London Borough of Lambeth:
# Oval LTN Monitoring Stage 2 Report

SYSTRA

Executive Summary

Executive Summary (1)

- This monitoring report presents data reviewing the impact of the Oval to Stockwell Triangle Low Traffic Neighbourhood (Oval LTN) on local traffic flows, with count sites spread across the inside of the LTN as well as on its boundary roads.

- For analysis, count sites have been classed as "internal" or "external", as represented on the map to the right. Of the 27 total sites, **12 sites were internal (blue)** and **3 were external (red)**.

SYSTRA
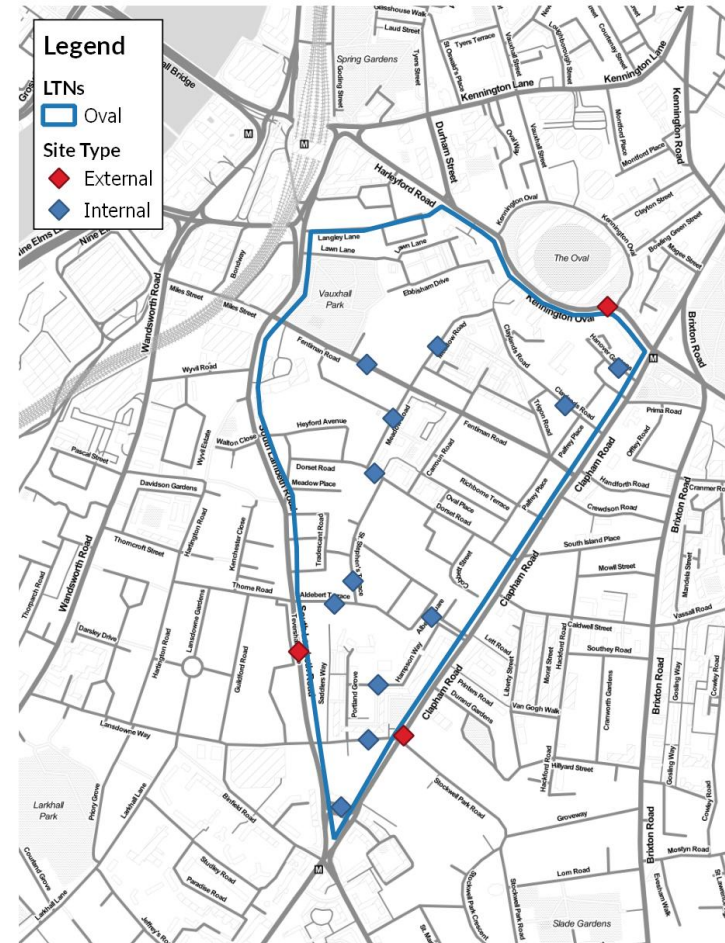
Executive Summary (2)

- As pre-implementation data was sourced from studies taking place across several years, and post-implementation data was collected during 2020-2021 (a time of significant fluctuation in general traffic flows), a normalisation adjustment has been made to ensure a fairer comparison of pre- and post-implementation data.

- For the Oval LTN, the average adjustment to vehicle flows is -20% (i.e. 80% of pre-COVID flows), which is more conservative than a direct comparison of pre- and post-implementation flows.

- The following impacts have been observed between normalised pre-COVID data and data from April 2021:

  - The **total volume of motor vehicles** counted on **internal streets** has **decreased** by around **-25%**, and by **-2%** on **external streets**, for an **overall decrease of -8%.** This equates to **>5,800 fewer vehicles counted.**

  - **Data for external streets cannot be further disaggregated due to data source, but for internal streets, car traffic decreased by -29%,** whilst **LGV** flows **increased by +11%, HGVs** by **+29%** and **motorcycles** by **+25% -** although these increases are all from **small base sizes.**

  - **For locations where they could be measured, cycle volumes increased** by **+87% overall.**

SYSTRA

Executive Summary (3)

- The total number of motor vehicles (cars, light goods vehicles, heavy goods vehicles and motorcycles) and cycles recorded on internal and external roads (for pre- and post-implementation) are provided below. Details of further data (collected in December 2020) are provided within the main report.

	All Motor Vehicles				Cycles			
	Pre	Post – April 2021	Change	% Change April 2021	Pre	Post – April 2021	Change	% Change April 2021
Internal	18,978	14,176	-4,801	-25%	2,473	4,626	2,153	+87%
External	54,910	53,842	-1,068	-2%	Data Not Available*			
All Counts	**73,888**	**68,019**	**-5,869**	**-8%**	**2,473**	**4,626**	**2,153**	**+87%**

*All peripheral roads use data sources which aggregate vehicle classes, and do not capture cycles.

SYSTRA

Scheme Introduction

Oval LTN Background

- The Oval to Stockwell Triangle Low Traffic Neighbourhood (Oval LTN) occupies the triangle-shaped area between Vauxhall, Oval and Stockwell Underground stations, and is bounded by the A3/Clapham Road to the southeast, South Lambeth Road to the west and A202/Harleyford Road to the northeast.

- The LTN is centred around Quietway 5, which traverses the area along Meadow Road, Bolney Street and St. Stephen's Terrace. The main objective of the LTN is to limit possible east-west through traffic between Clapham Road and South Lambeth Road.

- Seven modal filters were introduced to form the Oval Low Traffic Neighbourhood, most of which restrict vehicular traffic turning onto/off of the A3.

- During stage 2 only, a **temporary** banned right turn was in place for movements from Clapham Road southbound onto Stockwell Terrace.
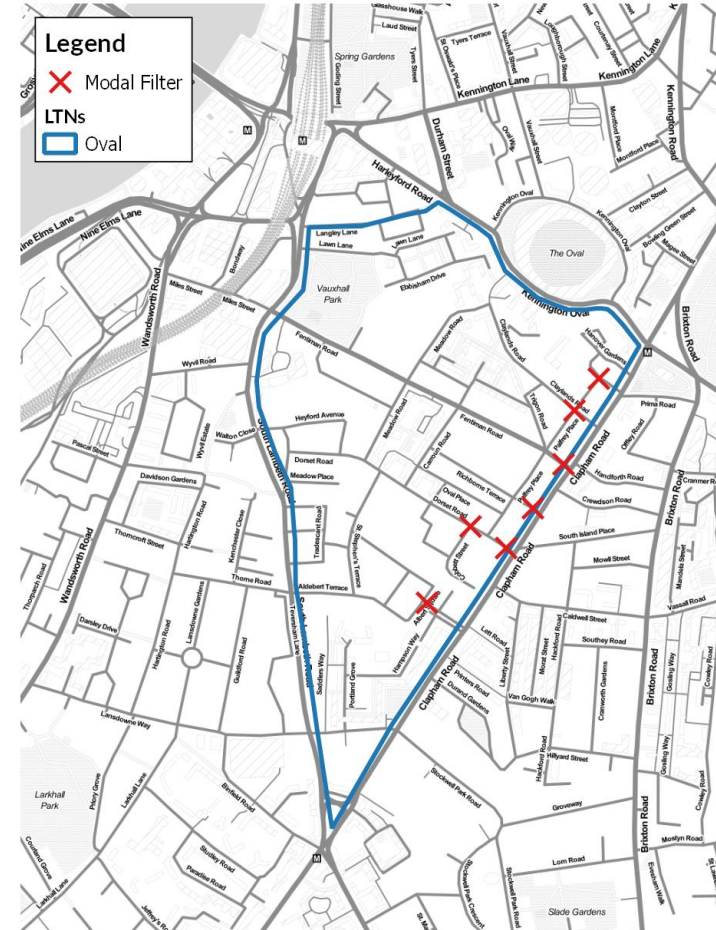
Monitoring Study

Scheme Background

- LB Lambeth implemented a number of measures as part of its emergency COVID-19 transport response. These included Low Traffic Neighbourhoods (LTNs), in accordance with national and regional guidance. In the <u>short term</u>, these measures were intended to:
  - Assist residents in **social distancing**
  - Enable **essential journeys** to be made safely

- Now, over the <u>longer term</u>, the introduction of the Lambeth LTNs aims to promote a wider change away from motor vehicle use towards active travel (walking and cycling) and public transport, improving air quality and safety, and reducing greenhouse gas emissions in line with the Lambeth Transport Strategy 2019

- These measures have been implemented as trials under Experimental Traffic Orders (ETOs), with data collection and analysis completed to inform future decisions about their permanence.
- This data collection and analysis will form the basis of the **monitoring study.**

STREETSPACE
FOR LONDON

Source: TfL

SYSTRA

Monitoring Programme

- SYSTRA are leading the traffic monitoring programme for LB Lambeth's new Low Traffic Neighbourhoods to understand the effectiveness of the schemes at reducing vehicular traffic flows, with data collection completed by survey company MHTC.

