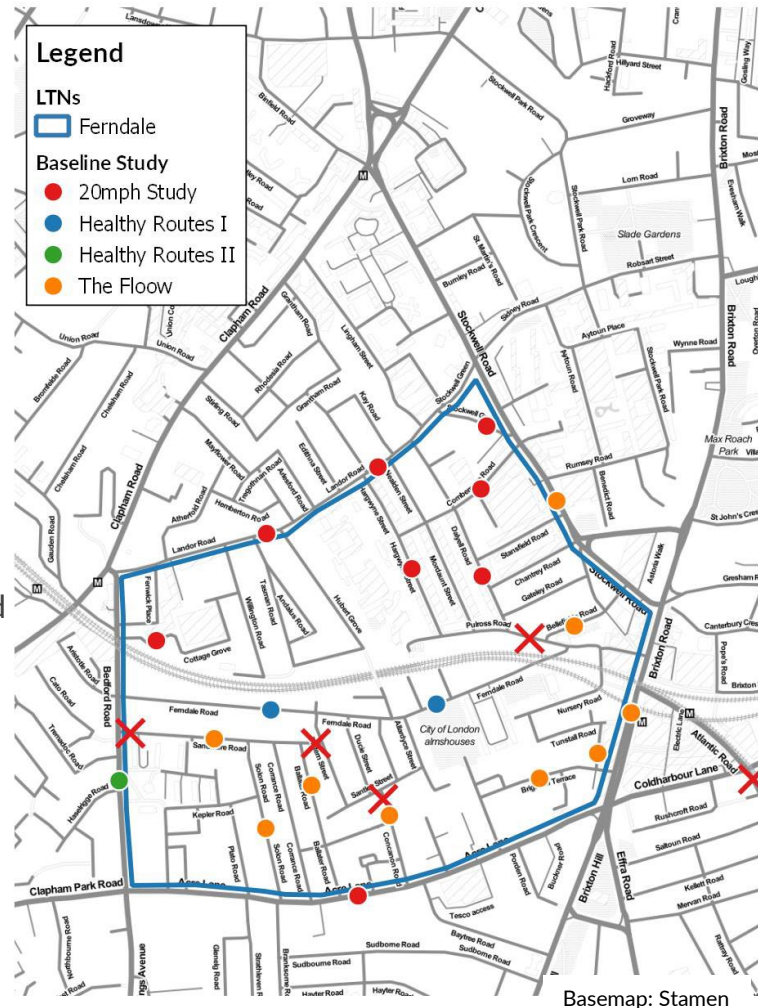


Appendix A: Data Collection & Vehicle Classification



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)
 - **20mph Study:** data collected to underpin analysis on the 20mph Borough-wide speed limit (Jan 2017).
 - **The Flow:** 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.
 - Brixton Road and Stockwell Road flows utilised Flow data scaled per TfL ATC counters – more information is available in **Appendix C**.
- Of the 19 ATC sites, 3 sites use the Healthy Routes studies, 7 sites use the 20mph study and 7 utilise both The Flow data and Healthy Routes. A further 2 sites use TfL ATC-adjusted Flow data.

















Data Collection

- Through the monitoring programme, data has been collected across the Borough – this has generally been installed in the same locations as those used in a previous study to ensure a fair comparison, although some additional sites have been added, and these will need to make use of The Flow data instead to enable a comparison.
- Almost all new data has been collected via **Automatic Traffic Counters (ATCs)**, which are installations that consist of two pneumatic tubes spanning the width of roads to be surveyed – these capture 15 vehicle classes in both directions based on number of vehicle axles and the distance between axles, and are regularly used across the transport planning profession to capture traffic information. Some sites (Brixton Road and Stockwell Road) on the Transport for London Road Network (i.e. “Red Routes”) have had data collected by radar instead as TfL does not permit ATCs to be installed on roads they manage.
- Based on the vehicle classifications on the following slide, class 1 & 2 vehicles have been classified as “**car**”, class 3 vehicles have been classed as “**LGV**”, classes 4 to 12 vehicles have been classified as “**HGV**”, class 14 vehicles have been classed as “**motorcycle**” and class 15 vehicles have been classed as “**cycle.**”

Vehicle Classifications

- The table below outlines the **axle-based** vehicle classes as defined by survey companies.

Class		Axes	Groups	Description	Parameters	Dominant Vehicle	Aggregate
1	SV	2	1 OR 2	Short - Car, light Van	$d(1) > 1.7m, d(1) \leq 3.2m$ & axles=2		Light
2	SVT	3, 4 OR 5	3	Short Towing - Trailer, Caravan, Boat, etc.	groups=3, $d(1) > 2.1m, d(1) \leq 3.2m, d(2) > 2.1m$ & axles=3,4,5		
3	TB2	2	2	Two axle truck or Bus	$d(1) > 3.2m$ & axles=2		Medium
4	TB3	3	2	Three axle truck or Bus	axles=3 & groups=2		
5	T4	>3	2	Four axle truck	axles>3 & groups=2		
6	ART3	3	3	Three axle articulated vehicle or Rigid vehicle and trailer	$d(1) > 3.2m, axles=3$ & groups=3		Heavy
7	ART4	4	>2	Four axle articulated vehicle or Rigid vehicle and trailer	$d(2) < 2.1m$ or $d(1) < 2.1m$ or $d(1) > 3.2m$ axles = 4 & groups>2		
8	ART5	5	>2	Five axle articulated vehicle or Rigid vehicle and trailer	$d(2) < 2.1m$ or $d(1) < 2.1m$ or $d(1) > 3.2m$ axles = 5 & groups>2		
9	ART6	>=6	>2	Six (or more) axle articulated vehicle or Rigid vehicle and trailer	axles=6 & groups>2 or axles>6 & groups=3		
10	BD	>6	4	B-Double or Heavy truck and trailer	groups=4 & axles>6		
11	DRT	>6	5	Double road train or Heavy truck and two trailers	groups=5,6 & axles>6		
12	TRT	>6	>6	Triple road train or Heavy truck and three (or more) trailers	groups>6 & axles>6		
14	M/C	2	1 OR 2	Motorcycle	$d(1) > 1.18m, d(1) \leq 1.7m$ & axles=2		Light
15	CYCLE	2	1 OR 2	Cycle	$d(1) < 1.18$ & axles=2		

Vehicle Classifications

- The Automatic Traffic Counters (ATCs) used in this study are considered a reliable, tested method of data collection, and are utilised throughout the transport industry to understand traffic volumes on roads.
- Whilst such counters are generally considered at least 95% accurate in collecting correct traffic data, there is some room for error in vehicle classification (for example tandem cycles being classed as motorbikes given the distance between axles, or scooters being classed as cycles). However, **most** issues occur in the sorting of different types of HGVs into the 9 relevant categories.
- More commonly, vehicles park on or across ATCs, leading to periods where no data is collected. This occurs in pre- and post-implementation data in equal measure, and where such occurrences are likely to have a material impact on analysis results, such missing data has been “patched” or “infilled” using appropriate replacements (*for example, patching blank data 10-11am on a Wednesday with data from 10-11am the day before*). This is a standard practice in the transport industry.



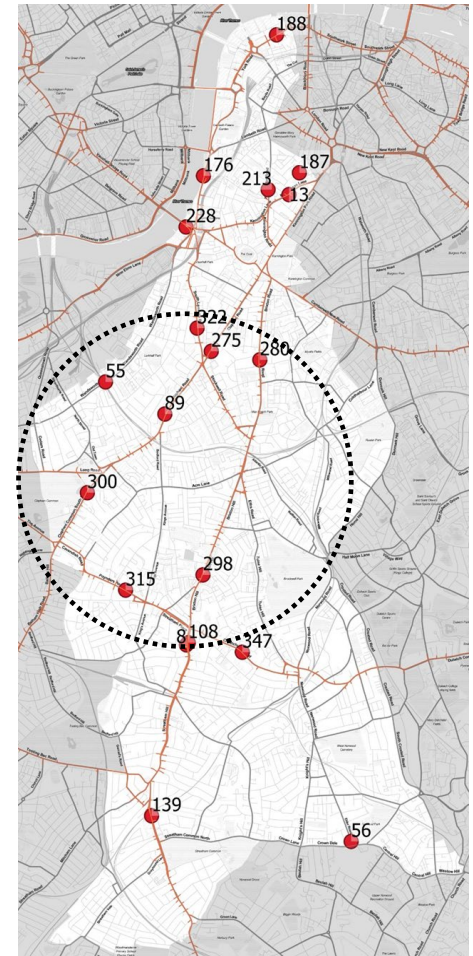
Appendix B: Baseline Calculations

Baseline Calculations (1)

- A “**baselining**” or “**normalisation**” process has been undertaken to approximate a “no-LTN” case for all sites, providing a point of comparison against which recorded “with-LTN” data can be compared.
- Under normal circumstances, this baseline case would have taken flows from before the scheme implementation and compared these (sometimes with a slight adjustment to compensate for population change/employment levels/etc.) to post-implementation flows.
- The nominal (number of vehicles) and percentage changes would *help* indicate, amongst other factors, whether the scheme had achieved its stated goals.
- Given that the LTNs have been part of Lambeth’s emergency response to the Covid-19 pandemic, and that background traffic flows have been very abnormal since March 2020, the aforementioned process could not be followed in such a straightforward manner.

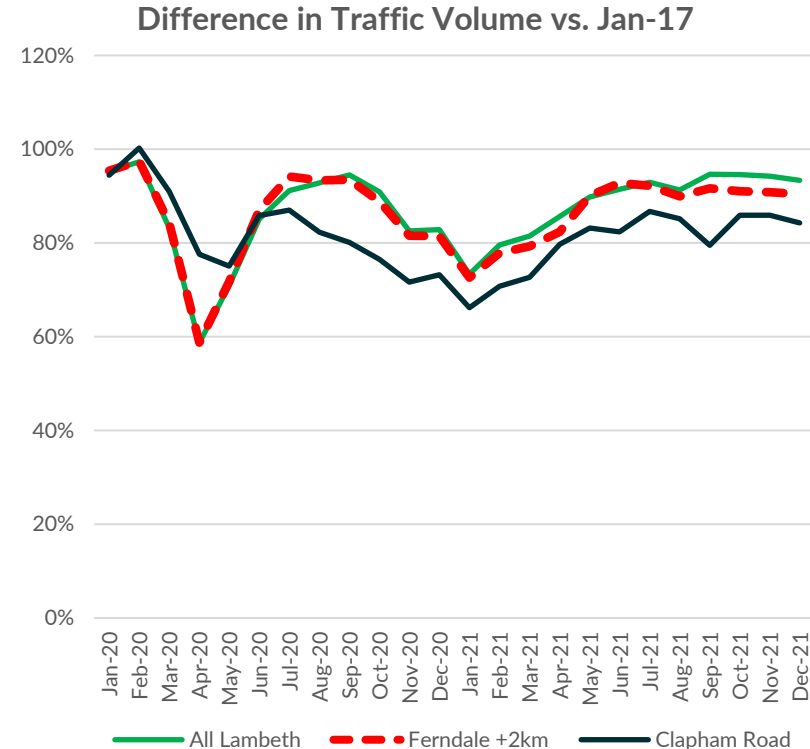
Baseline Calculations (2)

- Instead, to ensure as fair a comparison as possible, flow data from before the LTN was installed (“pre-implementation” data) has been **normalised to late November/early December 2021**, when the most recent traffic counts were conducted, representing what would have happened *with* the Covid-19 pandemic, but *without* the LTN.
- The normalisation process uses a “scaling factor” based on the volume of traffic at TfL continuous traffic counters in Lambeth, and within 2km of the LTN’s centre (shown right), for locations where consistent data is available.
- This process has been changed since the baseline report, which considered only the closest TfL ATC. Further examination has revealed significant divergence in flow patterns on trunk roads across the Borough and supports including a wider range of ATCs to perform the normalisation – this means that some baseline numbers and stage 1 outputs have changed.
- It should be noted that the normalisation is a **general** adjustment in terms of **magnitude and direction** of change, rather than an **exact** adjustment.



Baseline Calculations (3)

- The chart to the right shows profiles of traffic flows under various calculation methodologies: ATC counters in all of Lambeth, within 2km of the Ferndale LTN and at an ATC adjacent to the LTN on Clapham Road.
- As a balance between representing local flows and ensuring erroneous traffic events (accidents/construction) do not unduly impact normalisation, the **Ferndale +2km approach has been utilised in this report**, which leads to more conservative results (i.e. understating reductions in cars/HGVs/LGVs) than does the Borough average.
- Whilst using the Clapham Road ATC for normalisation would have produced more conservative results than those taken, it is considered that this is unlikely to be indicative of general trends, given that traffic levels at this location were broadly similar in May 2020 and December 2021 despite drastically different COVID guidance being in place.



