

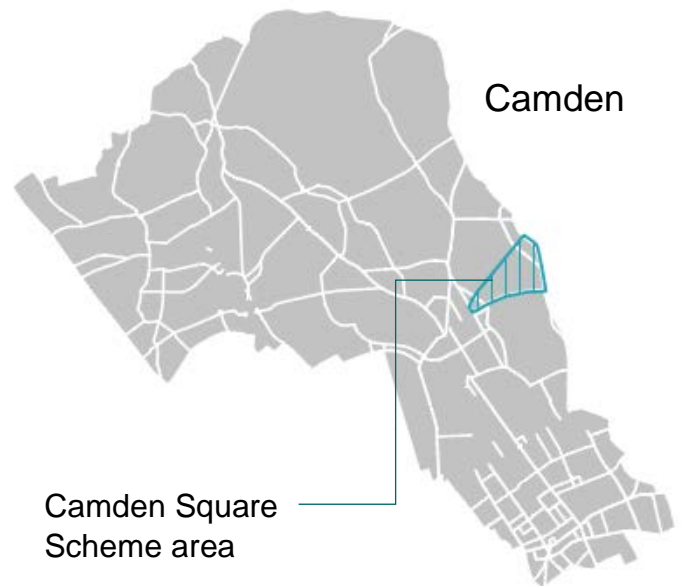


Monitoring: Camden Square Safe & Healthy Streets Scheme

Interim factsheet

As part of our [Camden Square Safe and Healthy Streets](#) project, several changes have been made to the area to help reduce motor vehicle flows, improve air quality and support safer walking and cycling across the streets in this area, which includes the following:

- Motor vehicle restrictions at the junctions of Murray Street and Camden Square/Stratford Villas and on North Villas between Canteloves Road and Camden Terrace
- Removal of the 'banned right turn' signs on Murray Street (junction with Camden Road)
- 'Left-turn only' restriction implemented on Camden Mews (junction with Camden Park Road) ensuring the road is not used as a 'rat-run' between Murray Street and York Way
- Improved pedestrian and cycling facilities including a new cycle connection between Royal College Street and York Way
- Installation of a Streatery on Murray Street to provide outside seating space for a local business
- Various parking changes to support the above measures






The scheme was implemented under an Experimental Traffic Order (ETO) which came into force on 16 December 2021. To review the impact of the Camden Square Area Scheme, data on motor vehicles, pedal cycles and air quality was collected before implementation and after implementation. The data has been compared and summarised in this interim factsheet. This information is useful in assessing the impact of the scheme and also provides information, alongside stakeholder feedback (including a full, final public consultation in early 2023) and relevant policies, in helping inform a decision on whether the trial scheme should be made permanent, modified, or removed at the expiry of the ETO.



Summary

This interim factsheet document sets out data and other information gathered to date during the trial period of the Camden Square Scheme. It has been gathered and analysed to help monitor the impact of the scheme. Further data will be collected when the Thames Water works on Agar Grove are complete; that data will be published as part of the decision report for the scheme.

A review of 'Before' and 'After' scheme data for the Camden Square Scheme indicates the following:

-  Motor vehicle levels on both 'local streets' and 'main roads' in scheme area have **reduced** (54% and 17% respectively) when comparing 'Before-scheme' and 'After-scheme' data.
-  Cycle levels have increased by 11% on 'local streets' in the Camden Square area comparing 'Before-scheme' and 'After-scheme' data
-  A **13% increase** in Lime dockless bike hire usage was observed when comparing the number of trips within the Camden Square Scheme area between January - June 2021 ('Before-scheme') and January - June 2022 ('After-scheme').
- NO₂** NO₂ levels have **decreased** at all 7 monitoring sites in the Camden Square scheme boundary when comparing February – July 2021 ('Before-scheme') with February – July 2022 ('After-scheme').

In summary, the latest monitoring data ('After-scheme') gathered indicates lower traffic levels within the Camden Square scheme area compared to the 'Before-scheme' data. Cycling levels within the Camden Square scheme area have increased 'After-scheme' compared to 'Before-scheme'. A positive impact on air quality has been identified at this stage based on the data available.