- Across the Borough, data has been collected at a large number of individual points using mostly Automatic Traffic Counters (ATCs) (and occasionally radar surveys) for a full seven-day week, providing flows and speeds by vehicle type. This has then been **compared to historic data** from those sites or a suitable proxy site to **understand the impact of the LTNs** on different modes during different time periods.

- Monitoring for the LTNs will be completed over three stages:

  - **Stage 1:** Initial adjustment (September 2020)

  - **Stage 2:** Settling down (April 2021) - *current stage*

  - **Stage 3:** Regular use (if scheme unsuccessful at stage 2)

- For qualitative feedback from residents, LB Lambeth is also running a separate Commonplace consultation.

- Further independent air quality modelling is also being conducted.

SYSTRA

Data Collection

- For this Oval LTN Stage 2 report, data was collected at 15 sites, which have been classed as "internal" or "external", as represented on the map to the right.

- Of the 15 total sites, **12 sites were internal (blue)** and **3 were external (red)**. Three of the external count sites were on direct boundary roads (Clapham Road, South Lambeth Road and Harleyford Road), whilst the remainder picked up flows on a range of other roads in the area.

- Details for individual sites and their locations can be found in **Appendix C.**
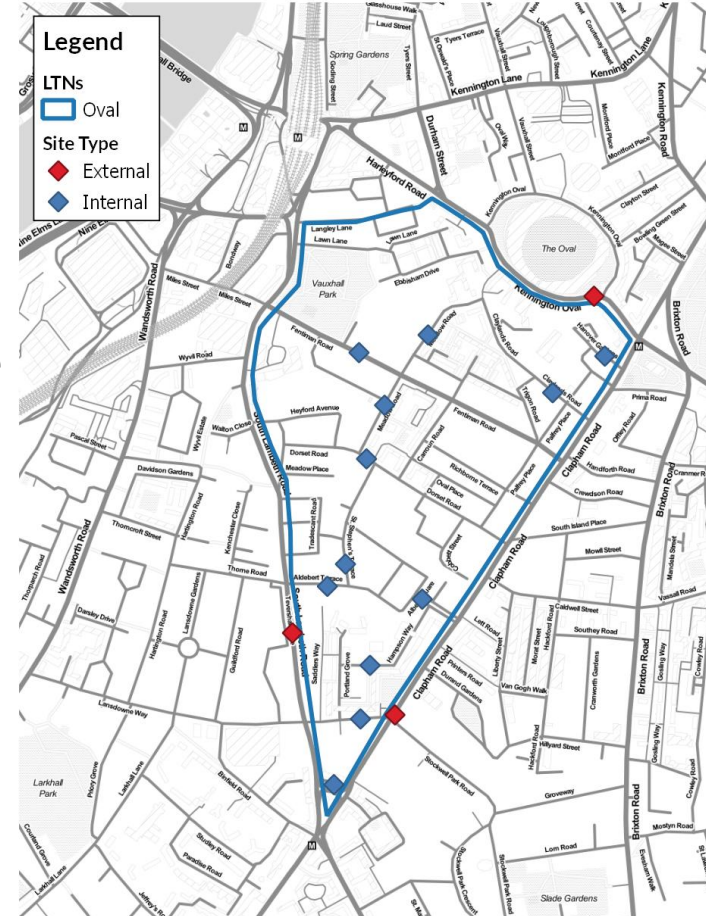
Data Collection

- As the LTN was introduced as a response to COVID-19, no comprehensive dataset existed to represent pre-implementation data. Instead, data was drawn from the following studies commissioned by LB Lambeth since 2017:

    - *Healthy Routes: two rounds of data collection to support development of Healthy Cycling Routes (Nov 2019-Mar 2020) – only used to support The Floow for the Oval LTN*

    - **20mph Study**: data collected to underpin analysis on the 20mph Borough-wide speed limit (Jan 2017)

    - **TSS Study:** further general data collection specific to the Oval area (May 2019)

    - **The Floow**: GPS telemetry data, providing detail on vehicle routing through neighbourhood cells; this data will be used alongside Healthy Routes data for roads where no historic data was collected to approximate vehicle flows

- Of the ATC sites, **5** sites use the TSS study, **1** site uses the 20mph study and **7** utilise both The Floow data and Healthy Routes. A further **2** sites use data directly from TfL ATCs.
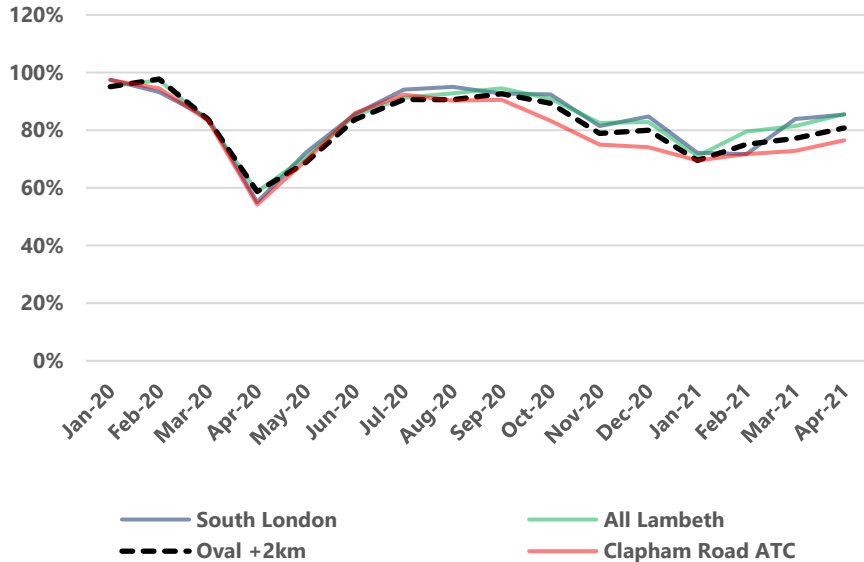

Legend

LTNs
- Oval

Study Type
- 20mph
- The Floow
- TSS
- TfL ATC

SYSTRA
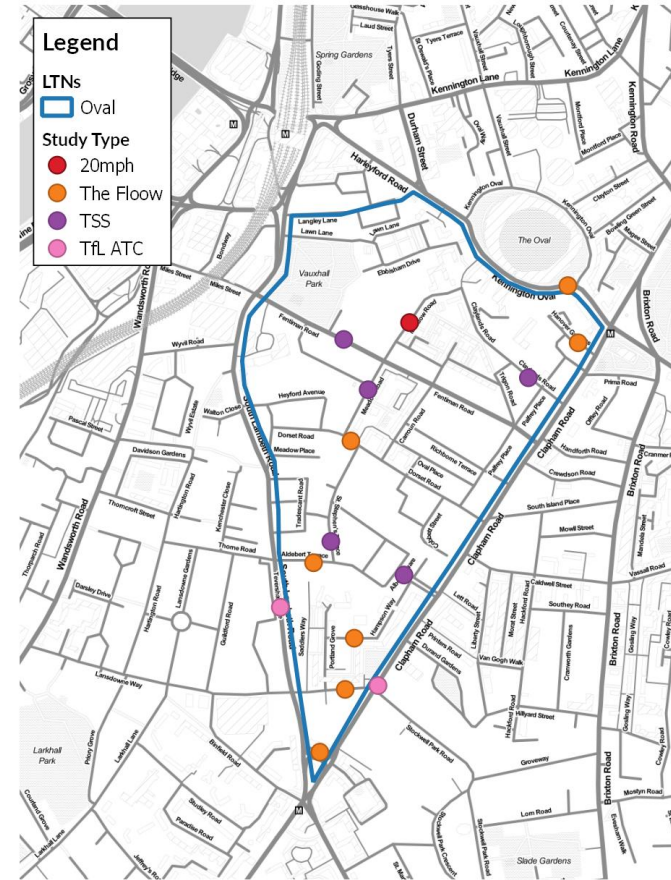
COVID-19 Impacts
on traffic flows