Baseline Calculations (4)

- The “scaling factor” used for this normalisation differs by site, as pre-implementation data was drawn from a variety of studies occurring between 2017 and early 2020, which are subject to seasonal differences in traffic flows.
- Because traffic has typically been lower than pre-Covid throughout 2020-2021, normalising data represents a conservative approach to analysis, and would tend to underestimate reductions in vehicle numbers.
- The below example shows how the scaling factor is calculated and applied to flows for Concanon Road:

$$\frac{\text{TfL ATC traffic flow: Nov 29-Dec 5, 2021}}{\text{TfL ATC traffic flow: Nov 27-Dec 3, 2019}} = \frac{1,105,610}{1,235,829} = 89.5\% \quad \longrightarrow \quad \text{Nov/Dec '21 flows are 89.5\% of Nov/Dec '19 flows}$$

$$\frac{\text{Concanon Road flows: Nov/Dec 2021}}{(\text{Concanon Road flows: December 2019}) * (\text{Scaling Factor})} - 1 = \frac{157}{3,234 * 89.5\%} - 1 = \frac{157}{2,893} - 1 = 0.05 - 1 = -95\%$$

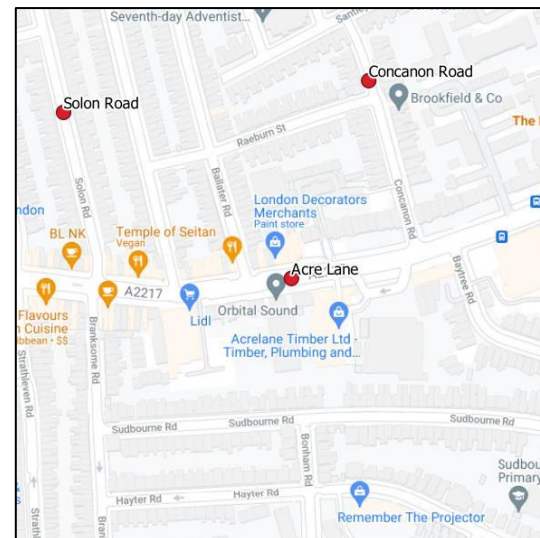
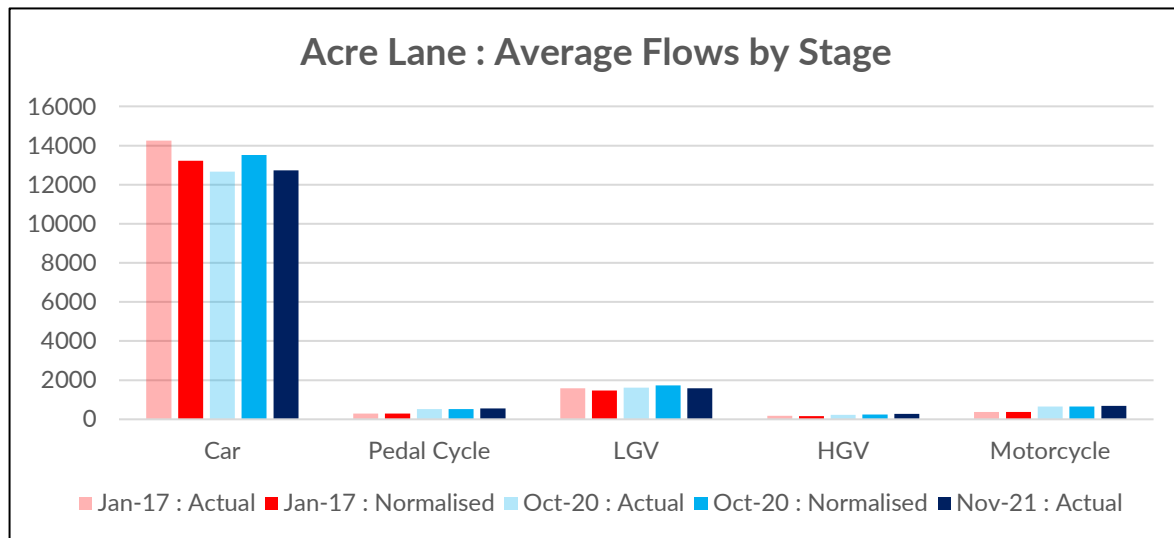
95% decrease in car flows



Appendix C: Traffic Flow Results

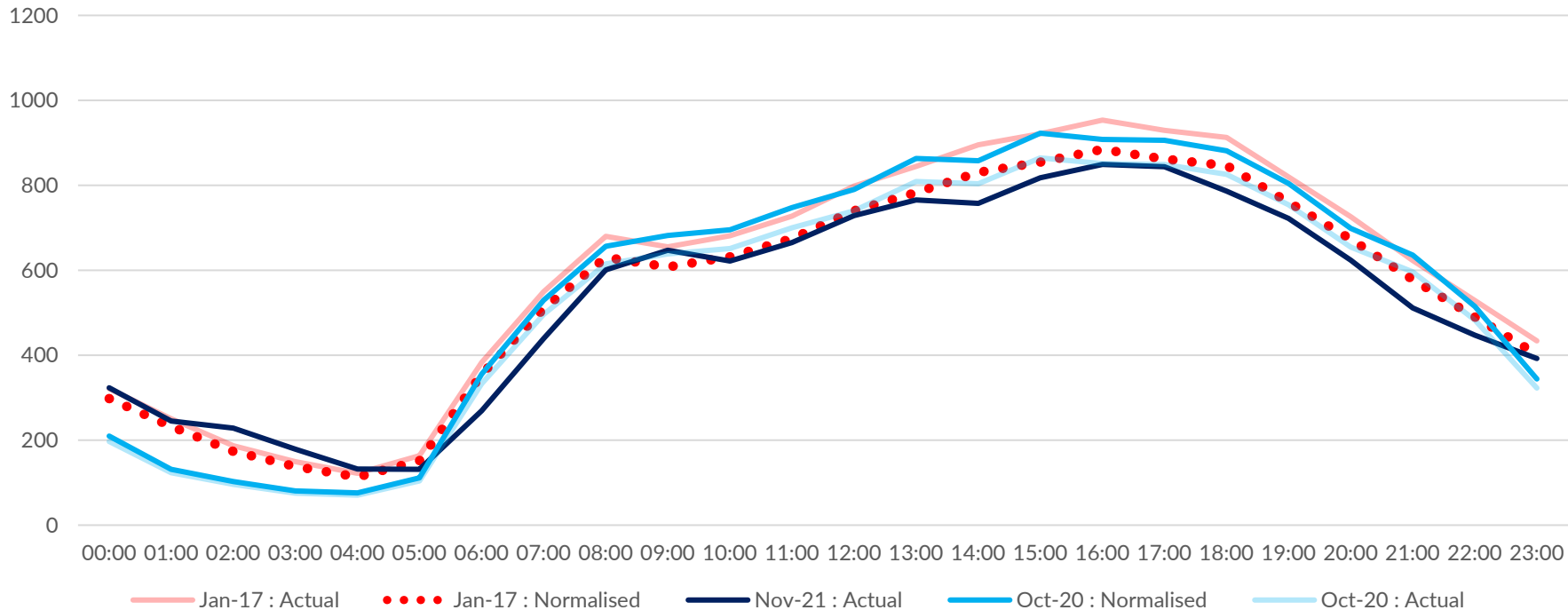
Acre Lane (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Acre Lane, showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from October 2020 and from late November/early December 2021.

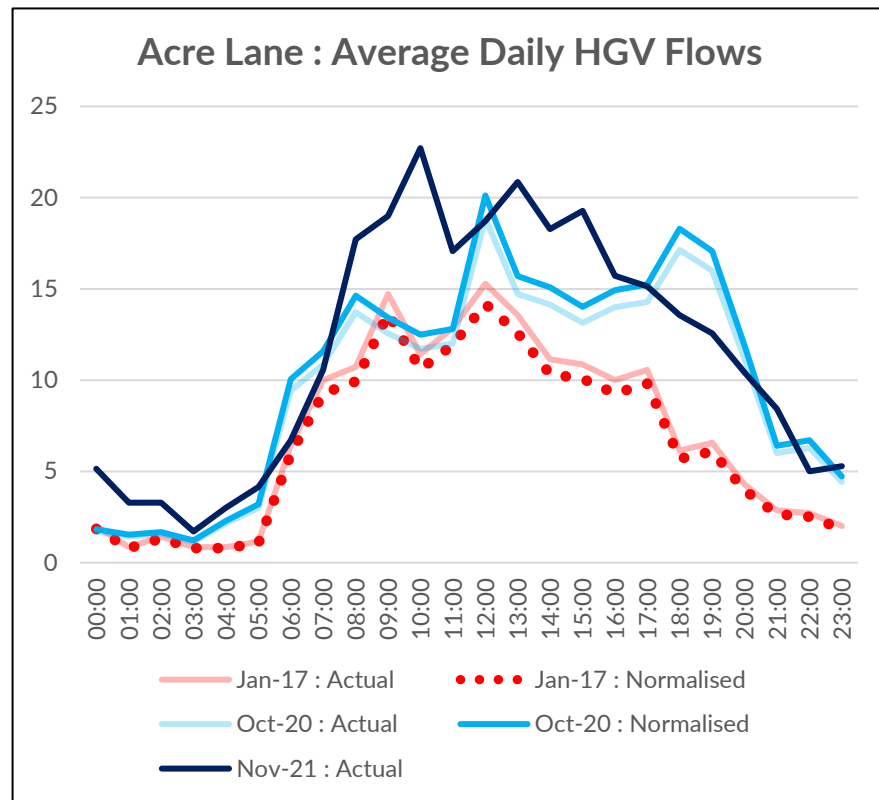
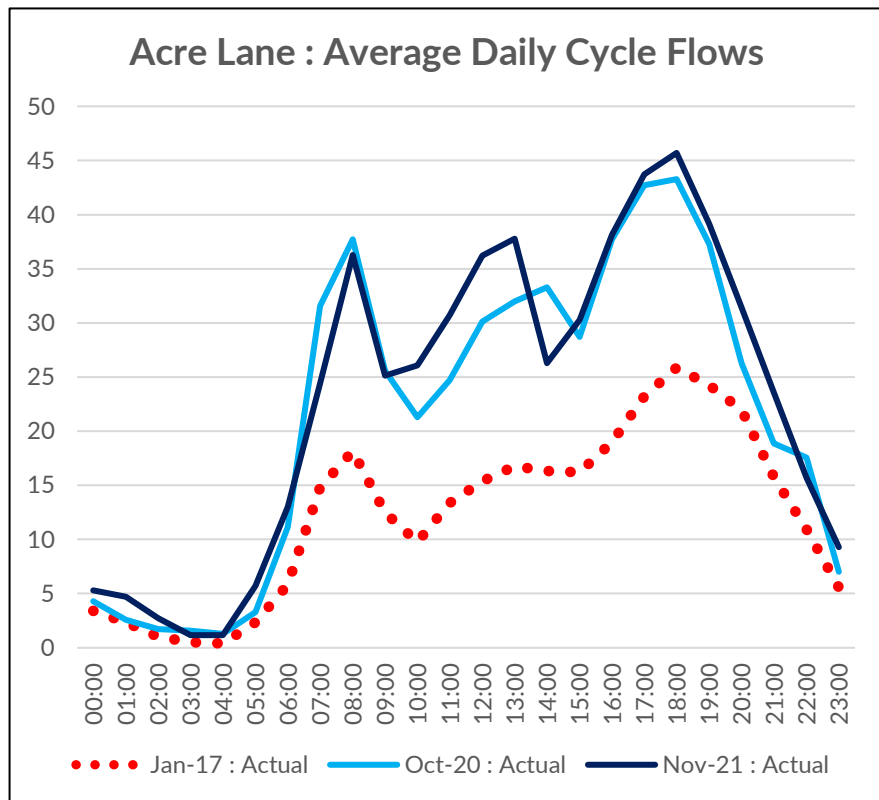


Acre Lane

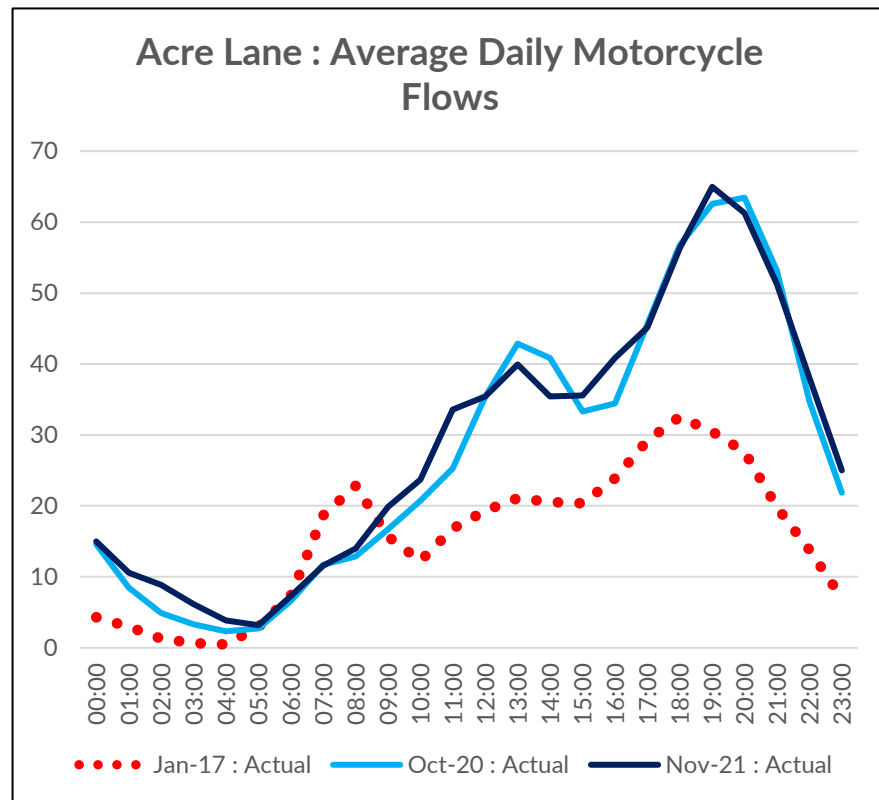
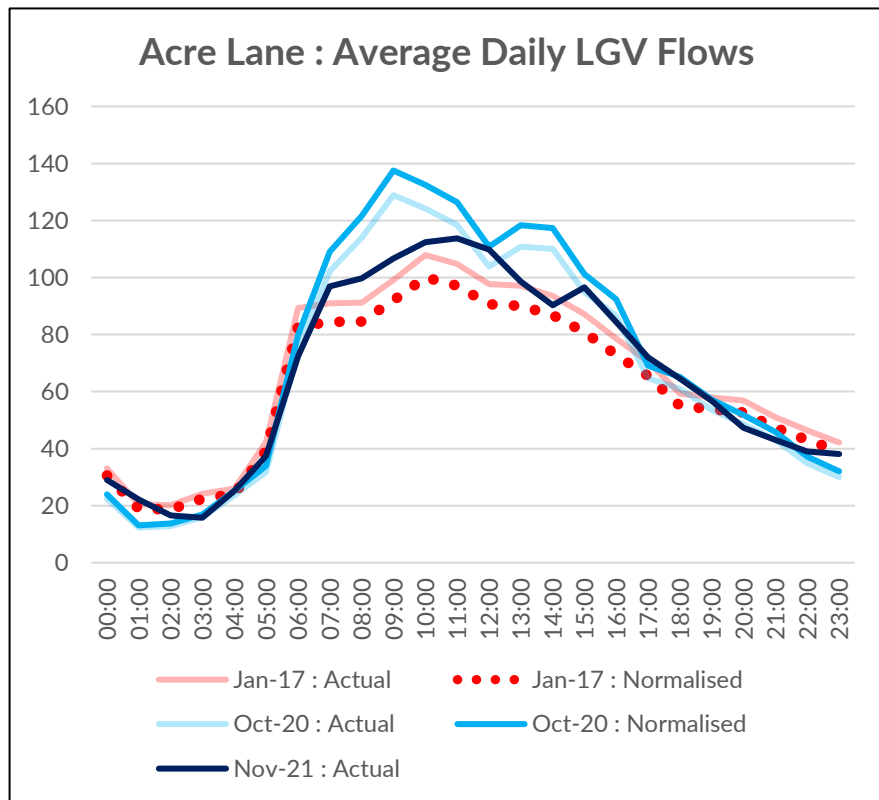
Acre Lane : Average Daily Car Flows