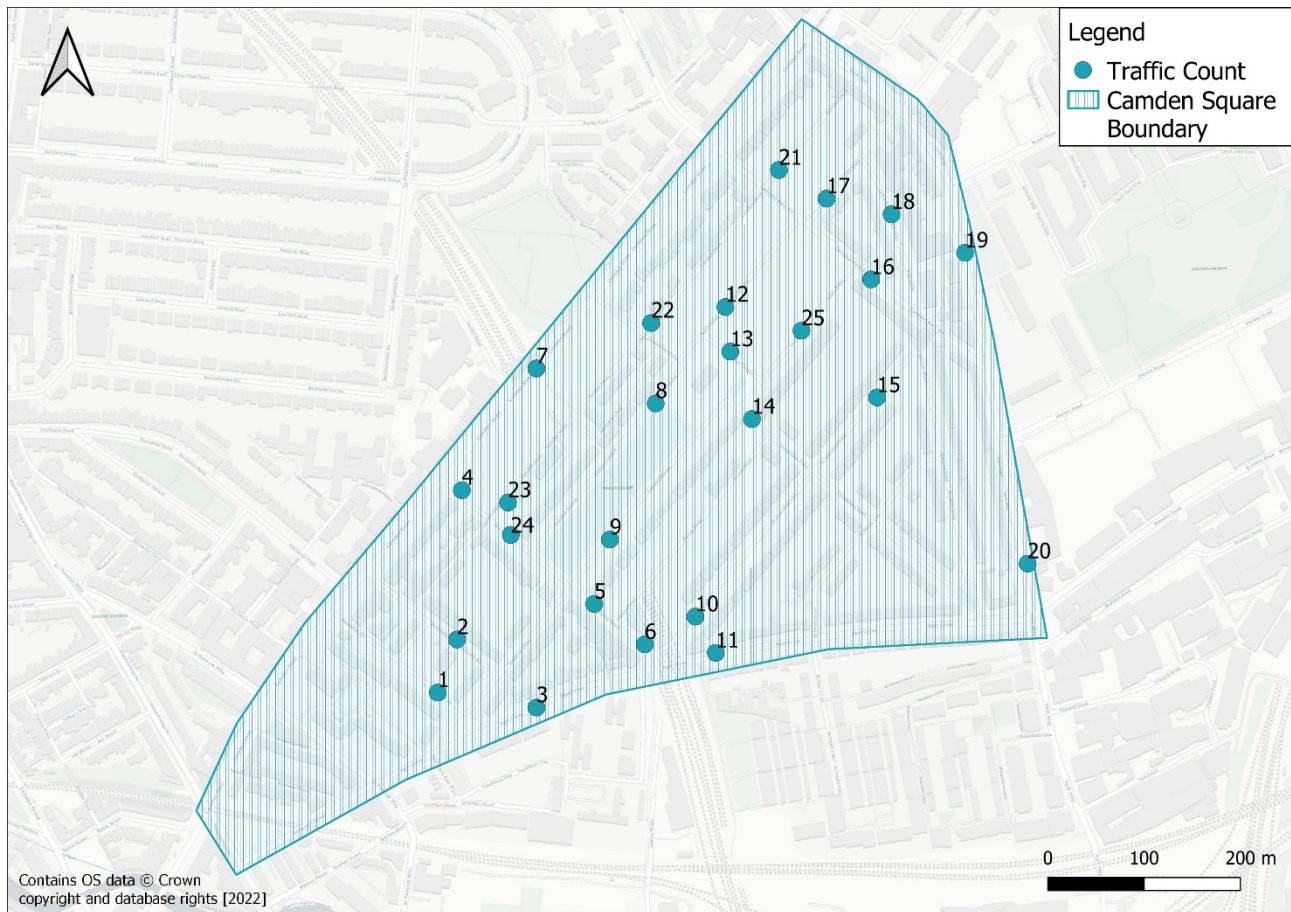


Motor Vehicle Data

Traffic Counts

To establish changes in traffic flows, traffic surveys undertaken in the Camden Square scheme area 'Before-scheme' and 'After-scheme' have been compared. The results presented below show the average daily traffic flows for twenty-five locations within the Camden Square scheme boundary. Cycle data is reviewed in the next section. See Appendix A and Appendix B for further details on the method and data used. The map below presents the locations of the traffic counts surveyed within the scheme boundary.