Impact of COVID-19 on vehicular traffic

- Since the onset of the pandemic, people's travel behaviour has changed significantly, with the majority making far fewer trips, particularly during national lockdowns. This has led to reductions in vehicle traffic throughout the country. Therefore in analysing the data collected, it will be important to consider these impacts. The chart below compares traffic across Lambeth, within 2km of the Oval LTN and the closest count site (Clapham Road), to volumes in January 2017, according to continuous Automated Traffic Counter (ATC) counts collected by TfL.

Difference in Traffic Volume vs. Jan-19

(Chart: line graph with y-axis from 0% to 120% and x-axis months Jan-20 through Apr-21. Series: South London, All Lambeth, Oval +2km, Clapham Road ATC)

Legend:
- South London
- Oval +2km
- All Lambeth
- Clapham Road ATC

- Traffic has been consistently lower than pre-pandemic, with particularly pronounced drops during lockdowns. To account for this a process of normalisation has been applied to all data collected.

- The normalisation process adjusts the data collected to the month when the most recent data was recorded (i.e. April 2021), and can therefore represent "what would be expected without the LTN" so all data can be compared on a like-for-like basis.

- Further detail on the normalisation process is provided in **Appendix C**. All car, LGV and HGV volumes have been normalised in the same manner.

SYSTRA

Impact of COVID-19 on cycle flows

- As with motor traffic volumes, the number of people cycling has also been affected by the pandemic. The Department for Transport's Road Traffic Statistics estimate a 38% increase in cycling in London in 2020, relative to the average for 2017-2019. Other estimates include:

  - a 35% increase in London from 2019 to 2020 among Strava users;

  - a 7% increase in Inner London and a 22% increase in Outer London from 2019 to 2020 as measured by the company Eco-Counter.

- The chart below shows the volume of cycle trips compared to a pre-COVID, March baseline across England[1]. A large increase is shown in 2020, although levels appear to have reverted to below or similar to pre-COVID levels in the latter part of the year and 2021. This will partly be related to the weather, given the comparison to March.

Cycle Volumes in England Compared to National March Baseline
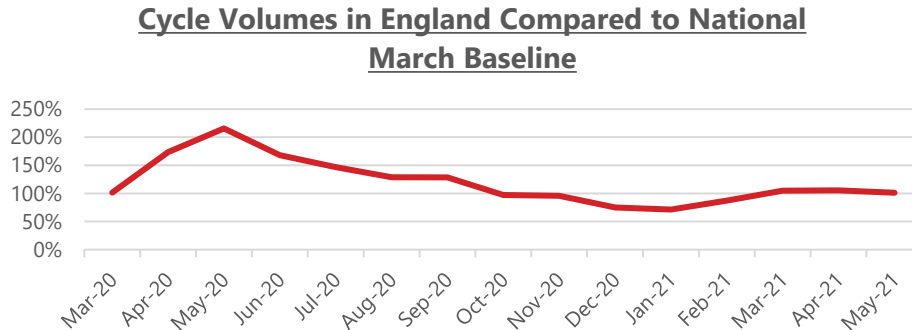
- Unlike for motor vehicles, a continuous data set does not exist that is sufficiently comparable to cycling in Lambeth to allow for normalisation of cycle trips. Therefore such a process has not been completed, so changes in cycle flows observed should be considered in the context of the changes described.

SYSTRA

Pre-Implementation Flows

Pre-Implementation Flows

- Pre-implementation flow data was drawn from a range of studies which took place between 2017 and early 2020. These are presented to the right. All data has been normalised using background flow data from ATCs within 2km of the LTN – **this process has been outlined in detail in Appendix B.**

- Cycle flow data has not been normalised, reflecting the absence of an appropriate data set with which to perform this process. Similarly, motorcycle flow data shown in the appendices has also not been normalised, as the impact of COVID-19 on motorcycles is likely to have been significantly different to that of general traffic, due to the changes in factors such as take-away food deliveries. However, a historic dataset for these alone is not available.
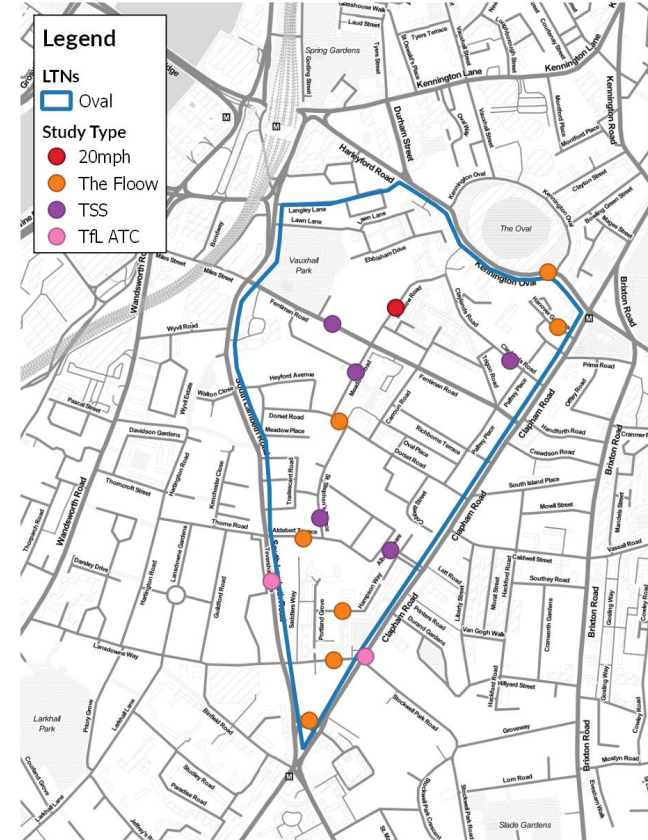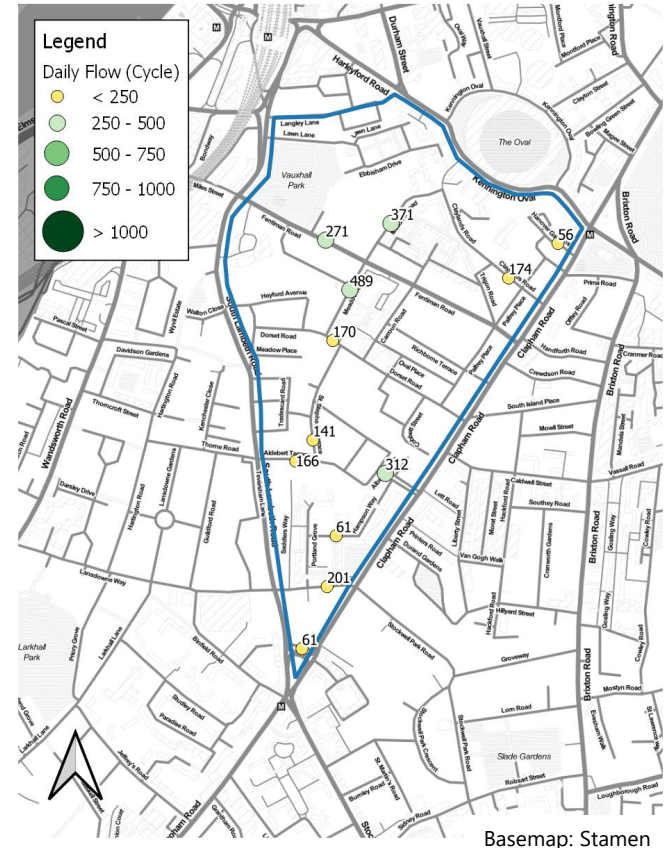
Pre-Implementation Flows – Cars

- As previously outlined, calculated **pre-implementation flows** are those that would be projected based on background TfL data.