Acre Lane



Acre Lane

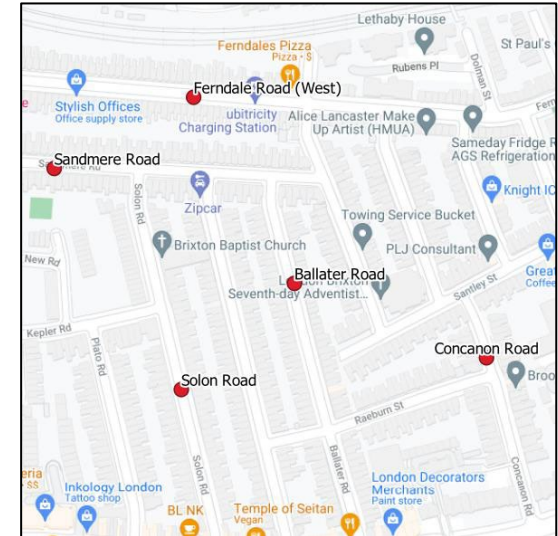
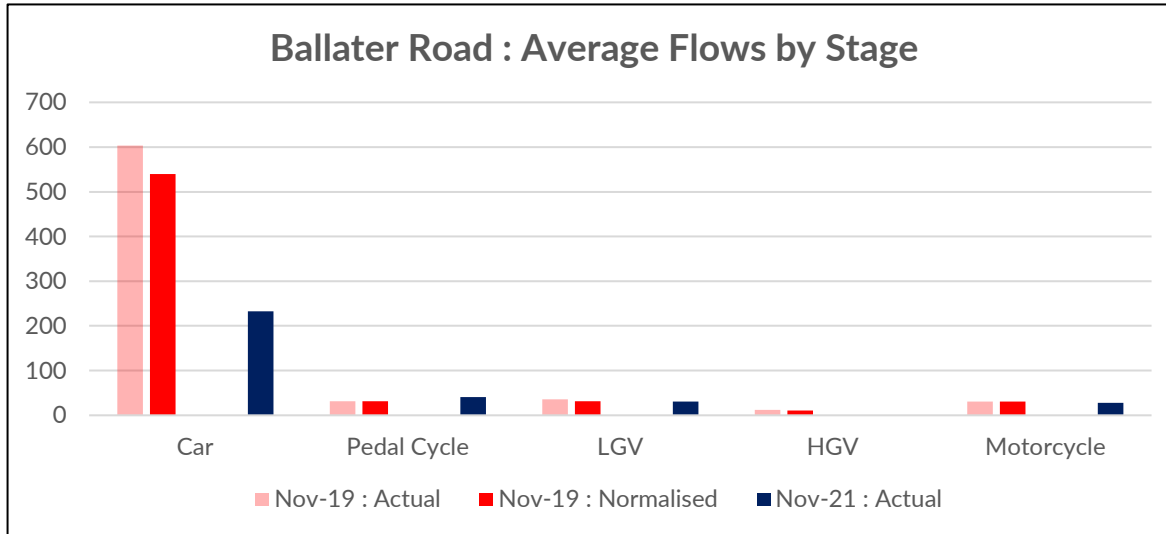


Acre Lane - Summary Table

	Jan-17 : Actual	Jan-17 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Jan-17 -> Oct-20 : Actual Difference	Jan-17 -> Oct-20 : Actual % Difference	Jan-17 -> Oct-20 : Normalised Difference	Jan-17 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	14,261	13,227	12,661	13,510	-1,600	-11%	283	2%	12,734	12,734	-1,527	-11%	-494	-4%
Cycle	296	296	522	522	226	76%	226	76%	554	554	258	87%	258	87%
HGV	169	157	231	247	62	37%	90	57%	278	278	108	64%	121	77%
LGV	1,588	1,473	1,623	1,732	36	2%	260	18%	1,588	1,588	1	0%	116	8%
Motorcycles	372	372	655	655	283	76%	283	76%	687	687	315	85%	315	85%
Total Motorised Vehicles	16,018	14,857	14,515	15,489	-1,503	-9%	632	4%	14,599	14,599	-1,418	-9%	-258	-2%

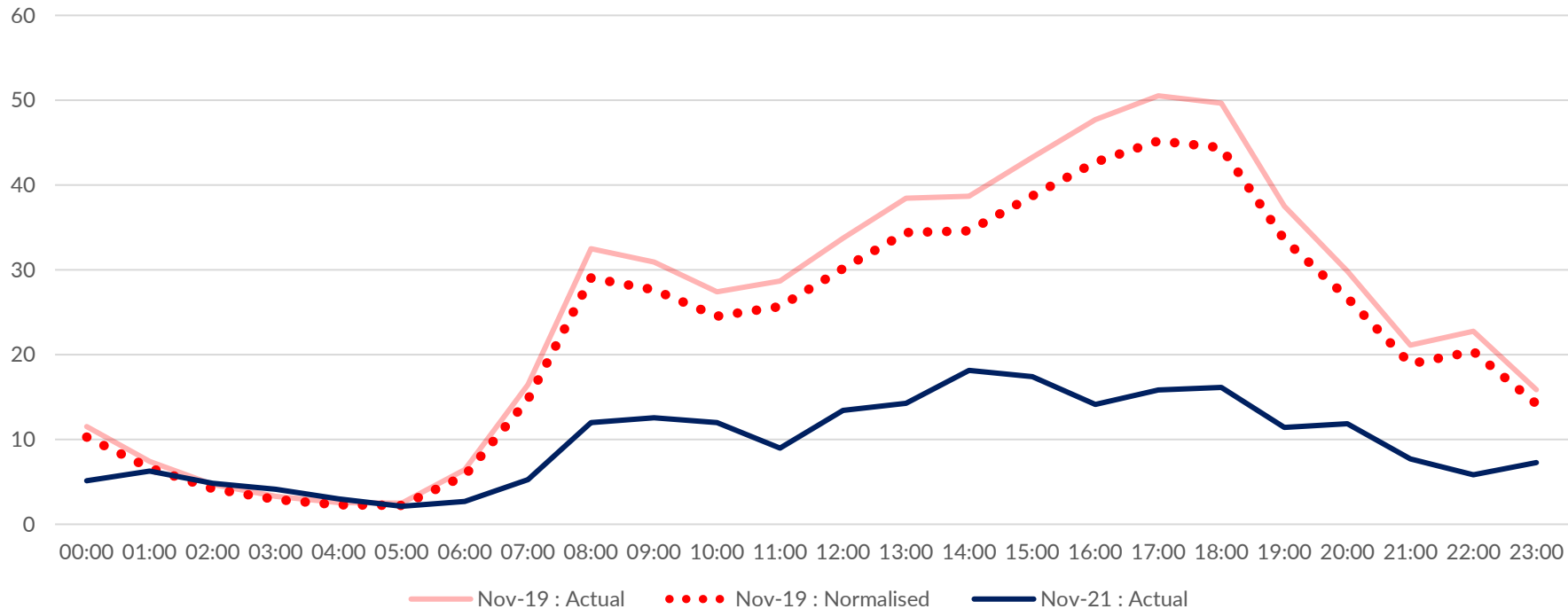
Ballater Road (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Ballater Road, showing the difference between Flow-adjusted pre-implementation flows from November 2019 and post-implementation flows from late November/early December 2021.
- As this site uses The Flow to derive pre-implementation data, the hour-by-hour profile of flows has been approximated using a nearby road based on the daily vehicle volumes provided by The Flow.

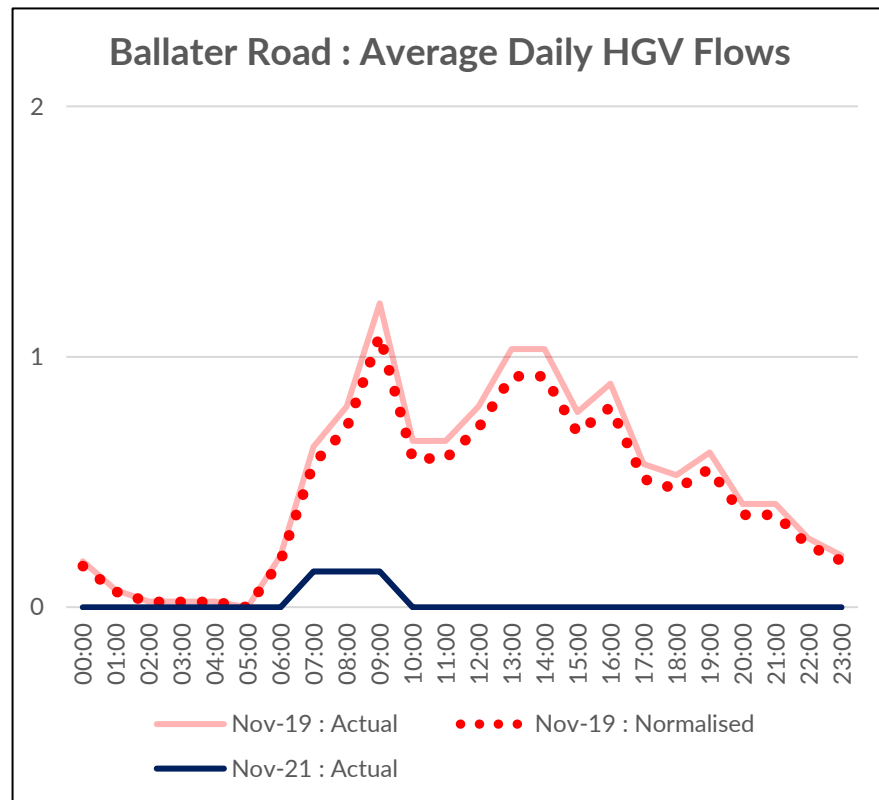
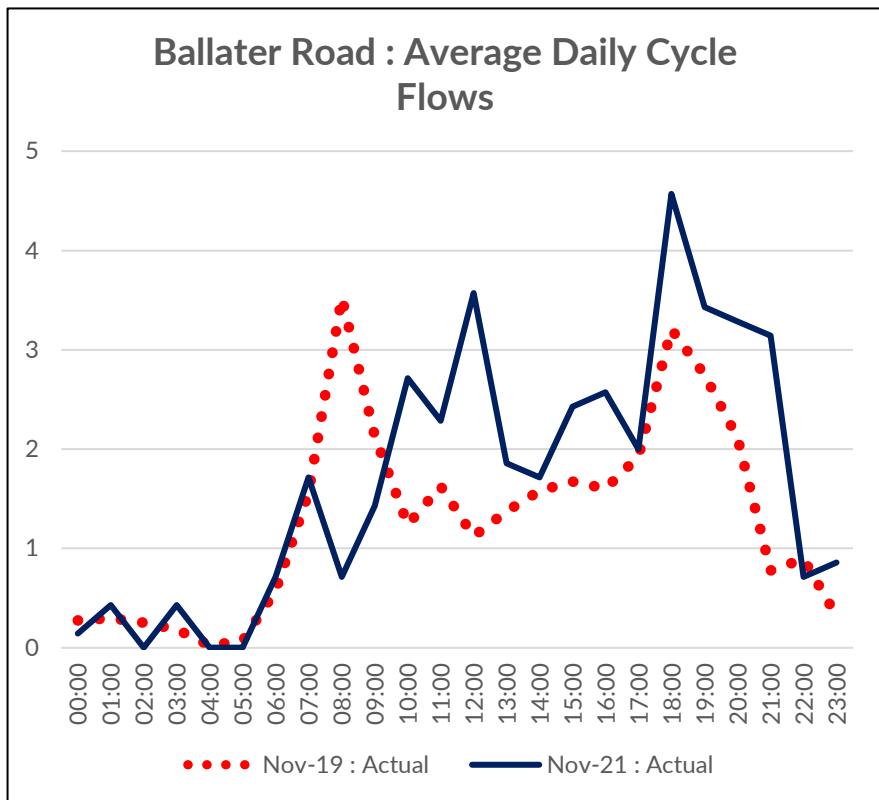