Camden Square Scheme Area and Traffic Count Sites



'**Before-scheme**' data for 20 locations (Traffic counts 1-6, 8-18 and 21-23) has been collected for a two-week period in June 2018 (03/06/2018-16/06/2018). Data for a further 3 locations (Traffic counts 7, 19 and 20) has been collected for a two-week period in 2019. 'Before-scheme' data for traffic counts 24 and 25 has been collected for a two-week period in June 2021. The results presented in the table below are an average for a 24-hour day and represent traffic flows prior to the ETO being implemented in December 2021.

'**After-scheme**' data (i.e. after the scheme was constructed) has been collected over a two week period in June 2022 through automatic traffic counts (traffic counts 1-6, 8-15 and 17-



20), vivacity sensors (traffic counts 16, 24 and 25), AI speed data (traffic count 7) and radar counts (traffic counts 21, 22 and 23). A breakdown is shown in Appendix A.

Average Daily Motor Vehicle Flows

Traffic Count	Road	Location	Before-scheme	After-scheme	% change
1	Rochester Square	West of Stratford Villas	808	461	-43%
2	Rochester Square	East of Stratford Villas	191	174	-9%
3	Agar Grove	West of Murray Street	9,695	8,136	-16%
4	Murray Street	North of Camden Mews	4,601	877	-81%
5	Murray Street	North of Murray Mews	4,778	521	-89%
6	Murray Street	South of Murray Mews	4,778	712	-85%
7	Camden Road	East of Murray Street	26,484	22,466	-15%
8	Camden Square	North of Camden Square Park	480	398	-17%
9	Camden Square	South of Camden Square Park	865	423	-51%
10	St Augustine's Road	West of Canteloves Road	981	775	-21%
11	Agar Grove	East of Murray Street	12,530	8,011	-36%
12	North Villas	East of Camden Terrace	1,146	859	-25%
13	Camden Terrace	South of North Villas	781	630	-19%
14	Canteloves Road	South of South Villas	828	731	-12%
15	St Augustine's Road	East of Canteloves Road	349	282	-19%
16	Camden Park Road	South of South Villas	10,008	7,557	-24%
17	Cliff Road	East of Camden Park Road	873	908	4%
18	Cliff Villas	South of Cliff Road	184	92	-50%
19	York Way	North of Camden Park Road	8,249	8,691	5%
20	York Way	North of Agar Road	15,327	13,023	-15%
21	Camden Mews	East of Camden Park Road	511	255*	-50%
22	Camden Mews	East of Canteloves Road	75	98*	31%
23	Camden Mews	East of Murray Street	69	156*	126%
24	Murray Street	South of Camden Mews	3,423	762	-78%
25	South Villas	East of Camden Terrace	577	561	-3%

*Total includes cycles due to data method collection (vehicle classification not possible).

The data suggests that overall the scheme has had a positive impact on traffic flows across the scheme area where 21 out of 25 sites have seen a decrease in traffic flows. Increases in traffic have been observed on Cliff Road (traffic count 17), York Way (traffic



count 19) and Camden Mews (traffic count 22 and 23). Positively, traffic flows have significantly reduced on Murray Street and Camden Square and have also reduced on Agar Grove.

It must be noted that on Camden Mews, the data collection method from Pre and Post scheme differed. Pre scheme data for Camden Mews was collected via a method which uses pneumatic tubing on the carriageway to count vehicles. However, following the collection of this data, it transpired there were issues with the accuracy of this method due to the cobbled nature of the Mews. In the after-scheme counts a more accurate method, for counting on cobbled streets, was used.

Local Streets and Main Roads

A review of traffic trends for 'local streets' and 'main roads' has been completed for the scheme. The traffic counts for each road within the scheme area have been categorised to determine daily average motor vehicle flows before and after scheme implementation, shown in the table below. The 'main roads' category comprises traffic count sites 3, 7, 11, 16, 19 and 20*. The 'local streets' category comprises traffic count sites 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 15, 17, 18, 21, 22, 23, 24 and 25**.

Camden Square Scheme Area Roads Daily Average Motor Vehicle Flow (7-Day)

Road	Before-scheme	After-scheme	% change
Local Streets	16,842	7,710	-54%
Main Roads	54,388	45,176	-17%
Total	71,230	52,886	-26%

*Traffic counts 3 and 10 (Agar Grove) have been totalled and divided by two to represent Agar Grove. Traffic counts 16 and 19 (Camden Park Road and York Way) have been totalled and then totalled with count 20 (York Way) and divided by two to represent York Way.