- Daily pre-implementation flows are presented in the map to the right, showing the general trend of traffic within and surrounding the Oval LTN.

- In general, such flows within the LTN are below 2,000 vehicles per day, with a few exceptions where flows are slightly higher such as Fentiman Road, Albert Square and Lansdowne Way.

- The highest flows are recorded on peripheral roads such as Harleyford Street (19,861 vehicles per day) Clapham Road (19,115 vehicles per day) and South Lambeth Road (15,934 vehicles per day). It should be noted that for all these roads, **data sources do not distinguish between cars and motor vehicles.**

Basemap: Stamen

SYSTRA
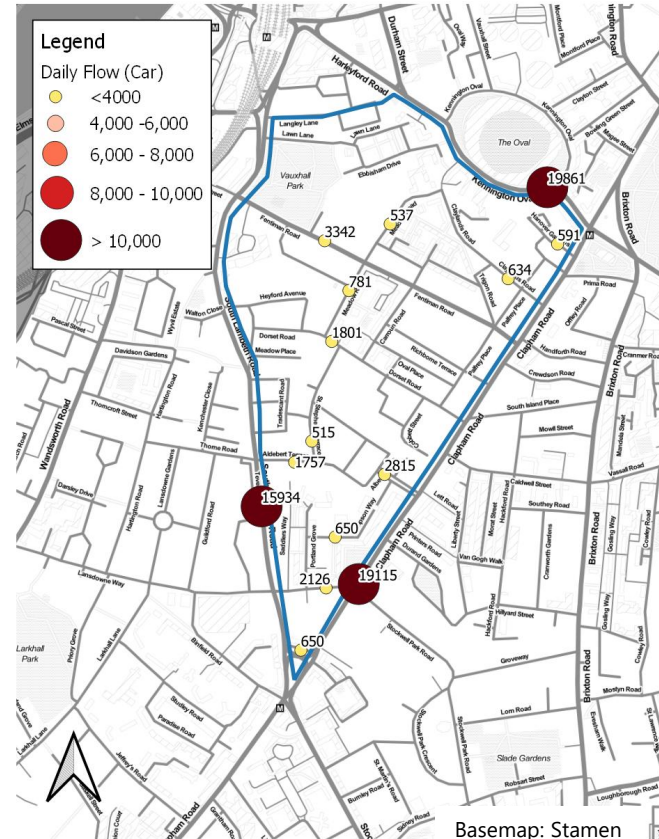
Pre-Implementation Flows – Cycles

- As cycle travel does not follow the same patterns as car usage and varies significantly based on local conditions, cycle flows have not been normalised. The map to the right shows daily flows.

- Cycle flows are generally low within the LTN, with direct routes and access points to Clapham Road and Fentiman Road recording the highest flows. Flows along sections of Quietway 5 (Meadow Road in particular) show slightly higher levels of cycling.

- The TfL ATCs used for counts on South Lambeth Road and Clapham Road do not collect data on cycles, nor does the radar survey on Harleyford Raod. As such, cycle counts are not presented for these locations.

Basemap: Stamen

Pre-Implementation Flows – HGVs

- The map to the right plots **pre-implementation** HGV flows.

- HGV flows on surveyed roads were very low – in many cases below 10 on average. The only locations inside the LTN carrying over 50 daily HGVs per day were Fentiman Road and Lansdowne Way.

- It should be noted that HGV movements are not split out in TfL ATC data on South Lambeth Road and Clapham Road, or in radar data collection on Harleyford Road.

Basemap: Stamen
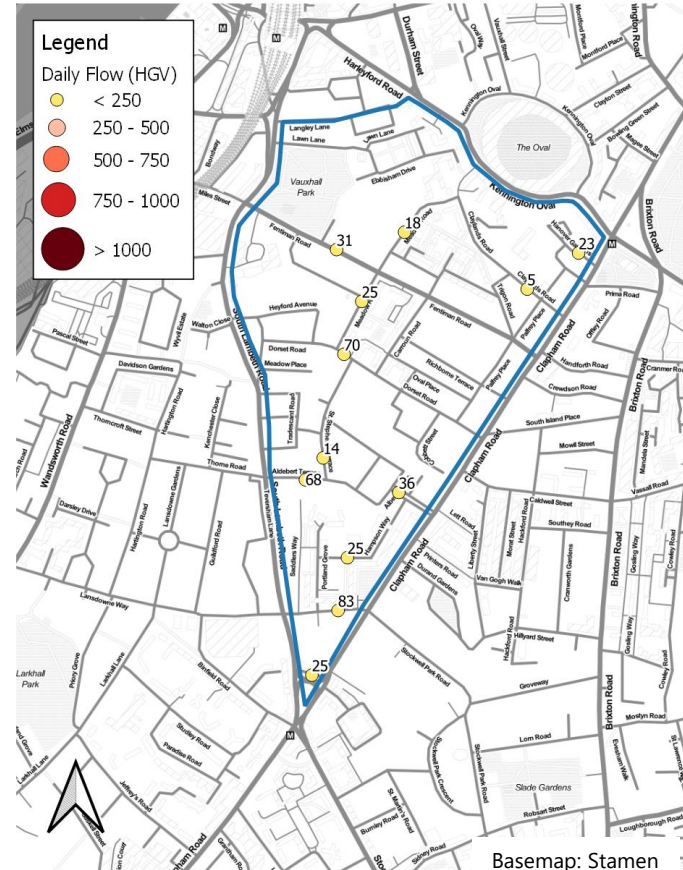
Pre-Implementation Flows – LGVs

- The map to the right plots **pre-implementation** LGV flows.

- In general, LGV flows are higher on roads on the periphery, especially on Harleyford Street (1,280 vehicles per day) and Caldwell Street (514 vehicles per day). There are still some high flows through the LTN, such as on Fentiman Road, where over 15% of vehicles in the peak hour are LGVs.

- It should be noted that LGV movements are not split out in TfL ATC data on South Lambeth Road and Clapham Road, or in radar data collection on Harleyford Road.
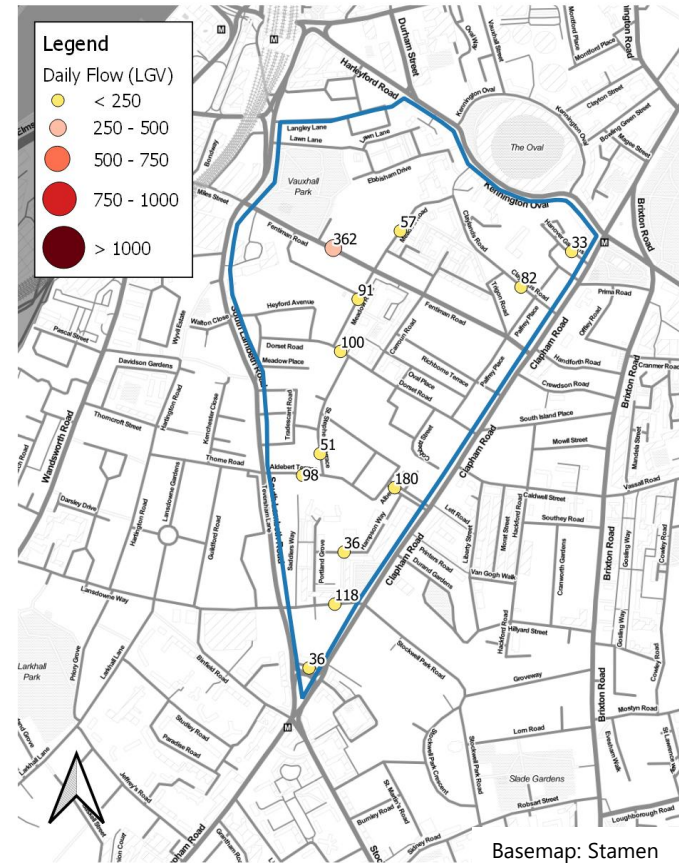
Basemap: Stamen

Pre-Implementation Flows – Motorcycle

- The map to the right plots **pre-implementation** motorcycle flows.