Ballater Road

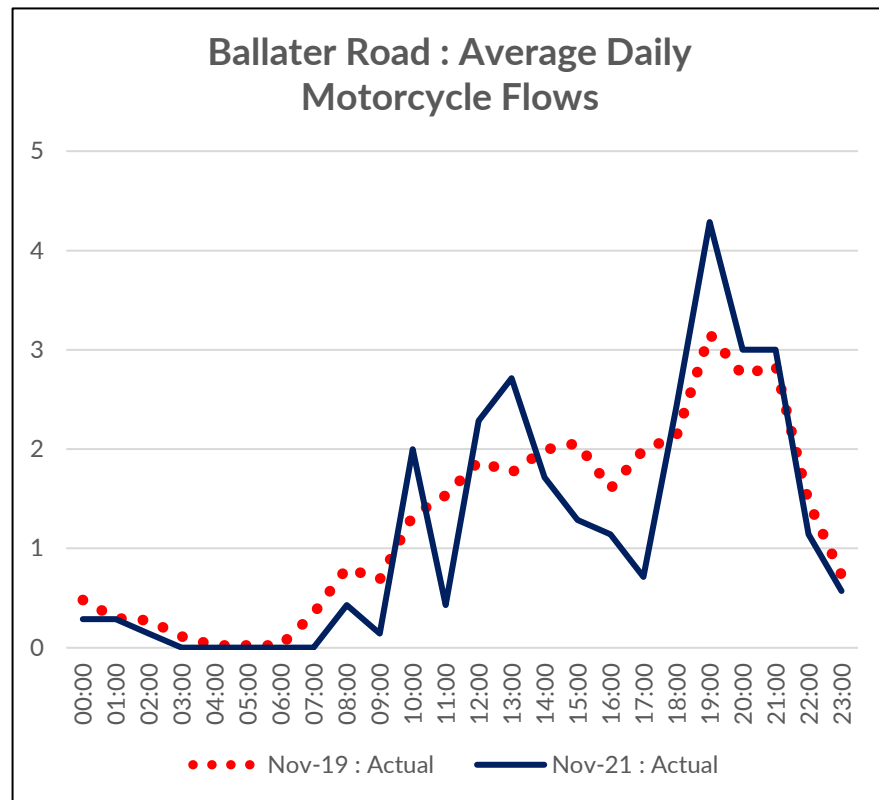
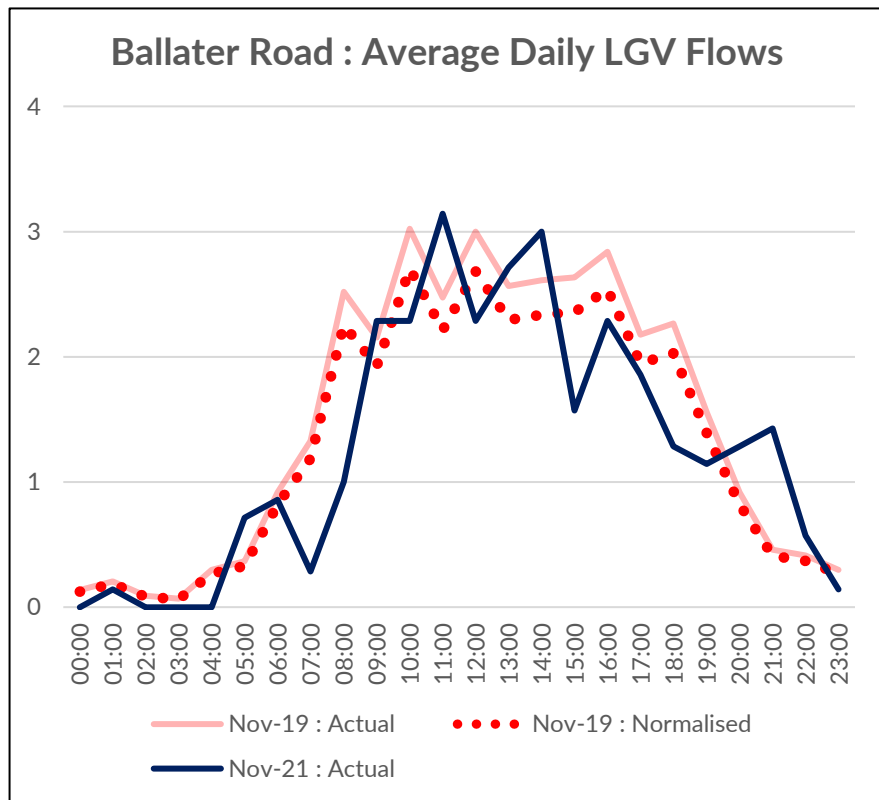
Ballater Road : Average Daily Car Flows



Ballater Road



Ballater Road

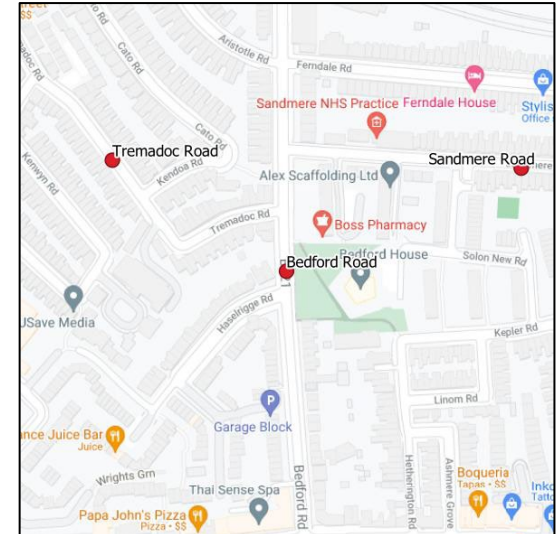
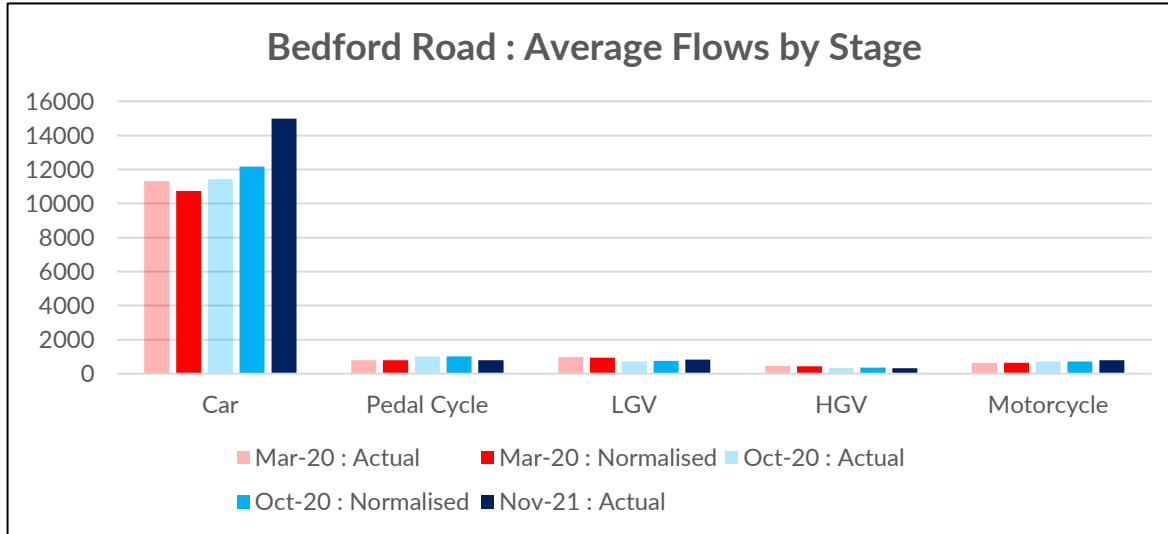


Ballater Road - Summary Table

	Nov-19 : Actual	Nov-19 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	604	540	233	233	-371	-61%	-307	-57%
Cycle	31	31	41	41	10	31%	10	31%
HGV	12	11	0	0	-12	-96%	-10	-96%
LGV	35	32	30	30	-5	-14%	-1	-4%
Motorcycles	30	30	28	28	-2	-8%	-2	-8%
Total Motorised Vehicles	651	582	263	263	-388	-60%	-319	-55%

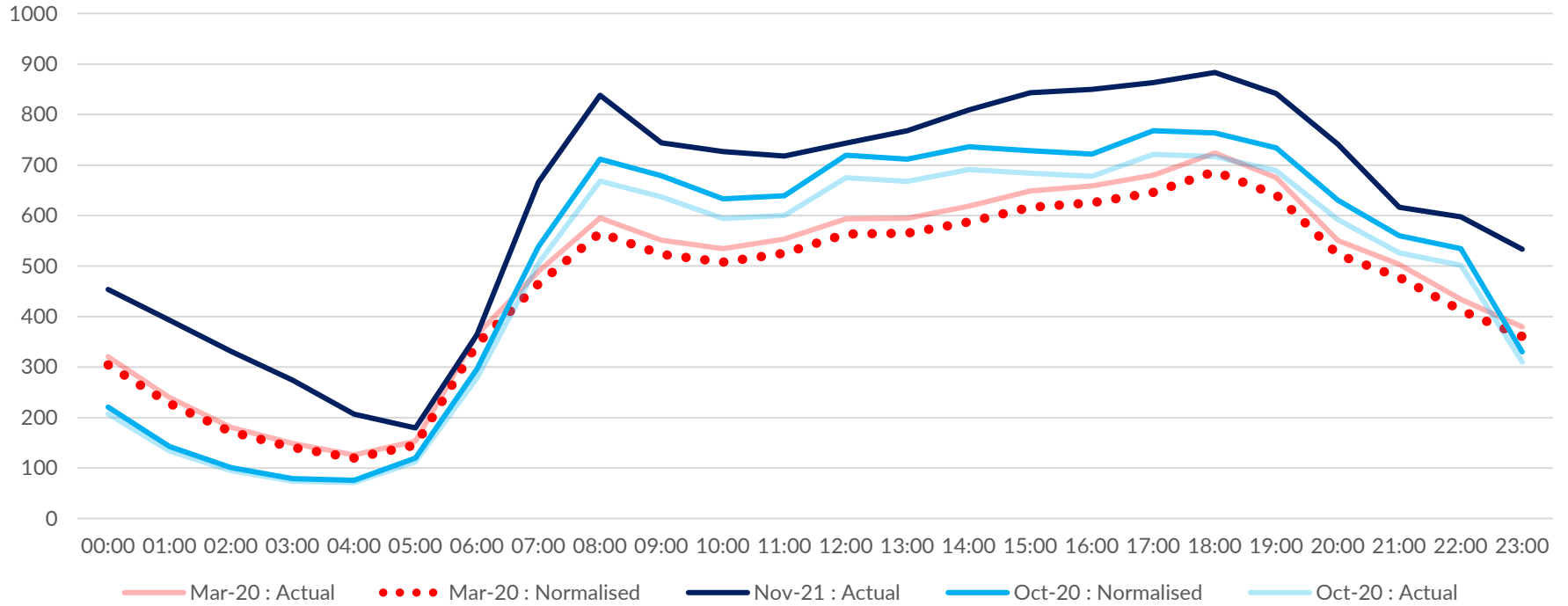
Bedford Road (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Bedford Road, showing the difference between pre-implementation flows collected in early March 2020 and post-implementation flows from October 2020 and from late November/early December 2021.

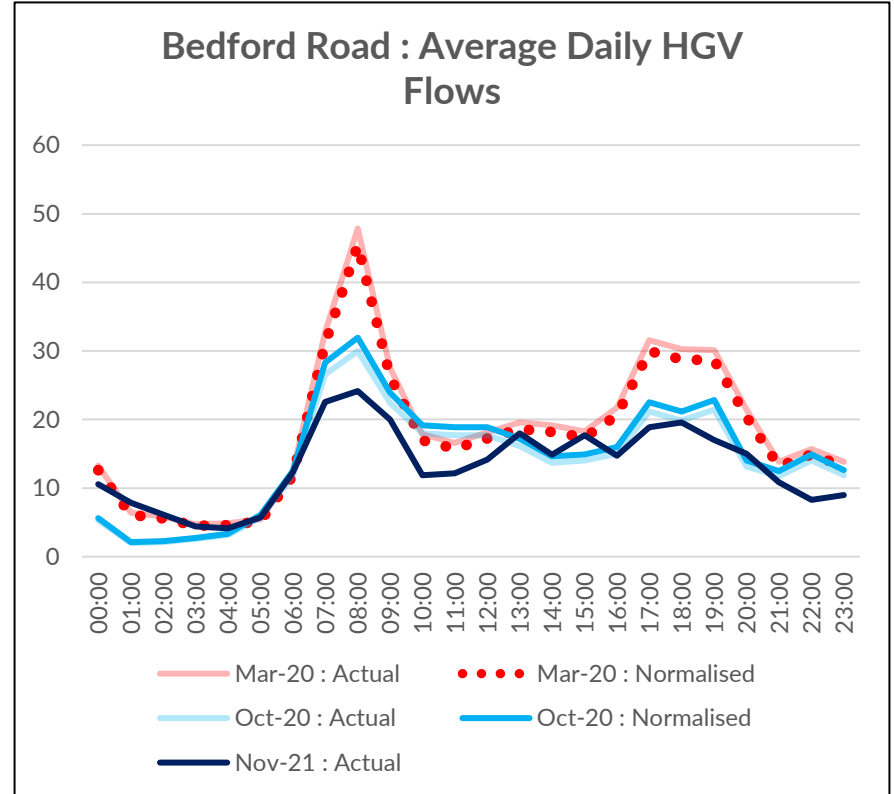
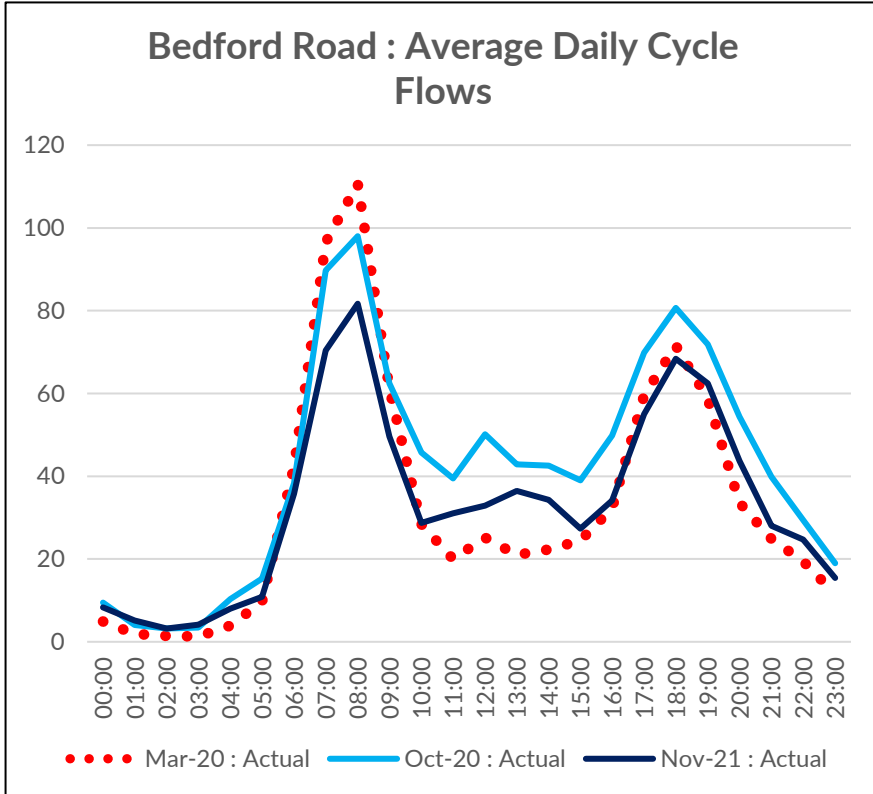