No count point was available for the section of St Pancras Way between Camden Road and Agar Grove.

**Traffic counts 4 and 24 (Murray Street) have been totalled and divided by two to represent Murray Street north of the restriction.

Traffic counts 5 and 6 (Murray Street) have been totalled and divided by two to represent Murray Street south of the restriction.

Traffic counts 10 and 15 (St Augustine's Road) have been totalled and divided by two to represent St Augustine's Road.

As shown above, both 'local streets' within the scheme boundary and 'main roads' have seen a decrease in traffic flows (54% and 17% respectively). Overall, this represents a 26% decrease in traffic across the Camden Square scheme area.

The overall 17% reduction in traffic flows on the 'main roads' in the Camden Square scheme area is greater than the traffic trends observed by TfL on their network over the same period. TfL's data suggests that the Inner London 'Transport for London Road



Network' (TLRN) had a reduction in traffic volumes in June 2022 of only 7% and 9% compared to pre-COVID trends (in March 2019 and June 2019 respectively). The TLRN data trends suggest general traffic levels are returning to pre-pandemic levels. This suggests that the implementation of the scheme has successfully reduced traffic volumes in the scheme area beyond external trends.



Vivacity Sensor Data

Four vivacity sensors are located within and around the Camden Square boundary. The vivacity sensor collects vehicle counts 24 hours a day. Data from April to October 2021 (Before scheme implementation) and April to October 2022 (After scheme implementation) has been averaged and presented for each site in the table below. Positively, following the scheme implementation, traffic flows have decreased at all locations. Overall, traffic flows have decreased by 5% when considering total motor vehicle flows observed across all four sensors.

Average Daily Traffic Flows (Vivacity sensors)

Year	Camden Park Road	Torriano Avenue	York Way	St Pancras Way	Total
2021 (Apr-Oct)	7,596	7,204	12,443	6,517	33,759
2022 (Apr-Oct)	7,214	7,055	11,974	5,844	32,087
% Change	-5%	-2%	-4%	-10%	-5%



Cycling Data

Automatic Traffic Counts

Both 'Before-scheme' and 'After-scheme' cycle counts have been sourced from the Automatic traffic count sites presented above; using the same count sites as the Average Daily Motor Vehicle Flows table. Cycle data is available for 16 sites 'Before-scheme' and 'After-scheme'.

Average Daily Cycle Flows (Automatic Traffic Counts)

Traffic Count	Road	Location	Before-scheme	After-scheme	% change
1	Rochester Square	West of Stratford Villas	80	109	36%
2	Rochester Square	East of Stratford Villas	48	77	59%
3	Agar Grove	West of Murray Street	603	798	32%
4	Murray Street	North of Camden Mews	239	272	14%
5	Murray Street	North of Murray Mews	232	309	33%
6	Murray Street	South of Murray Mews	231	240	4%
7	Camden Road	East of Murray Street		1,087	
8	Camden Square	North of Camden Square Park	70	184	162%
9	Camden Square	South of Camden Square Park	200	219	10%
10	St Augustine's Road	West of Canteloves Road	132	45	-66%
11	Agar Grove	East of Murray Street	649	839	29%
12	North Villas	East of Camden Terrace	337	344	2%
13	Camden Terrace	South of North Villas	177	103	-42%
14	Canteloves Road	South of South Villas	83	84	1%
15	St Augustine's Road	East of Canteloves Road	72	80	11%
16	Camden Park Road	South of South Villas			
17	Cliff Road	East of Camden Park Road	216	153	-29%
18	Cliff Villas	South of Cliff Road	2	96	5521%
19	York Way	North of Camden Park Road		345	
20	York Way	North of Agar Road		553	
21	Camden Mews	East of Camden Park Road			
22	Camden Mews	East of Canteloves Road			
23	Camden Mews	East of Murray Street			
24	Murray Street	South of Camden Mews			
25	South Villas	East of Camden Terrace			



Local Streets and Main Roads

A review of cycle trends on ‘main roads’ was not possible due to the lack of data available for St Pancras Way, Camden Road and York Way. A traffic count for each local street within the scheme area has been categorised to calculate the daily average cycle flow before and after scheme implementation as shown in the table below. The ‘local streets’ category comprises traffic count sites 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 15 and 17 and 18. Traffic counts 21–25 have not been included due to differing data collection methods. Due to the lack of data for the main roads we have not reported on these figures.