- These are generally low within the LTN, where the highest flow was recorded on Fentiman Road (243 vehicles per day).

- It should be noted that motorcycle movements are not split out in TfL ATC data on South Lambeth Road and Clapham Road, or in radar data collection on Harleyford Road.
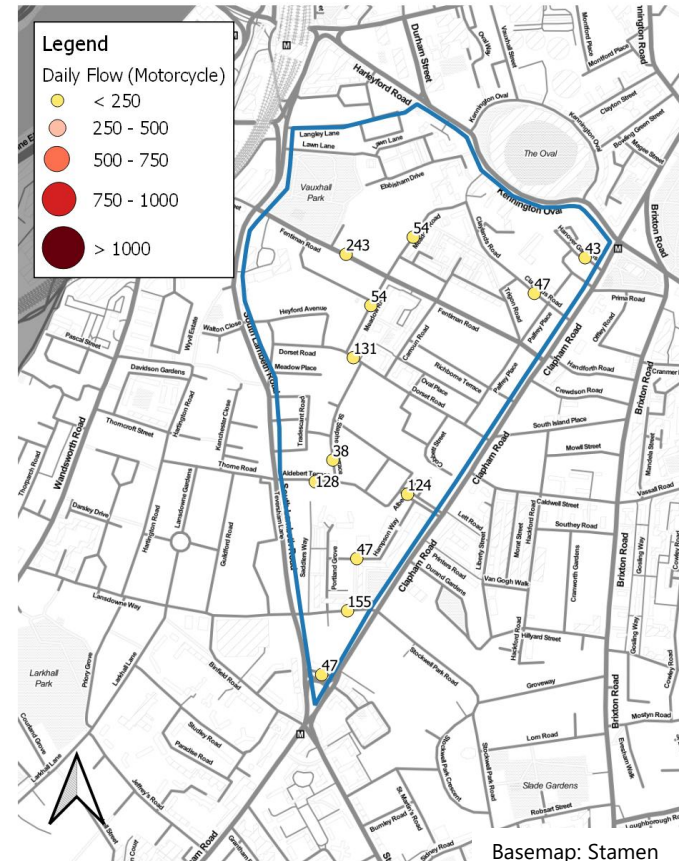

Legend
Daily Flow (Motorcycle)
- < 250
- 250 - 500
- 500 - 750
- 750 - 1000
- > 1000

Basemap: Stamen

Post-Implementation Monitoring
Stage 1/December 2020

Stage 1 Goals

- This first round of monitoring was conducted in December 2020 after modal filters were installed for several months and enforcement of the scheme had begun.

- The goal at this stage of monitoring was to understand initial impacts of the LTN on traffic, so as to identify any opportunities for improvement in the scheme design.

December 2020 Flow Change – Cars

- The map to the right outlines changes in counts of cars compared to those pre-implementation, at sites where data was collected in December 2020. This does not include several sites where data was of poor quality or not collected during this stage.

- Vehicle flows on streets with modal filters naturally decreased, for example on Albert Square where 2,615 fewer daily cars were counted. Cars were also down by 48% on Fentiman Road (-1,583 daily vehicles).

- Flows have increased on St. Stephen's Terrace by 133% (+684 daily vehicles), indicating that local traffic is rerouting from the east (it should be noted that this is still well within limits for safe cycling routes)
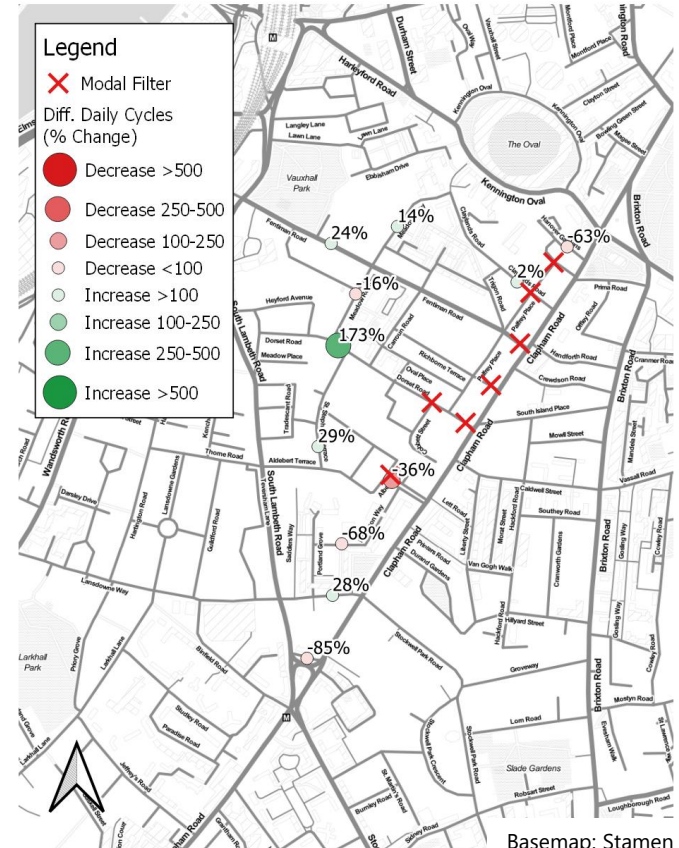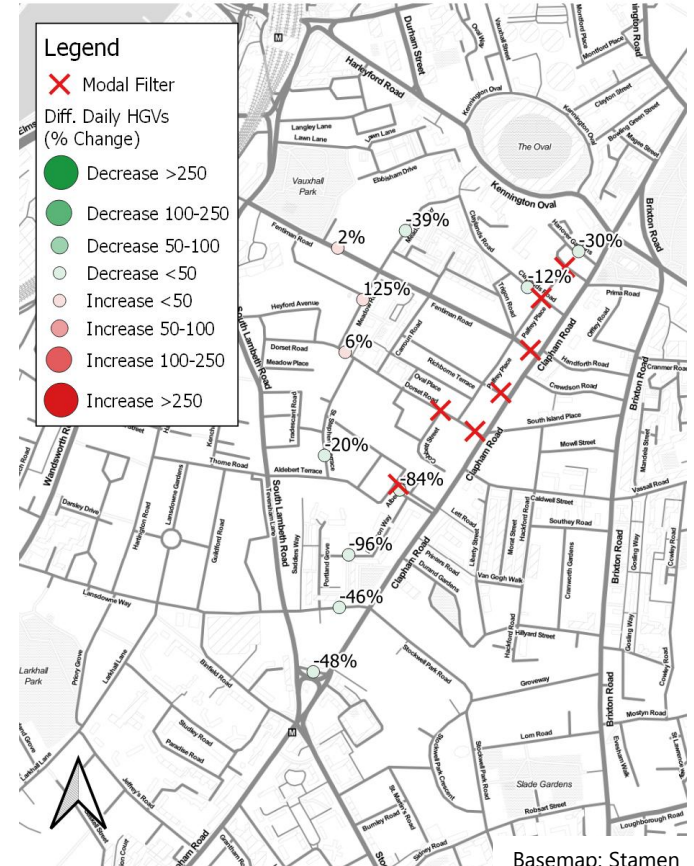
December 2020 Flow Change – Cycles

- The map to the right outlines changes in counts of cycles compared to pre-implementation, at sites where data was collected in December 2020. This does not include several sites where data was of poor quality or not collected during this stage

- Most sites inside the LTN have recorded an increase in cycle flows, especially sites along Quietway 5, and notably Dorset Road (+173%, +294 cycles per day).