Bedford Road

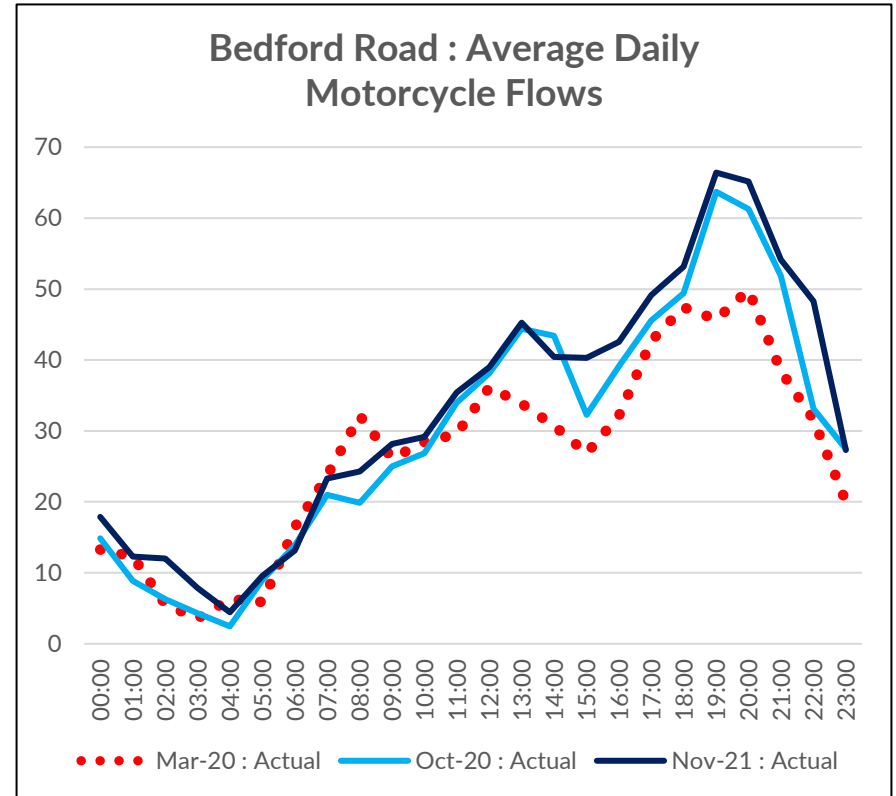
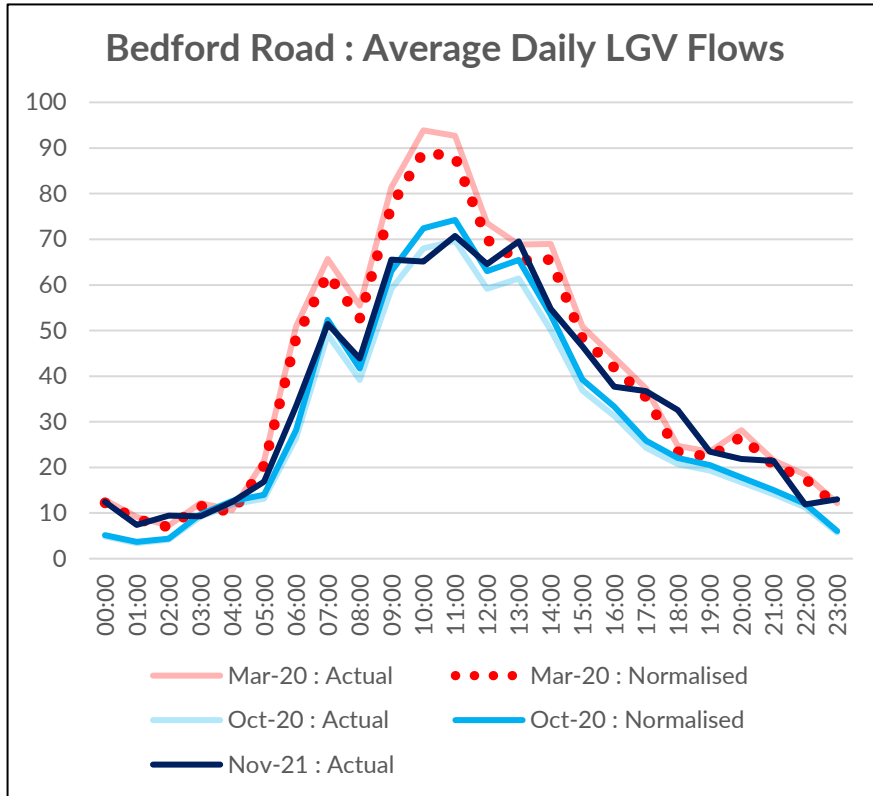
Bedford Road : Average Daily Car Flows



Bedford Road



Bedford Road

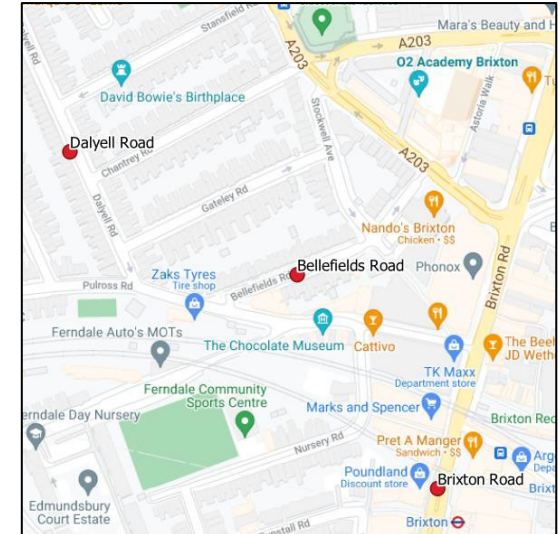
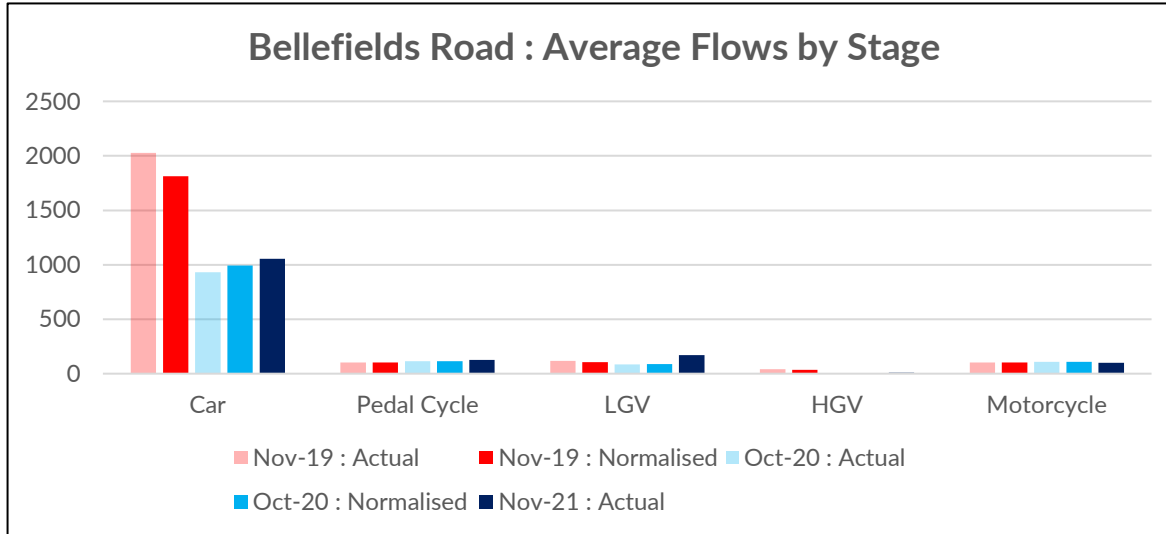


Bedford Road - Summary Table

	Mar-20 : Actual	Mar-20 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Mar-20 -> Oct-20 : Actual Difference	Mar-20 -> Oct-20 : Actual % Difference	Mar-20 -> Oct-20 : Normalised Difference	Mar-20 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Mar-20 -> Nov-21 : Actual Difference	Mar-20 -> Nov-21 : Actual % Difference	Mar-20 -> Nov-21 : Normalised Difference	Mar-20 -> Nov-21 : Normalised % Difference
Car	11,317	10,748	11,428	12,176	111	1%	1,427	13%	14,986	14,986	3,669	32%	4,238	39%
Cycle	787	787	1,009	1,009	222	28%	222	28%	799	799	13	2%	13	2%
HGV	449	427	337	359	-112	-25%	-68	-16%	320	320	-129	-29%	-107	-25%
LGV	986	936	709	756	-277	-28%	-181	-19%	832	832	-154	-16%	-104	-11%
Motorcycles	639	639	716	716	77	12%	77	12%	789	789	150	23%	150	23%
Total Motorised Vehicles	12,752	12,111	12,475	13,290	-278	-2%	1,179	10%	16,138	16,138	3,385	27%	4,027	33%

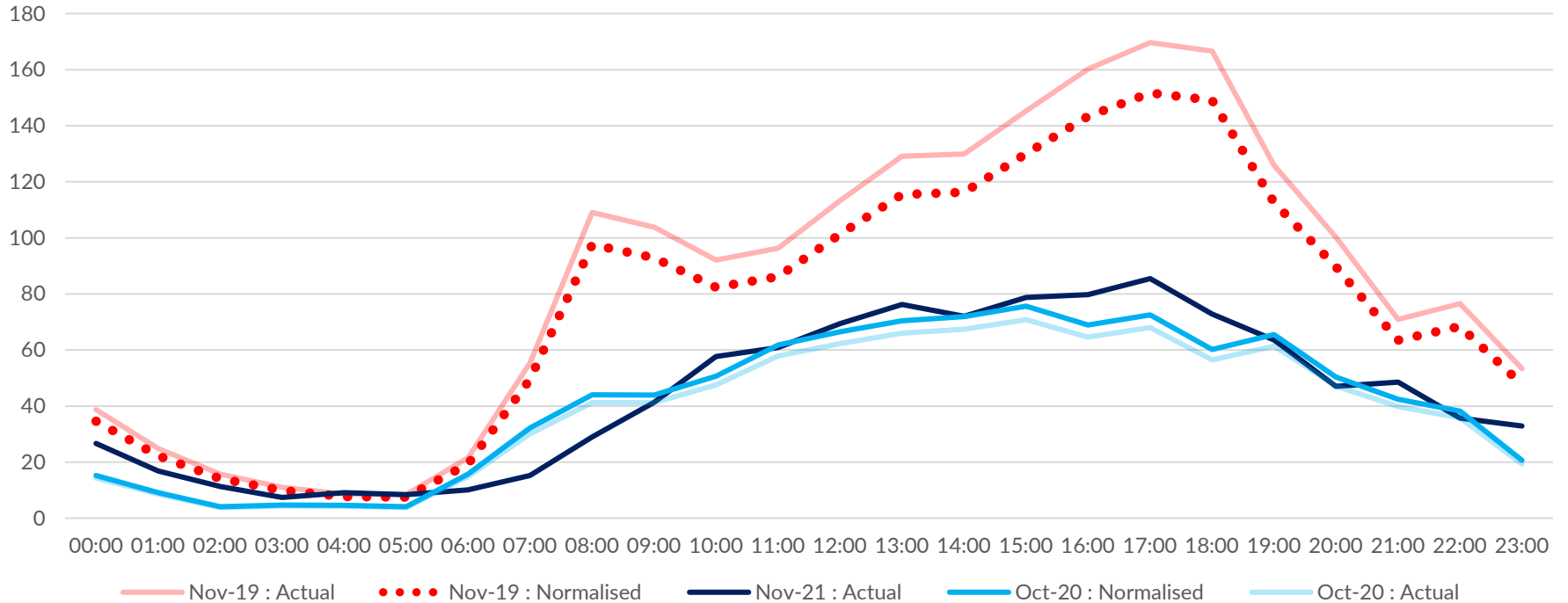
Bellefields Road (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Bellefields Road, showing the difference between Flow-adjusted pre-implementation flows from November 2019 and post-implementation flows from October 2020 and from late November/early December 2021.
- As this site uses The Flow to derive pre-implementation data, the hour-by-hour profile of flows has been approximated using a nearby road based on the daily vehicle volumes provided by The Flow.

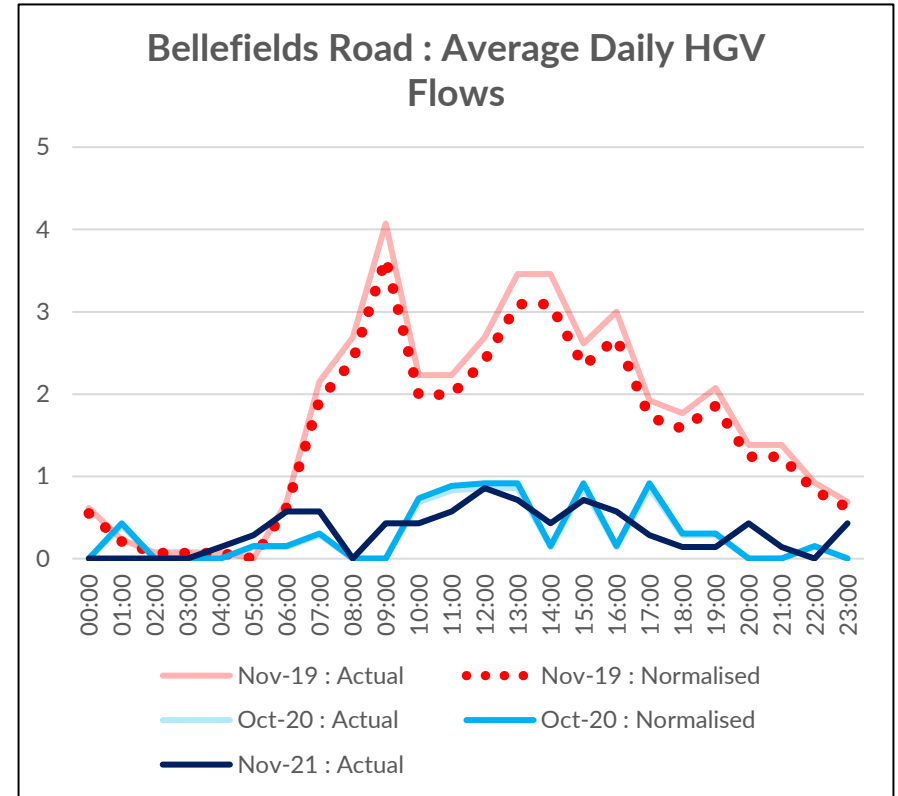
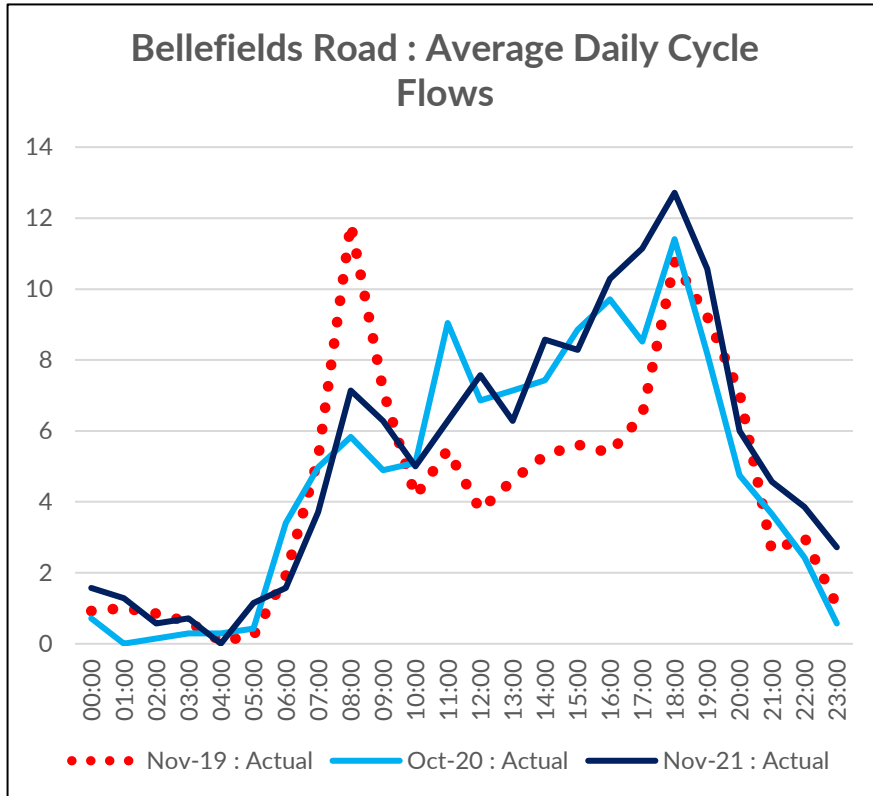