Camden Square Scheme Area Roads Daily Average Cycle Flow (7-Day)

Road	Before-scheme	After-scheme	% change
Local Streets	1,785	1,979	11%

* Traffic counts 5 and 6 (Murray Street) have been totalled and divided by two to represent Murray Street south of the restriction.
 Traffic counts 10 and 15 (St Augustine’s Road) have been totalled and divided by two to represent St Augustine’s Road.

As shown above, following the scheme’s implementation, local streets have seen a 11% increase in cycle flows.

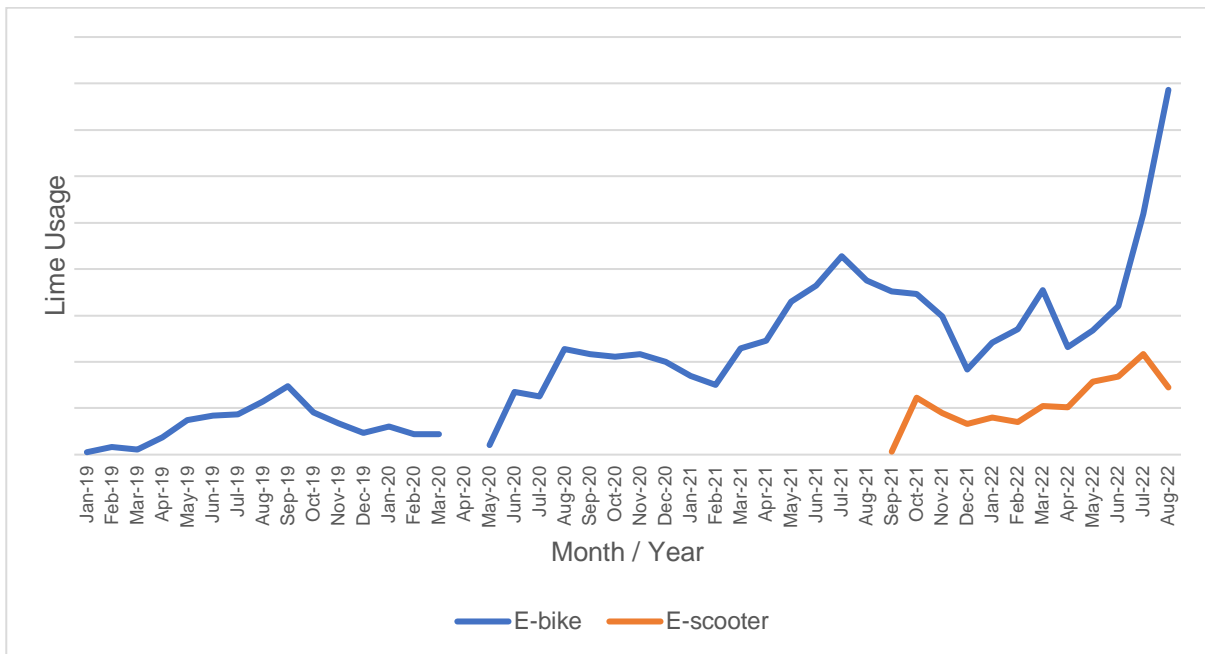


Lime Bicycle Trip Start and End Data

Monitoring of trips (that start or end) in the Camden Square Scheme area by Lime (bike rental operator) over 2019, 2020, 2021 and 2022 indicates that cycling levels (E-bike use) have risen sharply from February 2021 onwards. A significant drop in E-bike use was observed during December 2021, this is likely due to seasonality and implementation of the Covid-19 Plan B restrictions. E-scooter use is steadily increasing following December 2021.

The graph below illustrates the total number of trips observed that start or end in the Camden Square scheme area from January 2019 to the end of August 2022 (the most recent data available).

Lime E-Bike and E-Scooter Trips in Camden Square Scheme Area 2019-2022



N.B E-bike data was not available for April 2020. E-scooters were introduced in September 2021. Raw usage values have been redacted due to data sensitivity.