- Drops in cycles counted were typically also small changes in raw numbers (i.e. 61 to 9 on Stockwell Terrace).

Legend

✕ Modal Filter

Diff. Daily Cycles (% Change)

🔴 Decrease >500
🔴 Decrease 250-500
🔴 Decrease 100-250
⚪ Decrease <100
⚪ Increase >100
🟢 Increase 100-250
🟢 Increase 250-500
🟢 Increase >500

Basemap: Stamen
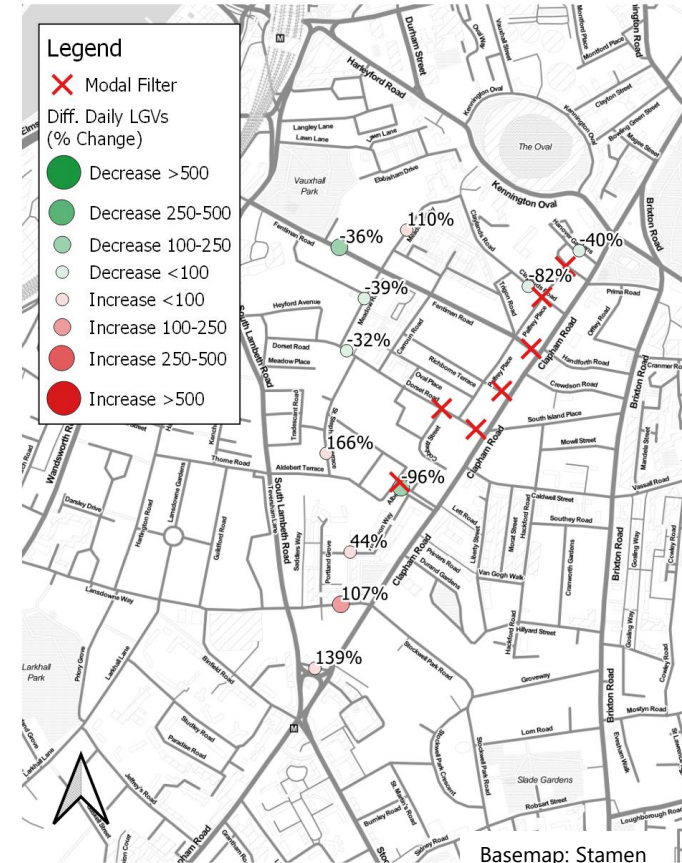
SYSTRA

December 2020 Flow Change– HGVs

- The map to the right outlines changes in counts of HGVs compared to pre-implementation, at sites where data was collected in December 2020. This does not include several sites where data was of poor quality or not collected during this stage.

- HGV flows generally did not change significantly in December 2020; no site saw a change of more than 50 daily vehicles.

- Some locations within the LTN have seen an increase in flows as has happened for cars, such as on Meadow Road South (+125%, +31 vehicles per day).

Legend
× Modal Filter
Diff. Daily HGVs (% Change)
- Decrease >250
- Decrease 100-250
- Decrease 50-100
- Decrease <50
- Increase <50
- Increase 50-100
- Increase 100-250
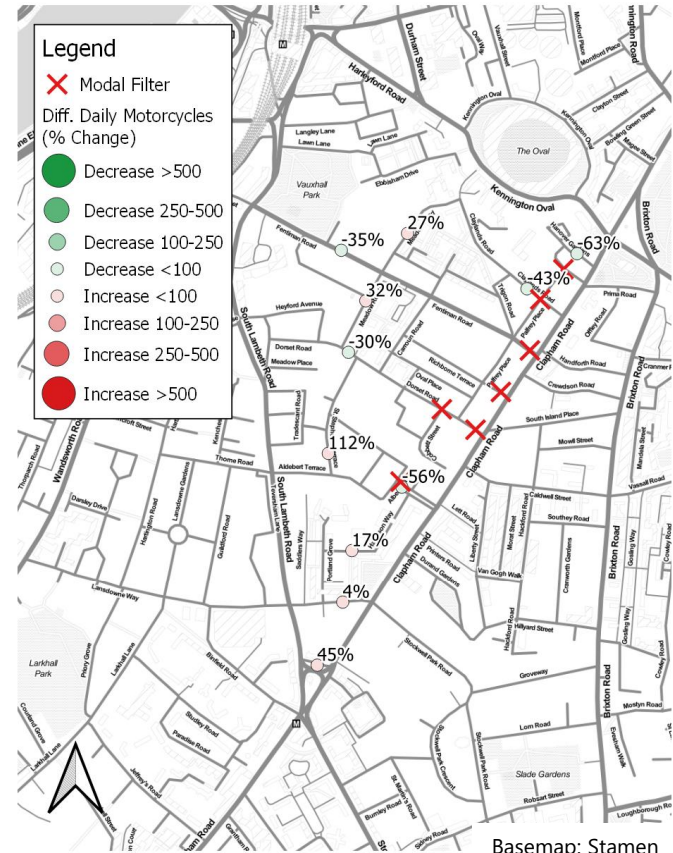- Increase >250

Basemap: Stamen

December 2020 Flow Change– LGVs

- The map to the right outlines changes in counts of LGVs compared to pre-implementation, at sites where data was collected in December 2020. This does not include several sites where data was of poor quality or not collected during this stage.

- Similarly to HGVs, LGV flows generally did not change significantly in December 2020; Albert Square (-173 vehicles), Fentiman Road (-132 vehicles) and Lansdowne Way (+127 vehicles) were the only sites where flows changed more than 100.

Basemap: Stamen

December 2020 Flow Change– Motorcycles

- The map to the right outlines changes in counts of motorcycles compared to pre-implementation, at sites where data was collected in December 2020. This does not include several sites where data was of poor quality or not collected during this stage.

- Changes in motorcycle flows are somewhat mixed, although in no location was there a change of over 100 daily vehicles. Even the 112% increase of motorcycles on St. Stephen's Terrace is the equivalent of 43 more vehicles per day.
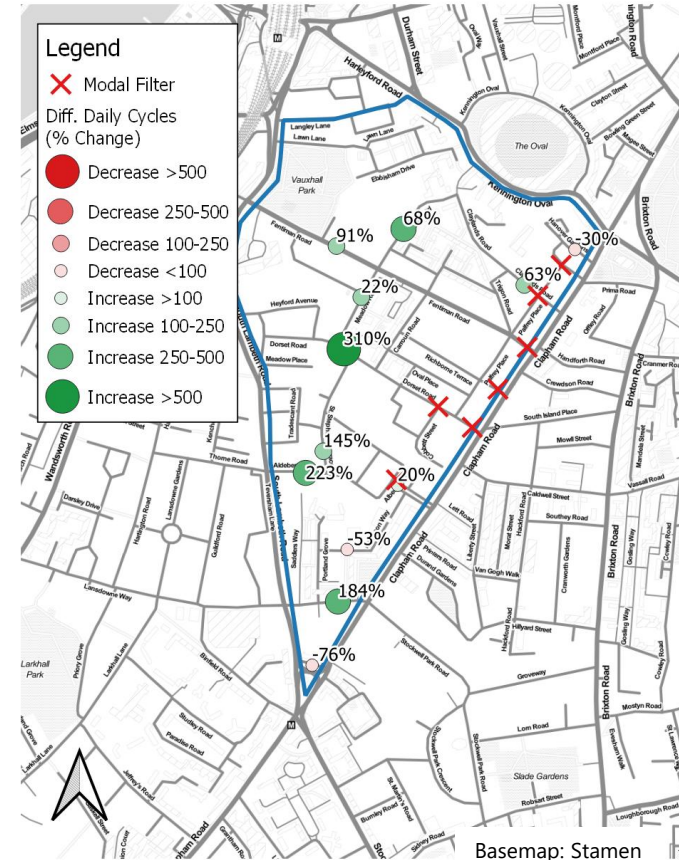

Basemap: Stamen

Post-Implementation Monitoring
Stage 2/April 2021

April 2021 Flow Change – Cars

- The map to the right outlines changes in counts of cars compared to pre-implementation, at sites where data was collected in April 2021.