Bellefields Road

Bellefields Road : Average Daily Car Flows

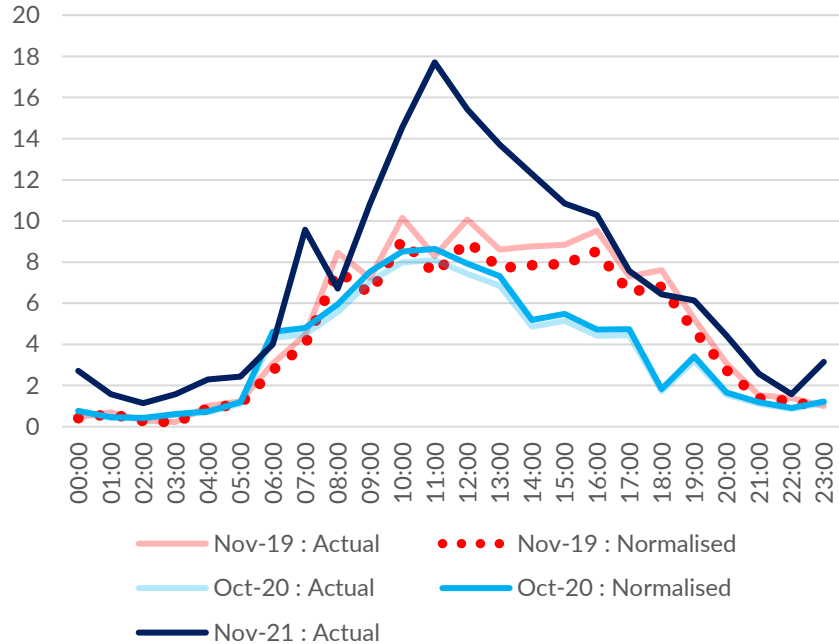


Bellefields Road

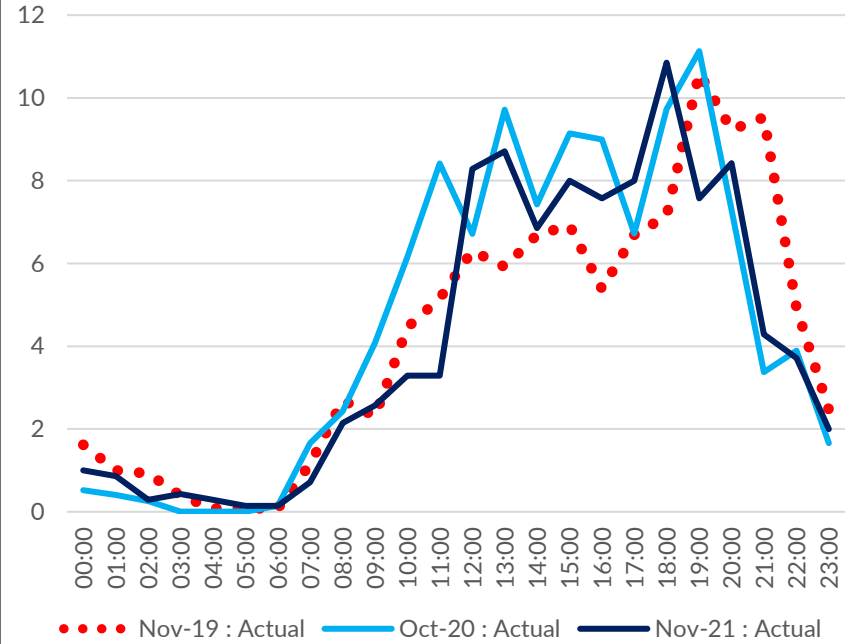


Bellefields Road

Bellefields Road : Average Daily LGV Flows



Bellefields Road : Average Daily Motorcycle Flows

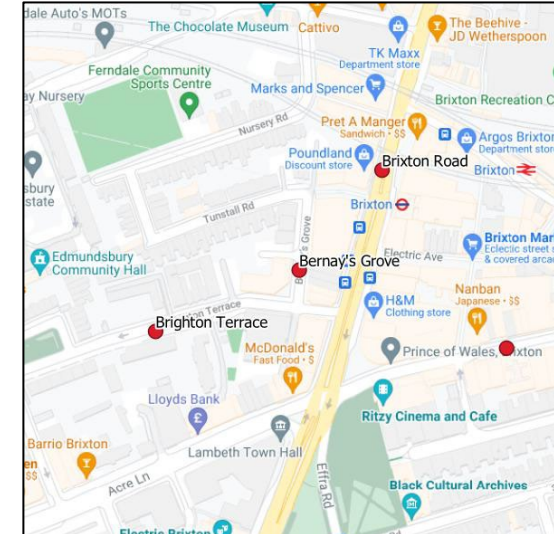
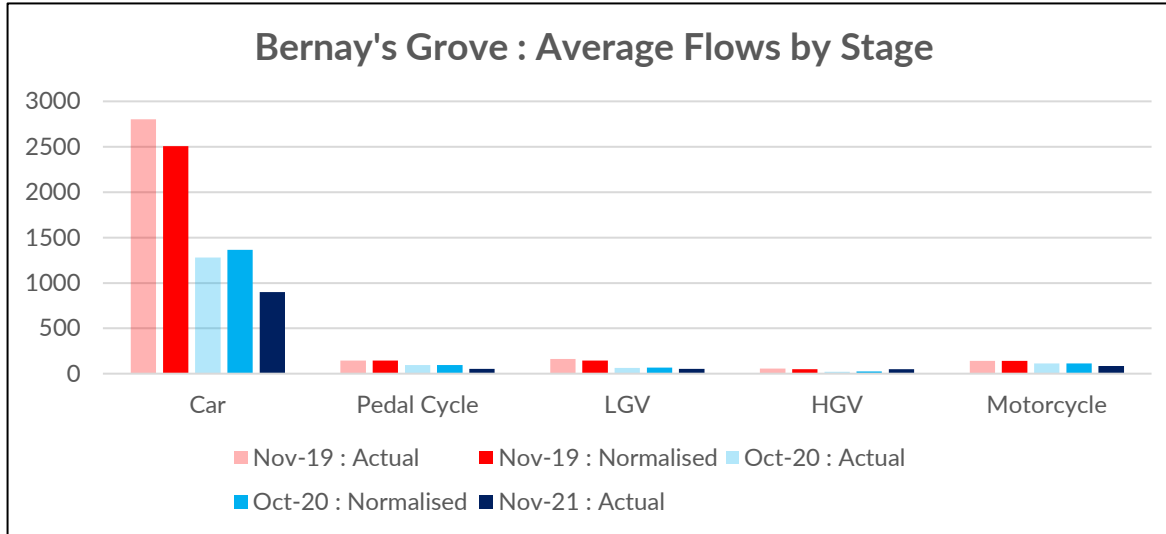


Bellefields Road - Summary Table

	Nov-19 : Actual	Nov-19 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Nov-19 -> Oct-20 : Actual Difference	Nov-19 -> Oct-20 : Actual % Difference	Nov-19 -> Oct-20 : Normalised Difference	Nov-19 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	2,027	1,813	931	994	-1,096	-54%	-820	-45%	1,056	1,056	-970	-48%	-757	-42%
Cycle	104	104	115	115	10	10%	10	10%	128	128	24	23%	24	23%
HGV	41	36	7	7	-34	-83%	-29	-80%	8	8	-33	-81%	-28	-78%
LGV	119	106	84	90	-34	-29%	-16	-15%	170	170	51	43%	64	60%
Motorcycles	102	102	110	110	8	8%	8	8%	99	99	-2	-2%	-2	-2%
Total Motorised Vehicles	2,186	1,955	1,022	1,091	-1,164	-53%	-865	-44%	1,234	1,234	-952	-44%	-722	-37%

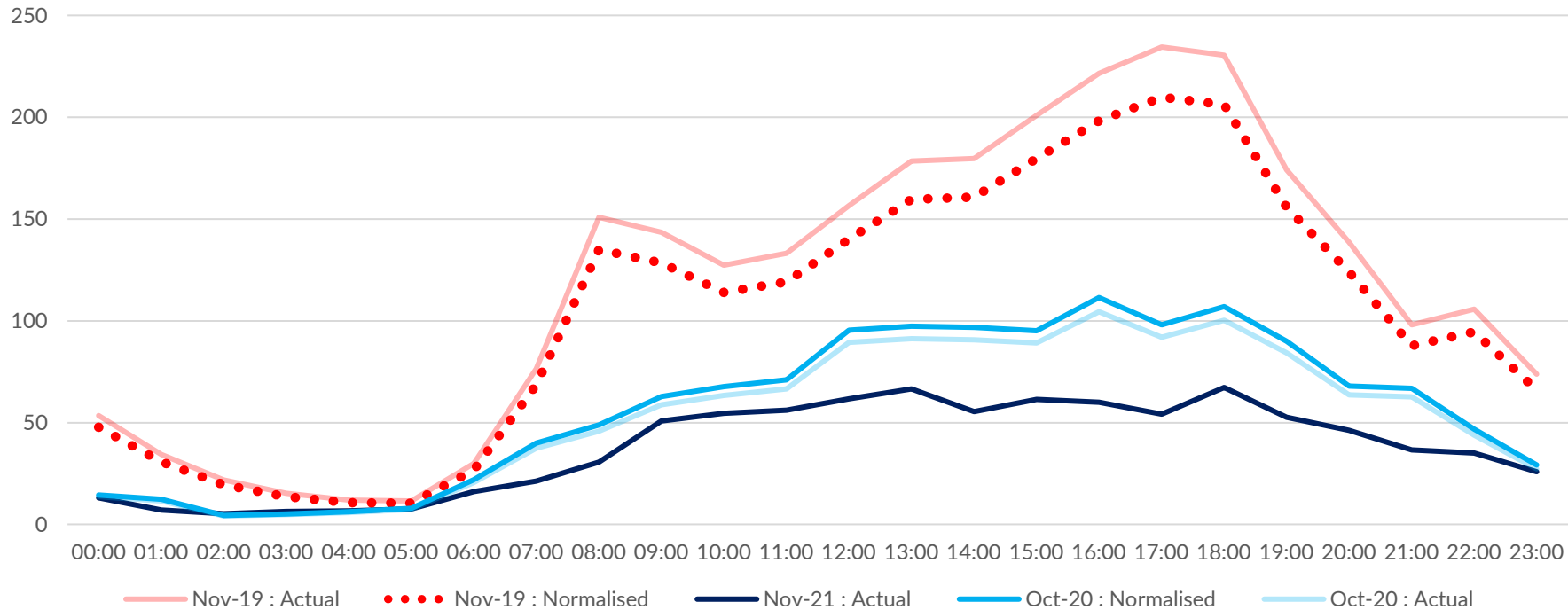
Bernay's Grove (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Bernay's Grove, showing the difference between Flow-adjusted pre-implementation flows from November 2019 and post-implementation flows from October 2020 and from late November/early December 2021.
- As this site uses The Flow to derive pre-implementation data, the hour-by-hour profile of flows has been approximated using a nearby road based on the daily vehicle volumes provided by The Flow.

