lane experienced significant reductions in motorcycle traffic. On boundary roads, motorcycle flows increased by 24%, with an increase of 1,708 motorcycles, whereby most boundary sites reported increases. Motorcycles exhibit a higher degree of prevalence, thereby suggesting a higher degree of non-compliance, which indicates the need for further monitoring.

There has been a slight decrease in national cycling levels during the study period, although it must first be noted that the rainfall levels in the Post LTN-Now period (November 2023) were considerably higher than those in the Pre LTN period (November 2021), which almost certainly resulted in lower cycling flows than would otherwise have been seen. Within the scheme area, cycling levels have decreased by 16% on internal roads and by 18% on boundary roads, equating to a reduction of 597 and 930 cycles respectively. Internal roads saw significant decreases on La Rose Lane, Avenue Road, and Woodlands Park Road. However, Glenwood Road and a few others experienced notable increases. This is primarily driven by decreases on B152 St Ann's Road, though some sections of A504 West Green Road saw increases. Reasons for these changes are unclear but are expectedly due to the significantly higher rainfall in the Post LTN-Now data collection period as compared to that in the month of the Pre LTN counts. The volume of dockless bikes traveling within the scheme area has also seen a significant increase since they were introduced.

Overall, the changes in vehicle speed metrics are within a minimal range of ±10%, suggesting stability in speed patterns. Internal roads saw an increase in average speeds of 0.1mph and a 3% rise in the 85th percentile speed and the percentage of speeding vehicles, with notable increases on Ascot Road and La Rose Lane. Conversely, some roads like Harringay Road and Clarendon Road experienced significant decreases in average speed. Boundary roads exhibited a modest increase in average speeds by 0.7mph and a 2% rise in the 85th percentile speed, with a slight 1% decrease in the percentage of speeding vehicles. Specific sites such as B152 St. Ann's Road showed significant increases in average speed, while A504 West Green Road saw notable decreases.

The scheme has varied impacts on bus journey times across different corridors. This indicates that further analysis may be needed to optimise bus journey times.

With relation to wider safety and economic impacts of the LTNs, road collision, crime patterns, footfall, and card spend have been analysed. Findings indicate that 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 St Ann's LTN area have been impacted by the introduction of the LTN scheme. Furthermore, the footfall analysis has indicated that footfall has generally increased since the implementation of the LTNs, but it is noted that this may not have been caused directly by the LTNs. Finally, despite a drop in card spend observed in early 2024, Post LTN card spend has generally been similar to or higher than Pre LTN levels. However,

no causal relationship between the introduction of the LTNs and the instore card spend can be made. 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 St. Ann's 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: St. Ann's Traffic Count Locations and Type

Haringey-commissioned traffic count sites and type

Site	Latitude	Longitude	Site Type
A503 Seven Sisters Rd (@Gourley Street)	51.580202	-0.078885	Video
A504 West Green Road (@Bedford Road/Lawrence Road)	51.585258	-0.080068	ATC
A504 West Green Road (@Carlingford Road)	51.58687	-0.096709	ATC
A504 West Green Road (@Etherley Road)	51.586062	-0.091819	ATC
A504 West Green Road (@Suffield Road)	51.58398	-0.073358	ATC
Abbotsford Avenue	51.585916	-0.090289	ATC
Alexandra Road (@North Grove)	51.583186	-0.085942	ATC
Alfoxton Avenue	51.587737	-0.100544	ATC
Ascot Road	51.581717	-0.087464	ATC
Avenue Road (#41/Newsam Avenue)	51.582923	-0.084601	ATC
Avenue Road (#95/Ida Road)	51.584459	-0.084331	ATC
Avondale Road	51.583051	-0.096613	ATC
B152 Colina Road	51.583848	-0.099521	ATC
B152 Harringay Road	51.583791	-0.098383	ATC
B152 St. Ann's Road (@Chestnuts Park)	51.58156	-0.090144	ATC
B152 St. Ann's Road (@Hermitage Road/Cornwall Road)	51.581155	-0.08678	ATC
B152 St. Ann's Road (@Rowley Road/La Rose Lane)	51.581473	-0.092387	ATC
B152 St. Ann's Road (@Salisbury Road)	51.58161	-0.096965	ATC
B152 St. Ann's Road (@Suffolk Road)	51.580396	-0.082794	ATC
Brampton Road	51.582466	-0.094368	ATC
Breamar Road	51.583353	-0.079191	ATC
Cissbury Road	51.581183	-0.083074	ATC
Clarence Road	51.584171	-0.088596	ATC
Clarendon Road	51.584883	-0.095415	ATC
Clinton Road	51.584385	-0.088593	ATC
Colina Mews	51.584705	-0.098784	ATC