- Flow patterns are similar to those recorded in December 2020, with vehicular flows dropping on roads with filters (-95% or -2,679 vehicles in Albert Square, for example) but showing small increases elsewhere, for example on Landsowne Way.

- Along Quietway 1, vehicles flows have decreased on some segments (Dorset Road, Aldebert Terrace) and increased on others (St. Stephen's Terrace (+730 daily vehicles), Meadow Road South (+121 daily vehicles) and Meadow Road North (+210 daily vehicles)). Note that these increases are small enough so as not to impact appropriate TfL designation as safe cycle routes.

- Changes on boundary roads appear to be minimal, with the largest being a reduction of ~1,300 vehicles on Clapham Road. Vehicle flows changed minimally on Harleyford Road and increased 3% (+548 daily) on South Lambeth Road.

- The temporary banned right turn has significantly reduced flows on Stockwell Terrace (-74%, -481 daily vehicles).

Basemap: Stamen

SYSTra

# **April 2021** Flow Change – Cycles

- The map to the right outlines changes in cycle counts compared to pre-implementation, at sites where data was collected in April 2021.

- Cycle flows have increased at all but three sites, for an overall increase of 87%, notably during a period where national cycle levels had almost returned to pre-pandemic levels.

- Dorset Road, along Quietway 5, has seen the largest increase – +310%, or 528 average additional cycles per day. Similar increases have been seen on Lansdowne Way (+184%, +369 per day) and Aldebert Terrace (+223%, +370 per day).

- All sites where cycle levels have decreased represent small nominal changes of <50 daily cycles.

Legend

✕ Modal Filter

Diff. Daily Cycles (% Change)

🔴 Decrease >500
🔴 Decrease 250-500
🔴 Decrease 100-250
⚪ Decrease <100
🟢 Increase >100
🟢 Increase 100-250
🟢 Increase 250-500
🟢 Increase >500

Basemap: Stamen

SYSTRA

April 2021– Healthy Cycle Routes

- Healthy Routes are those which have the right conditions to enable more people to walk and cycle. They link people with key destinations, and are convenient, attractive and safe for all.

- For a Healthy Route to be designated as such in Lambeth, it must have certain key characteristics:

  - Fewer than 200 vehicles per hour in the average weekday peak hour.

  - Under 5% of vehicles using the route can be classified as HGVs.

  - Average vehicle speeds must be <20mph.

- The map to the right outlines LB Lambeth's designated Healthy Route, Quietway 1, as it passes through the Oval LTN.


Legend
— Healthy Route
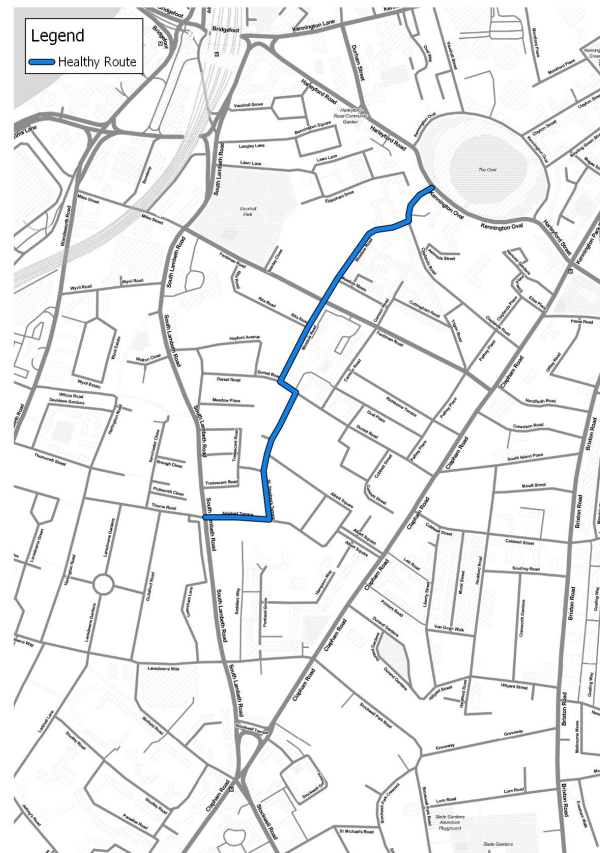
April 2021– Healthy Cycle Routes

- Inside the Oval LTN, evidence from April 2021 suggests that Quietway 1 satisfies LB Lambeth's requirements for a Healthy Route.

- On Albert Square and Claylands Road, HGVs represent more than 5% of traffic; however, total traffic volumes are so small in both locations (<30 average peak hour) that the total number of HGVs (<2 hourly) is negligible regarding potential impact on cyclist and pedestrian safety.

- Similarly, Dorset Road has an HGV percentage slightly over 5% - however, it is considered that a significant portion of HGV traffic here relates to development on the eastern end of Dorset Road and is therefore likely transitory.

- The only link within the LTN not suitable for mixing cycles and cars is Lansdowne Way, which carries over 250 vehicles per hour in the weekly peak.
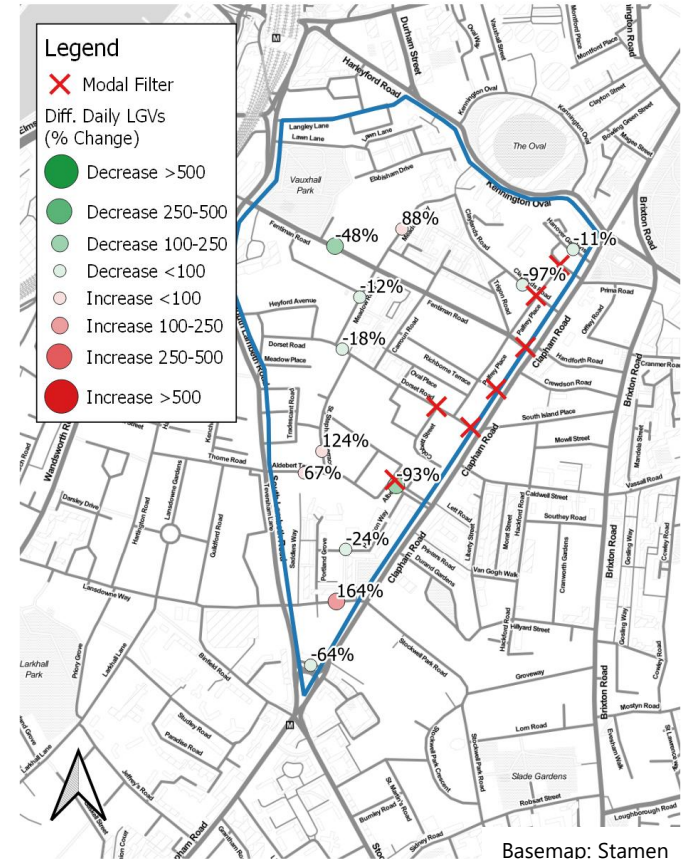
SYSTRA
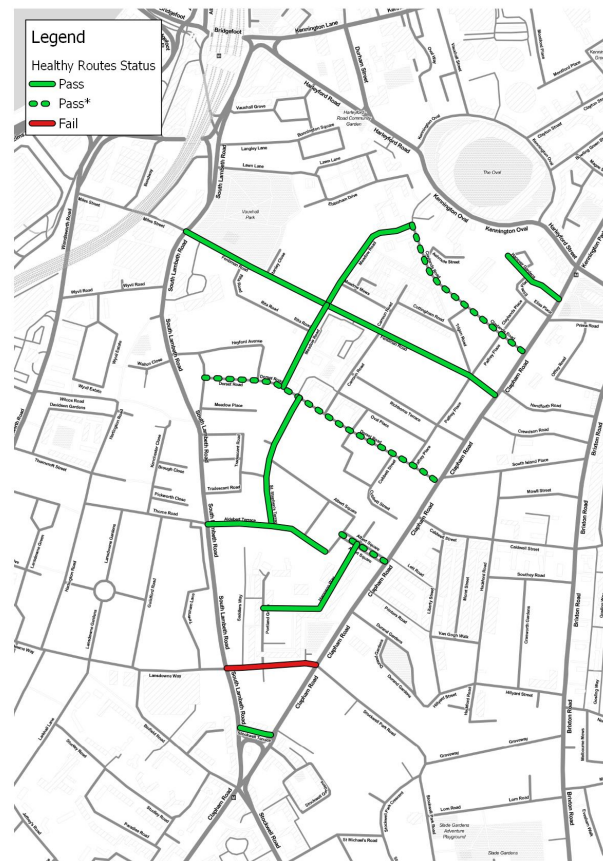
April 2021 Flow Change– HGVs