Comparison of data from January - June 2021 ('Before-scheme') and January - June 2022 ('After-scheme) shows that Lime E-bike usage has increased by 13% when analysing raw values. When considering Lime E-bike usage in 2019 and 2020 for the same period, usage has increased by 637% and 451% respectively.

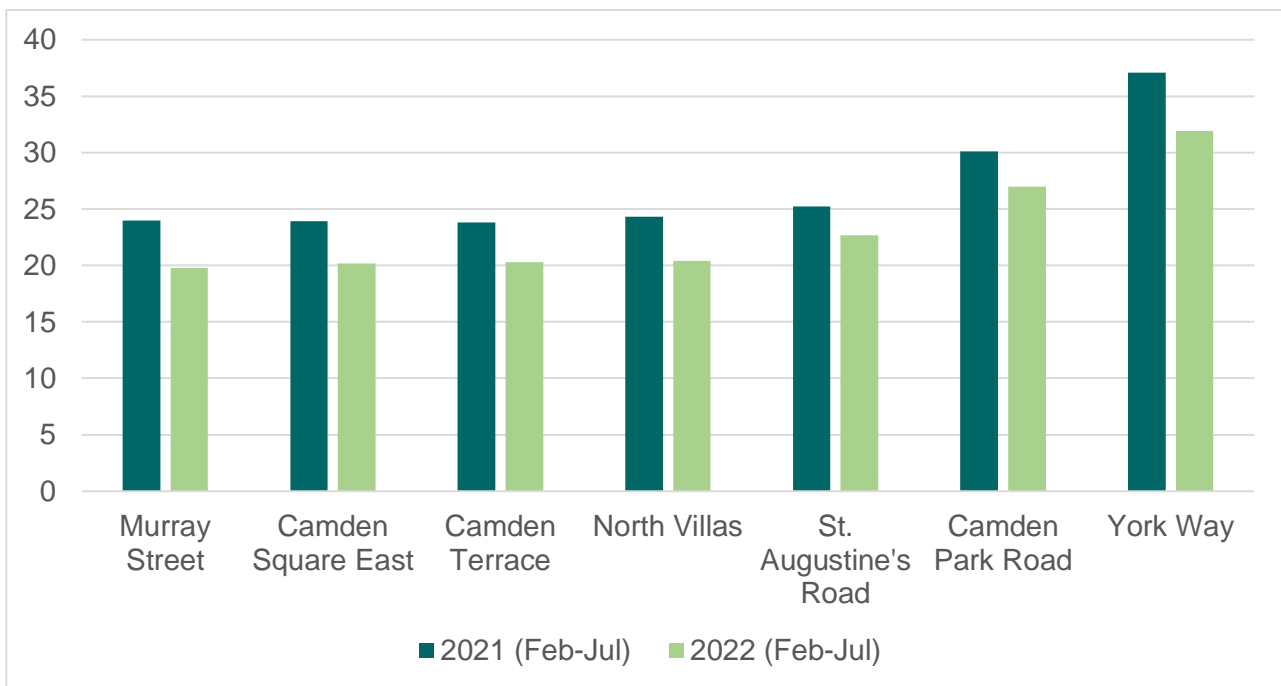
In August 2022, Lime recorded the highest number of E-bike rides in the Camden Square Scheme area since monitoring began which is a 109% increase relative to August 2021, and a 246% increase relative to August 2020.



Air Quality

Seven diffusion tube air quality monitoring sites have been installed as part of the Camden Square scheme to monitor changes in nitrogen dioxide (NO₂) concentrations. The graph below shows the average raw NO₂ concentrations recorded in February 2021 – July 2021 ('Before-scheme'), compared to the average concentrations recorded in February 2022 – July 2022 ('After-scheme'). As shown on the graph, NO₂ concentrations have decreased at all seven of the diffusion tube sites.

Average NO₂ concentrations (µg/m³) in the Camden Square scheme area



N.B. March data not available for North Villas. February data not available for Camden Park Road and York Way.