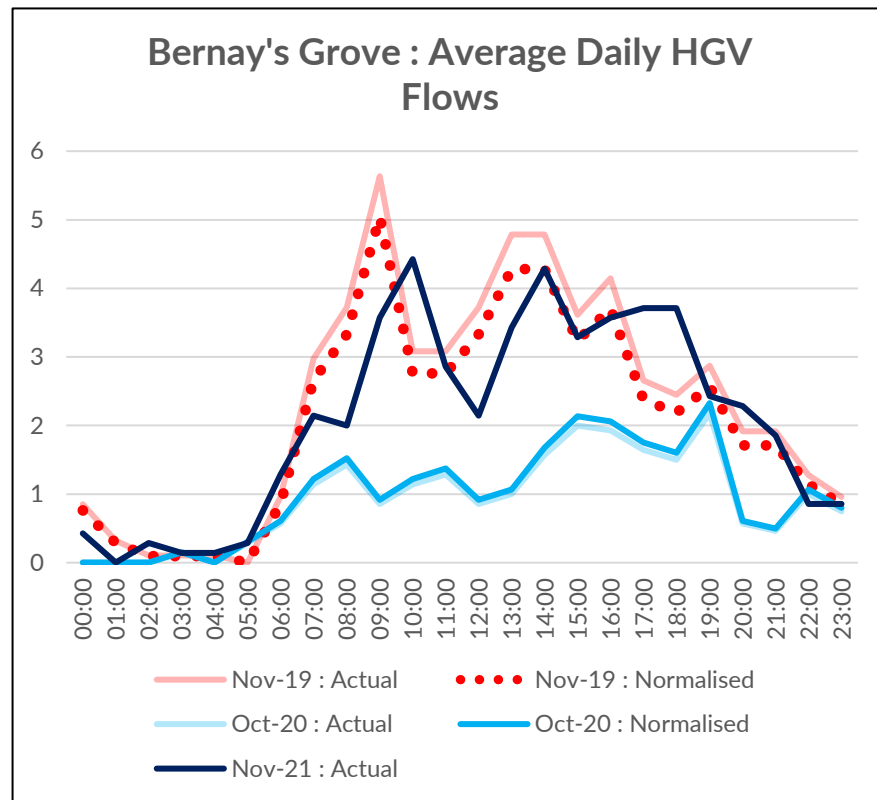
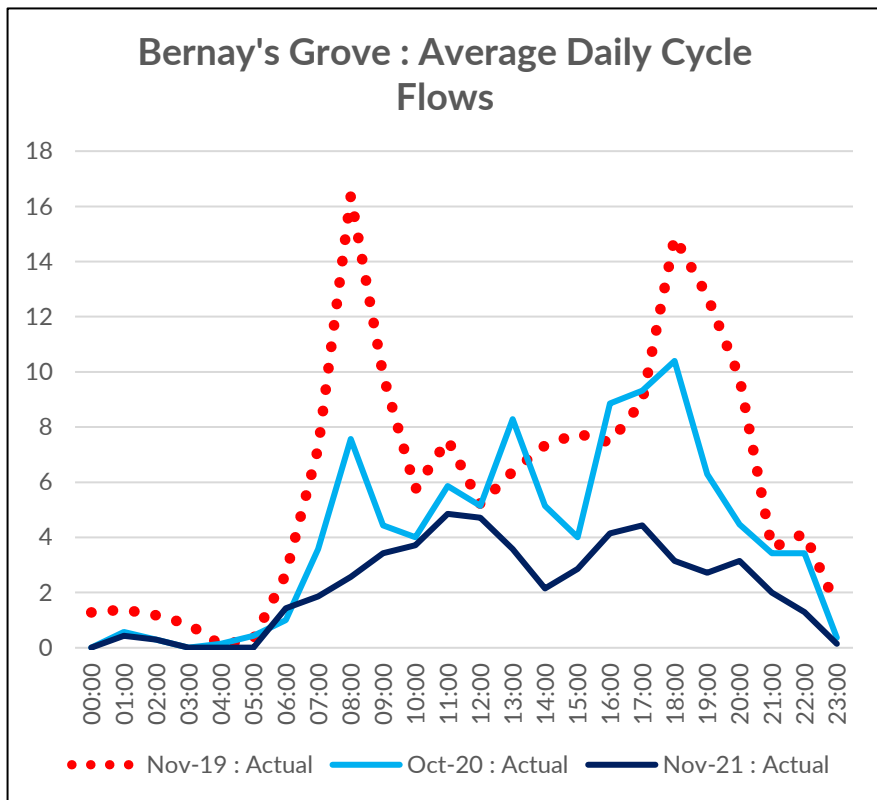


Bernay's Grove

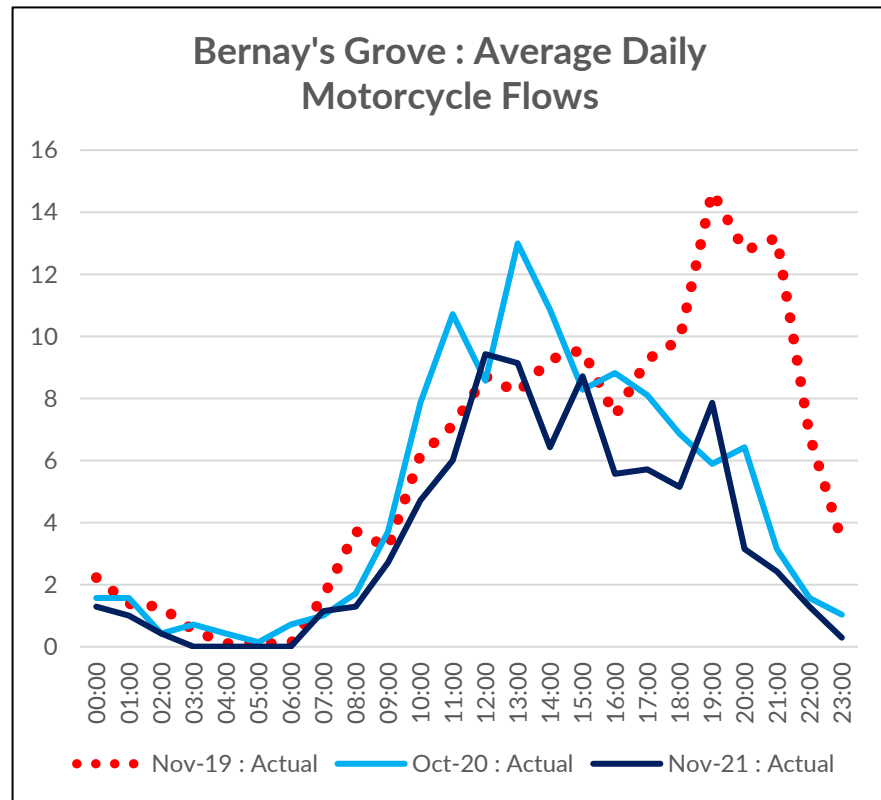
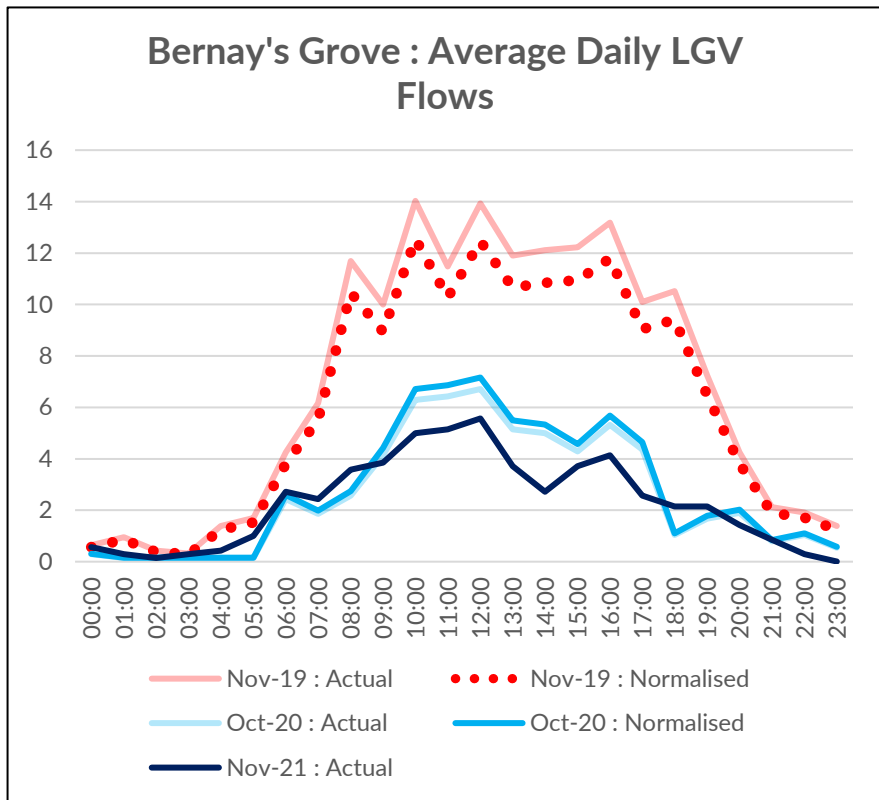
Bernay's Grove : Average Daily Car Flows



Bernay's Grove



Bernay's Grove

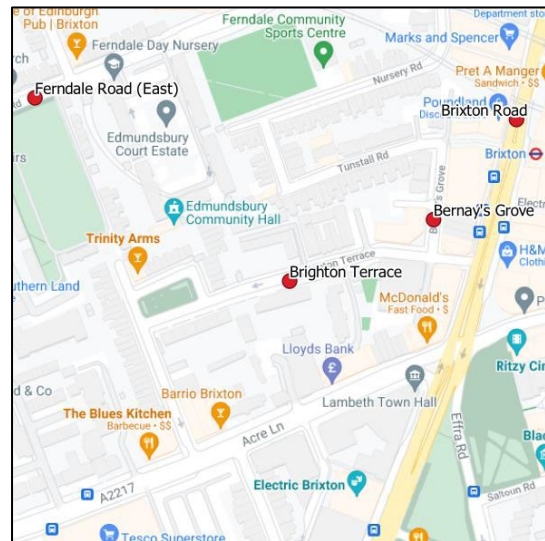
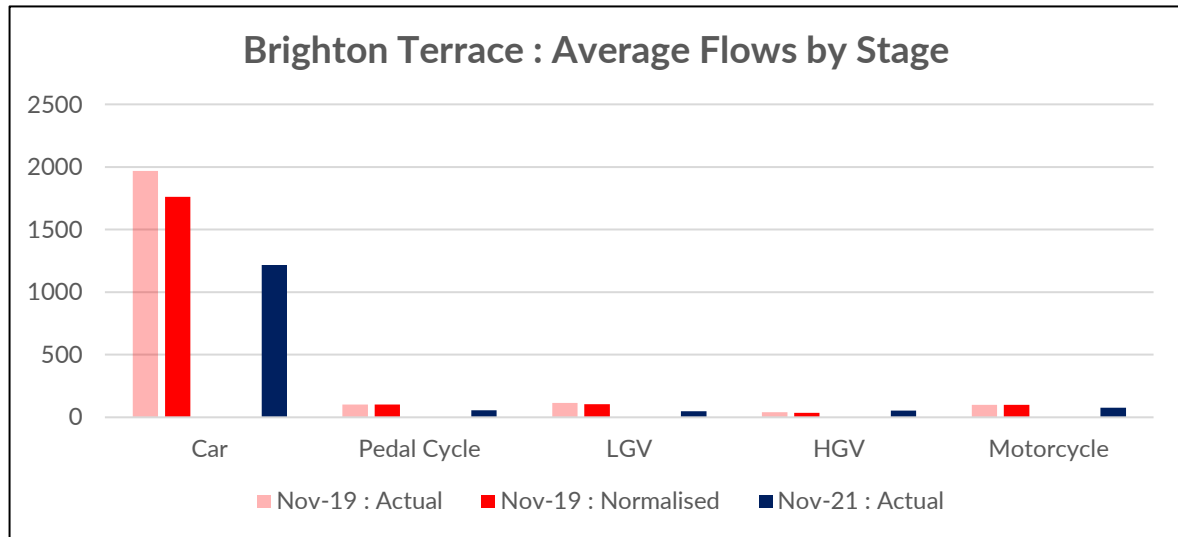


Bernay's Grove - Summary Table

	Nov-19 : Actual	Nov-19 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Nov-19 -> Oct-20 : Actual Difference	Nov-19 -> Oct-20 : Actual % Difference	Nov-19 -> Oct-20 : Normalised Difference	Nov-19 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	2,803	2,508	1,279	1,365	-1,524	-54%	-1,142	-46%	899	899	-1,904	-68%	-1,608	-64%
Cycle	144	144	97	97	-47	-33%	-47	-33%	53	53	-91	-63%	-91	-63%
HGV	56	50	22	24	-34	-60%	-26	-52%	50	50	-6	-11%	0	0%
LGV	164	147	63	67	-101	-62%	-80	-55%	55	55	-109	-67%	-92	-63%
Motorcycles	141	141	113	113	-28	-20%	-28	-20%	84	84	-57	-40%	-57	-40%
Total Motorised Vehicles	3,023	2,704	1,364	1,456	-1,659	-55%	-1,249	-46%	1,004	1,004	-2,019	-67%	-1,701	-63%

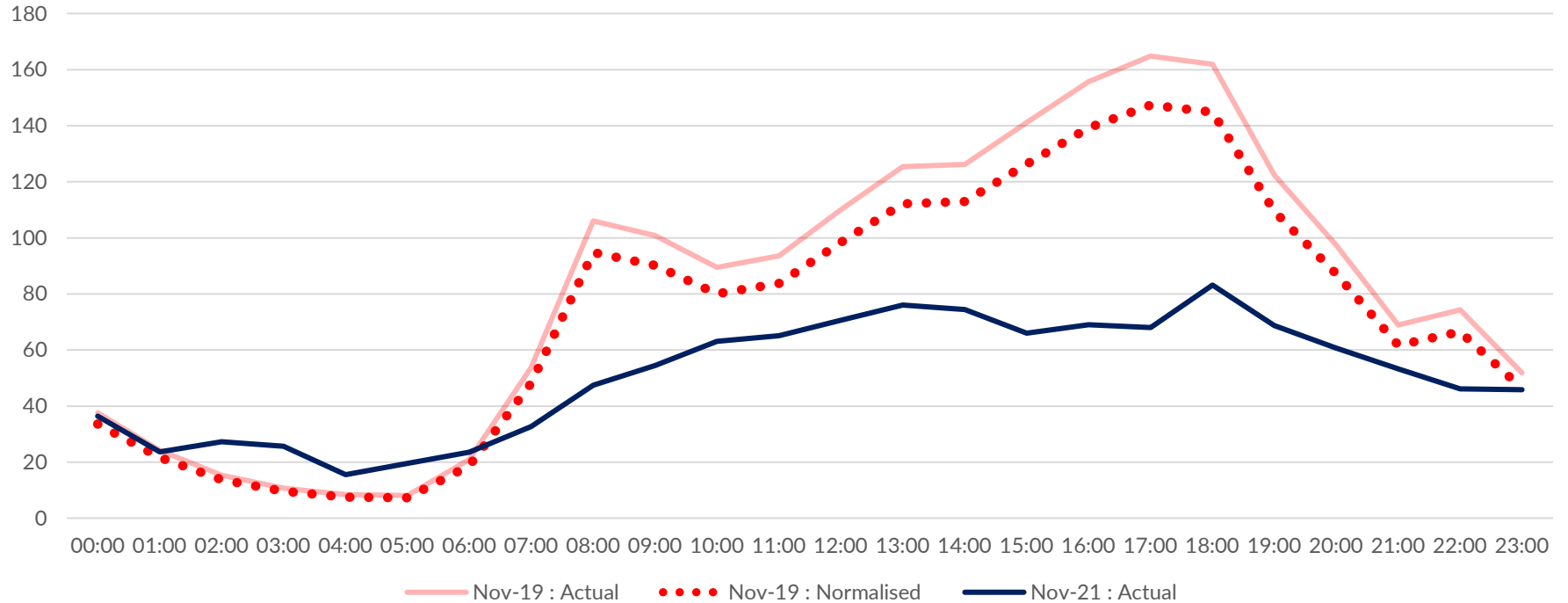
Brighton Terrace (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Brighton Terrace, showing the difference between Flow-adjusted pre-implementation flows from November 2019 and post-implementation flows from late November/early December 2021.