- The map to the right outlines changes in HGV counts compared to pre-implementation, at sites where data was collected in April 2021.

- HGV flows generally did not change significantly in April 2021; Fentiman Road was the only location seeing a change of over 50 such vehicles (+54 daily).

- Some locations saw large percentage changes in HGV movements – however, these translate into very small differences in actual vehicles counted. This can be seen for the 239% increase on Claylands Road (+13 vehicles) and Meadow Road South (+15 vehicles).

- These numbers have been increased in line with overall traffic flows. However, on a national basis, whilst car traffic was at 84% of pre-COVID levels in April 2021, HGV traffic had already reached 102%[1] of such levels, suggesting volumes may be overstated.


Basemap: Stamen

SYSTRA
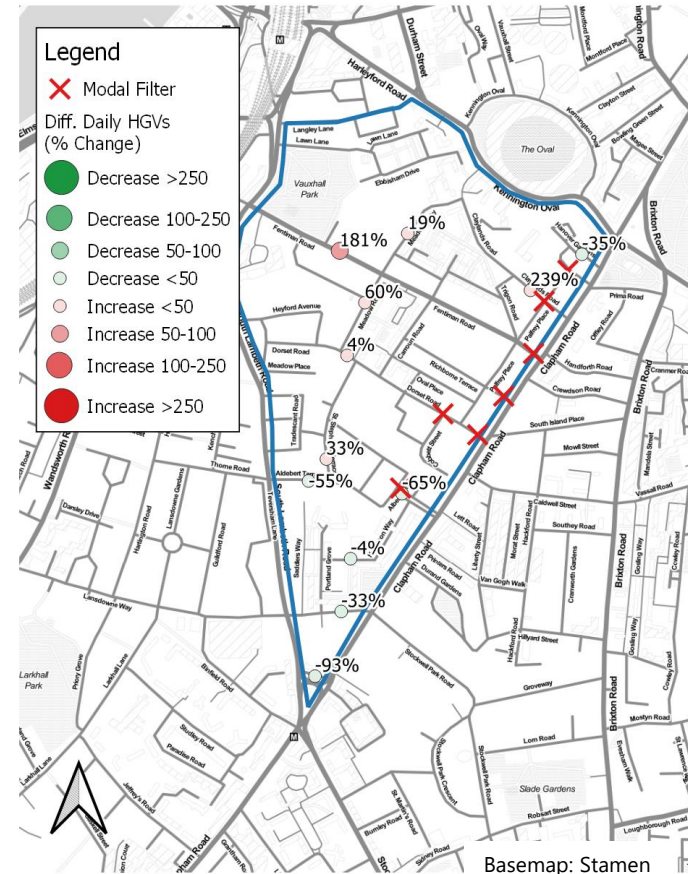
April 2021 Flow Change– LGVs

- The map to the right outlines changes in LGV counts compared to pre-implementation, at sites where data was collected in April 2021.

- Similarly to HGVs, LGV flows generally did not change significantly in April 2021; Albert Square (-168 vehicles), Fentiman Road (-174 vehicles) and Lansdowne Way (+193 vehicles) were the only sites where flows changed more than 100.

- Again, some locations saw large percentage changes in LGV movements – however, these translate into very small differences in actual vehicles counted. This can be seen for the 124% increase on St. Stephen's Terrace (+63 vehicles) and 88% increase on Meadow Road North (+50 vehicles).

Basemap: Stamen

April 2021 Flow Change– Motorcycles

- The map to the right outlines changes in cycle counts compared to pre-implementation, at sites where data was collected in April 2021.

- Changes in motorcycle flows are somewhat mixed, although in no location was there a change of over 100 daily vehicles. Even the 154% increase of motorcycles on St. Stephen's Terrace is the equivalent of 59 more vehicles per day.

Basemap: Stamen
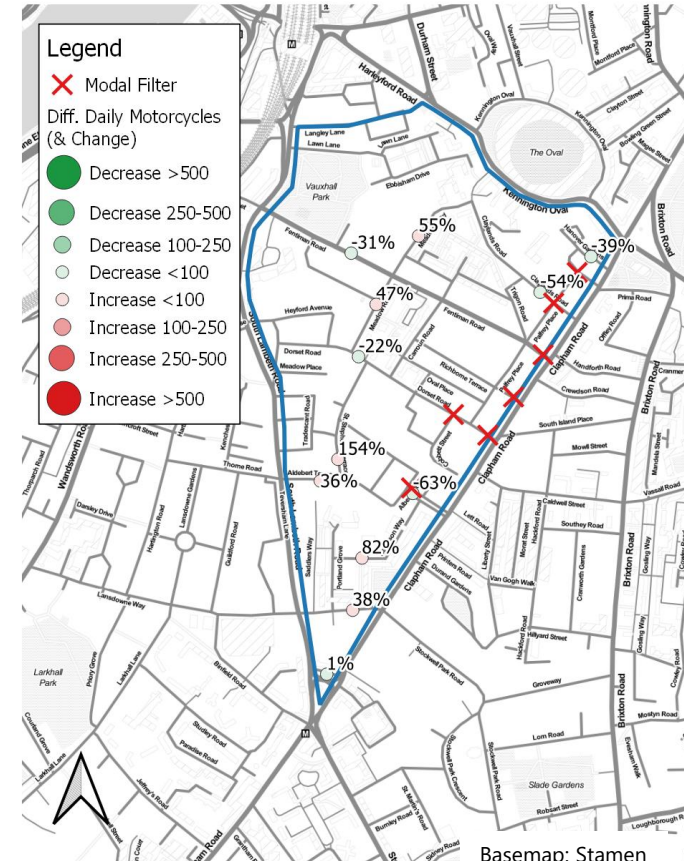
About SYSTRA

Introducing SYSTRA

- 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. Our 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.

- We 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.

SYSTRA

Contact Us

SYSTRA

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For Lambeth Council media enquiries – **communications@Lambeth.gov.uk**

To provide feedback on the Oval Low Traffic Neighbourhood,
please contact the Lambeth Transport Team via the following channels:
Commonplace engagement site –
https://ovalltnproposals.commonplace.is/
Email – **LowTrafficNeighbourhoods@Lambeth.gov.uk**

*Please note that due to the volume of questions we are unable to respond to individual queries;
however, we are working with LB Lambeth to create an FAQ document in relation to this
reporting.

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