Conway Road (@Avondale Road/Woodlands Park Road)	51.583676	-0.095857	ATC
Conway Road (@Rowley Road/Ritches Road)	51.583068	-0.093076	ATC
Cornwall Road (#47/West Green Road)	51.585705	-0.087082	ATC
Cornwall Road (@Penrith Road)	51.582752	-0.087491	ATC
Cranleigh Road	51.583654	-0.092029	ATC
Culvert Road	51.581213	-0.079417	ATC
Dagmar Road	51.584563	-0.087464	ATC
Elmar Road	51.584735	-0.081683	ATC
Etherley Road	51.585147	-0.091638	ATC
Falmer Road	51.583698	-0.087526	ATC
Glenwood Road	51.582568	-0.098093	ATC
Gorleston Road	51.583688	-0.086536	ATC
Greenfield Road	51.581545	-0.076544	ATC
Harringay Road (#67)	51.584402	-0.098235	ATC
Harringay Road (#68)	51.586297	-0.098519	ATC
Ida Road	51.584184	-0.084884	ATC
La Rose Lane (#31)	51.585314	-0.089483	ATC
La Rose Lane (@Chestnuts Park)	51.581958	-0.091572	ATC
North Grove	51.58222	-0.085895	ATC
Oulton Road	51.58238	-0.082972	ATC
Park Road	51.585066	-0.099925	ATC
Penrith Road	51.582601	-0.086241	ATC
Ritches Road	51.582962	-0.093502	ATC
Roslyn Road	51.583052	-0.079836	ATC
Rowley Road	51.581931	-0.092836	ATC
Salisbury Road	51.581567	-0.097814	ATC
Seaford Road	51.583912	-0.081076	ATC
South Grove	51.581277	-0.083709	ATC
St Margaret's Avenue	51.587058	-0.099384	ATC
Stanley Road	51.585781	-0.097446	ATC

Station Crescent	51.585574	-0.088058	ATC
Suffield Road	51.583622	-0.073607	ATC
Terront Road	51.585542	-0.092667	ATC
Westerfield Road	51.583317	-0.074491	ATC
Woodlands Park Road (#16/Clarendon Road)	51.584747	-0.0941	ATC
Woodlands Park Road (#87/Avondale Road)	51.582364	-0.09578	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 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 baseline 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 'baseline' 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, 12 of which were within the bounds of the St. Ann's scheme.

The air quality monitoring sites in the St. Ann's 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.

St. Ann's LTN air quality monitoring sites type and period of installation (all diffusion tubes)

Location	Postcode	Defra Classification
St. John Vianney Roman Catholic Primary School	N15 3HB	Urban Background
26 Clarendon Road, Harringay Ladder	N15 3JX	Urban Background
West Green Primary School, Woodlands Park Road	N15 3RH	Urban Background
Woodlands Park Nursery School, 74-76 Woodlands Park Road	N15 3SD	Urban Background
Chestnuts Primary School, La Rose Lane (formerly Black Boy Lane)	N15 3AR	Urban Background
114 Cornwall Road	N15 5AU	Urban Background
St. Ann's CE Primary School, Avenue Road	N15 5JG	Urban Background
Seven Sisters Primary School, Edgecot Grove	N15 5HD	Urban Background
20 Suffield Road	N15 5JX	Urban Background

Location	Postcode	Defra Classification
St. Ann's Hospital, St. Ann's Road	N15 5BN	Roadside
The Green Dental Surgery, 200 West Green Road	N15 5AG	Roadside
730 Seven Sisters Road	N15 5NH	Roadside

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://www.haringey.gov.uk/sites/haringeygovuk/files/air_quality_annual_status_report_for_2021.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 7,000 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).