The data above is raw and unadjusted against the Government's bias adjustment factor. Therefore, this data cannot be measured against the National Air Quality Objective. A breakdown of the raw air quality data is provided in Appendix C. The overall trend of reductions at all monitoring sites indicates a positive trajectory in air quality. Changes have recently been made to the junction of Camden Park Road and Camden Road to increase junction efficiency and reduce congestion on Camden Park Road. It should be noted that air pollution is caused by multiple factors and whilst traffic is an important contributor it may be difficult to single out the impact of an individual factor.

Air quality in the Camden Square scheme area will continue to be monitored to establish any changes arising 'After-scheme' in the coming months.



Appendix A: Traffic Data Methodology

Traffic Count Data

To monitor and review the impacts of the scheme, traffic count data was collected before and after the opening of the scheme as follows:

- Before: Automatic traffic counts have been used to provide 'Before-scheme' data for a two-week period in June 2018 for 20 traffic counts. Automatic traffic counts have also been used to provide 'Before-scheme' data for a two-week period in March 2019 for 3 traffic counts (traffic count 7, 19 and 20). Vivacity counters have been used to provide 'Before-scheme' data for traffic counts 24 and 25 for a two-week period in June 2021.
- After: Automatic traffic counts have been used to provide 'After-scheme' data for a two-week period in June 2022. Vivacity sensors were used at traffic count 16, 24 and 25, AI speed counts were used for traffic count 7 and Radar data has been used for traffic counts 21-23 for the same period.

Summary of Survey Data

Traffic Count	Before-scheme			After-scheme			
	Method	Dates	Days	Method	Dates	Days	
1	ATC	03/06/2018 - 16/06/2018	14	ATC	06/06/2022 - 19/06/2022	14	
2		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
3		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
4		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
5		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
6		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
7		03/03/2019 - 16/03/2019		AI Speed	06/06/2022 - 19/06/2022		
8		03/06/2018 - 16/06/2018		ATC	06/06/2022 - 19/06/2022		
9		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
10		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
11		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
12		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
13		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
14		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
15		03/06/2018 - 16/06/2018			06/06/2022 - 19/06/2022		
16		03/06/2018 - 16/06/2018			Vivacity		06/06/2022 - 19/06/2022
17		03/06/2018 - 16/06/2018			ATC		06/06/2022 - 19/06/2022
18		03/06/2018 - 16/06/2018		06/06/2022 - 19/06/2022			
19		17/03/2019 - 30/03/2019		06/06/2022 - 19/06/2022			
20		17/03/2019 - 30/03/2019		06/06/2022 - 19/06/2022			
21		03/06/2018 - 16/06/2018		Radar	06/06/2022 - 19/06/2022		



22		03/06/2018 - 16/06/2018		06/06/2022 - 19/06/2022
23		03/06/2018 - 16/06/2018		06/06/2022 - 19/06/2022
24	Vivacity	06/06/2021 - 19/06/2021	Vivacity	06/06/2022 - 19/06/2022
25		06/06/2021 - 19/06/2021		06/06/2022 - 19/06/2022



Appendix B: ATC Traffic Data

Camden Square Average Daily Traffic Flows – Raw Data

Traffic Count	Road Name	Location	Direction	Before				After			
				Cycles	Light*	Heavy**	Total***	Cycles	Light*	Heavy**	Total***
1	Rochester Square	West of Stratford Villas	NB	34	365	4	368	54	224	9	234
			SB	47	432	8	440	55	220	8	227
			Two-way	80	797	11	808	109	444	17	461
2	Rochester Square	East of Stratford Villas	NB	27	87	7	94	36	91	8	98
			SB	22	93	4	97	41	70	6	76
			Two-way	48	180	11	191	77	161	14	174
3	Agar Grove	West of Murray Street	EB	315	4,338	306	4,644	408	4,658	369	5,026
			WB	288	4,711	340	5,050	391	2,840	270	3,110
			Two-way	603	9,048	646	9,695	798	7,498	638	8,136
4	Murray Street	North of Camden Mews	NB	137	2,853	94	2,947	136	319	16	335
			SB	102	1,574	80	1,654	136	518	24	542
			Two-way	239	4,427	174	4,601	272	836	40	877
5	Murray Street	North of Murray Mews	NB	133	2,803	127	2,930	138	275	18	293
			SB	99	1,786	62	1,848	170	218	10	228
			Two-way	232	4,589	189	4,778	309	493	28	521
6	Murray Street	South of Murray Mews	NB	132	2,767	129	2,896	118	352	18	369
			SB	99	1,818	64	1,882	122	324	18	343
			Two-way	231	4,585	193	4,778	240	676	36	712
7	Camden Road	East of Murray Street	NB		11,863	1,253	13,116	653	11,005	604	11,609
			SB		11,992	1,376	13,368	434	10,263	594	10,857
			Two-way		23,855	2,629	26,484	1,087	21,269	1,198	22,466



8	Camden Square	North of Camden Square Park	NB	70	450	30	480	88	301	21	322
			SB					96	71	5	76
			Two-way	70	450	30	480	184	372	26	398
9	Camden Square	South of Camden Square Park	NB	71	389	16	405	121	241	13	254
			SB	129	442	18	459	98	158	11	169
			Two-way	200	831	33	865	219	399	25	423
10	St Augustine's Road	West of Canteloves Road	NB	61	523	18	540	26	420	16	436
			SB	72	424	16	440	20	323	15	339
			Two-way	132	947	34	981	45	743	32	775
11	Agar Grove	East of Murray Street	EB	334	5,216	370	5,586	435	4,563	348	4,911
			WB	314	6,525	419	6,944	404	2,843	257	3,100
			Two-way	649	11,741	788	12,530	839	7,406	606	8,011
12	North Villas	East of Camden Terrace	NB	167	403	19	422	184	313	12	325
			SB	170	688	37	725	160	509	24	534
			Two-way	337	1,091	55	1,146	344	823	36	859
13	Camden Terrace	South of North Villas	EB	128	611	34	645	61	137	8	146
			WB	49	132	4	136	42	457	27	485
			Two-way	177	744	37	781	103	595	36	630
14	Canteloves Road	South of South Villas	NB	29	356	11	367	53	379	21	400
			SB	54	435	25	461	30	301	29	331
			Two-way	83	792	36	828	84	680	51	731
15	St Augustine's Road	East of Canteloves Road	NB	37	187	9	196	23	159	8	167
			SB	36	145	8	153	57	109	6	115
			Two-way	72	332	17	349	80	268	14	282
16	Camden Park Road	South of South Villas	NB						7,142	415	7,557
			SB		9,164	844	10,008				
			Two-way		9,164	844	10,008		7,142	415	7,557
17	Cliff Road	East of Camden Park Road	NB								
			SB	216	839	33	873	153	872	36	908



			Two-way								
18	Cliff Villas	South of Cliff Road	NB	1	134	10	144	96	84	7	92
			SB	1	39	1	40				
			Two-way	2	173	11	184				
19	York Way	North of Camden Park Road	NB								
			SB		7,018	1,231	1,231	345	7,882	809	8,691
			Two-way		7,018	1,231	1,231				
20	York Way	North of Agar Road	NB		6,522	1,040	7,563	350	5,828	458	6,286
			SB		7,000	764	7,764	203	6,353	384	6,737
			Two-way		13,522	1,804	15,327	553	12,181	842	13,023
21	Camden Mews	East of Camden Park Road	NB	18	490	3	492		1,721	61	1,782
			SB								
			Two-way								
22	Camden Mews	East of Canteloves Road	NB	13	62	0	62		647	40	686
			SB								
			Two-way								
23	Camden Mews	East of Murray Street	NB								
			SB	4	62	3	65		766	327	1,093
			Two-way								
24	Murray Street	South of Camden Mews	NB		1,068	12	1,080		223	5	228
			SB		2,286	58	2,343		515	19	534
			Two-way		3,354	70	3,423		738	24	762
25	South Villas	East of Camden Terrace	EB		553	9	562		539	8	547
			WB		14	0	15		13	1	14
			Two-way		568	9	577		552	9	561

*Light = Cars and Light Goods Vehicles **Heavy (HDV) = Heavy Goods Vehicles + Public Service Vehicles ***Total excludes Cycles



Appendix C: Air Quality Data

Monitoring Site	Raw NO ₂ concentrations (µg/m ³)	
	2021 (Feb-Jul)	2022 (Feb-Jul)
Murray Street	24	19.8
Camden Square East	23.9	20.2
Camden Terrace	23.8	20.3
North Villas	24.3	20.4
St Augustine's Road	25.2	22.7
Camden Park Road	30.1	27
York Way	37.1	31.9