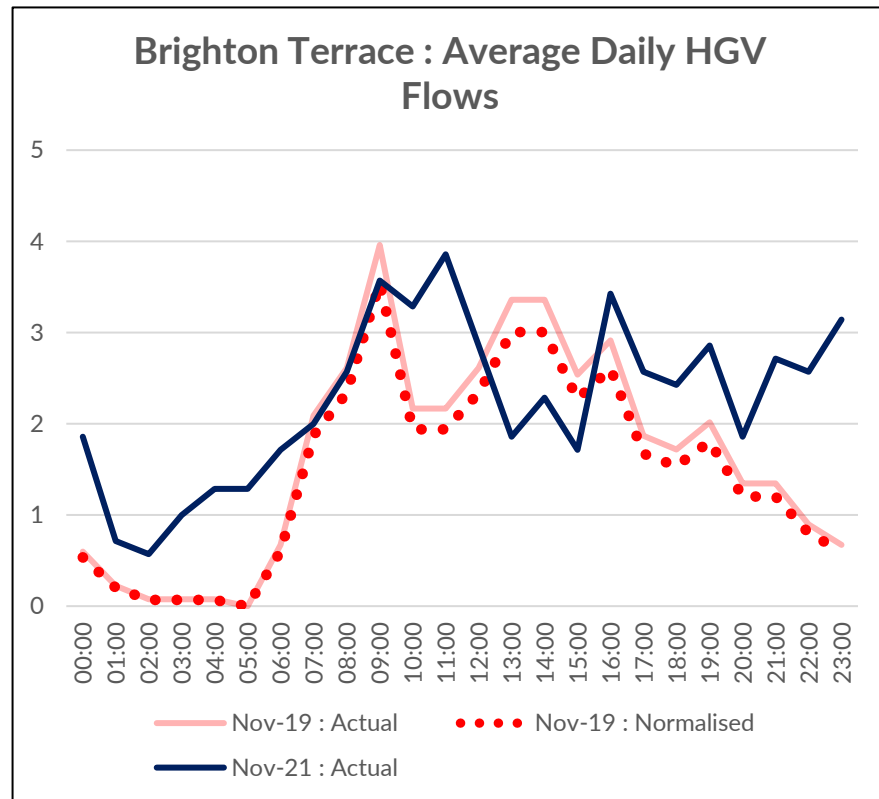
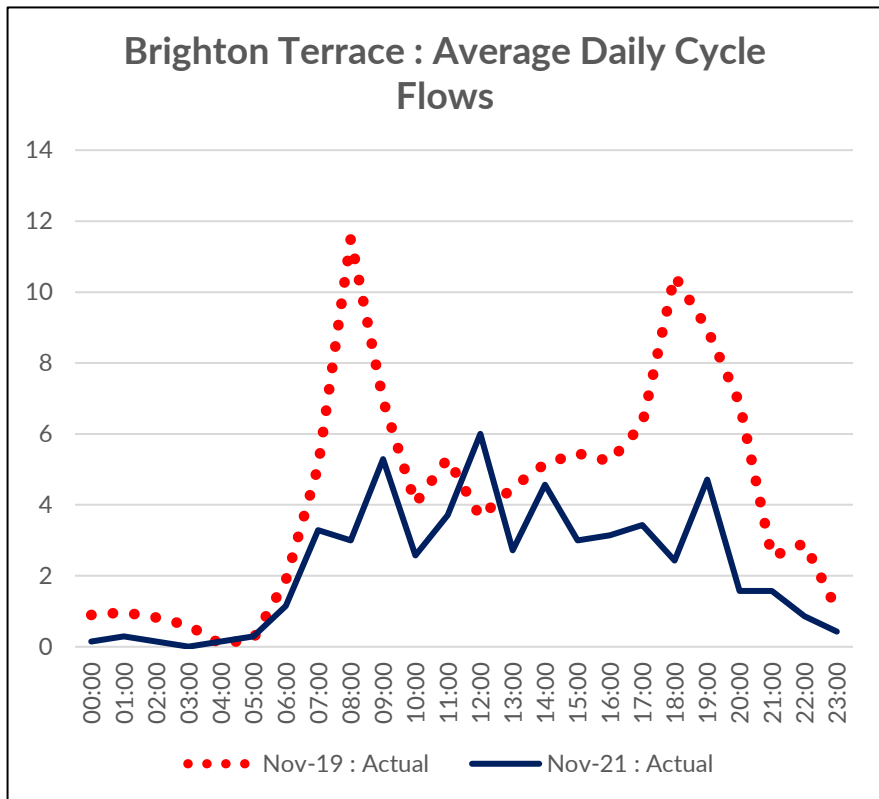


Brighton Terrace

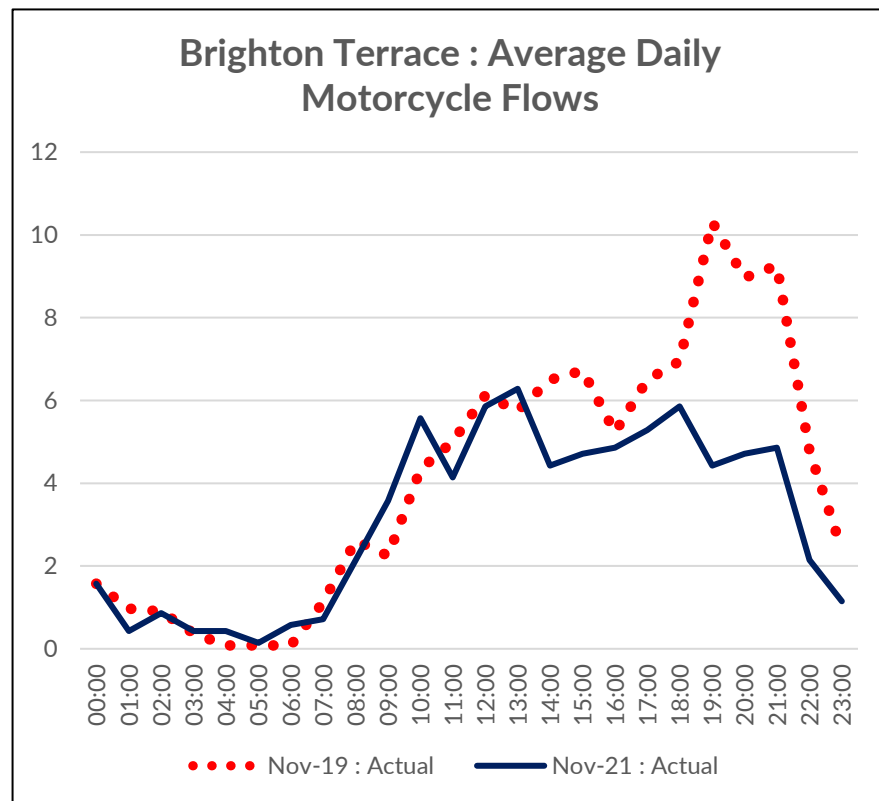
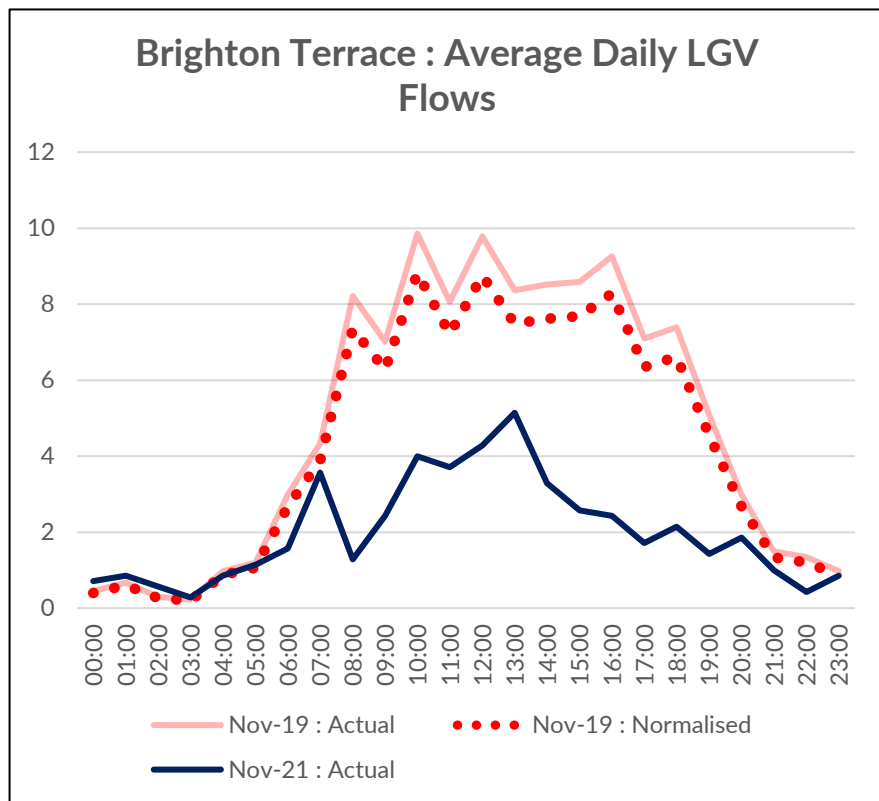
Brighton Terrace : Average Daily Car Flows



Brighton Terrace



Brighton Terrace

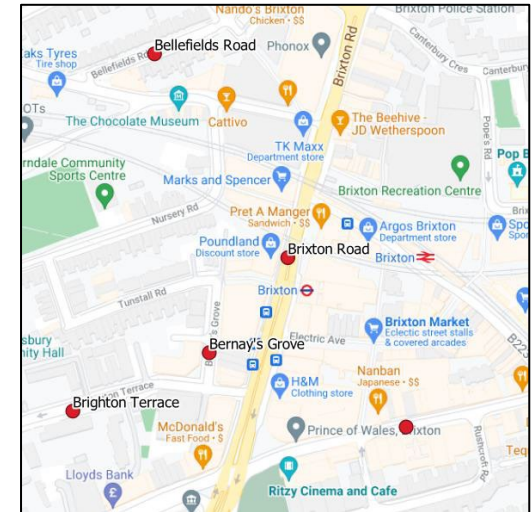


Brighton Terrace - Summary Table

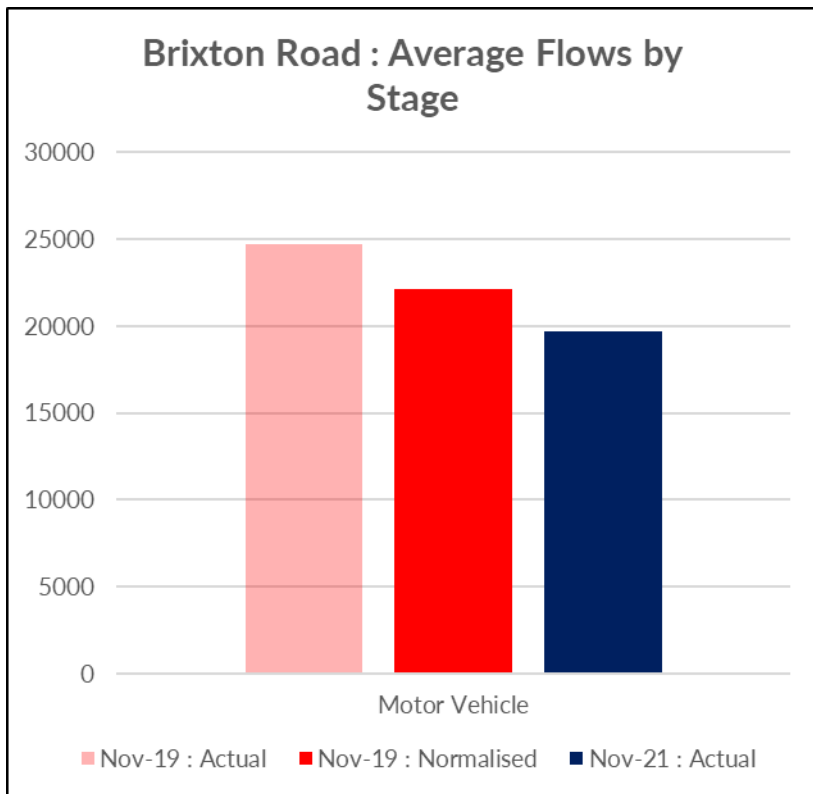
	Nov-19 : Actual	Nov-19 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	1,969	1,762	1,217	1,217	-753	-38%	-545	-31%
Cycle	101	101	54	54	-47	-46%	-47	-46%
HGV	39	35	54	54	15	37%	19	53%
LGV	115	103	48	48	-67	-58%	-55	-53%
Motorcycles	99	99	75	75	-24	-24%	-24	-24%
Total Motorised Vehicles	2,124	1,900	1,319	1,319	-805	-38%	-581	-31%

Brixton Road

- The chart and table on the following page present **average daily motor vehicle flows on Brixton Road**, showing the difference between pre-implementation flows derived from 2018/19 Flow averages and post-implementation flows from late November/early December 2021.
- Given extremely limited historic data, baseline counts for Brixton Road have been derived by taking the bidirectional Flow counts for the site (which only consider private vehicles) and applying an uplift factor to estimate the number of additional public vehicles (i.e. buses/taxis etc.) to define a baseline total. The uplift factor is defined as the average ratio between Flow counts and TfL ATC flows at two sites along the A23.
- Brixton Road is classified as part of the Transport for London Road Network (TLRN), on which ATC surveys are not permitted. As such, radar counts have therefore been used for Stage 2 – however, since radar surveys are less able to disaggregate between vehicle types, analysis has only been possible through comparing total motor vehicle numbers.
- Given the lack of dependable baseline data, manual count data from the Department for Transport has been sourced to create a sensitivity test for this site.



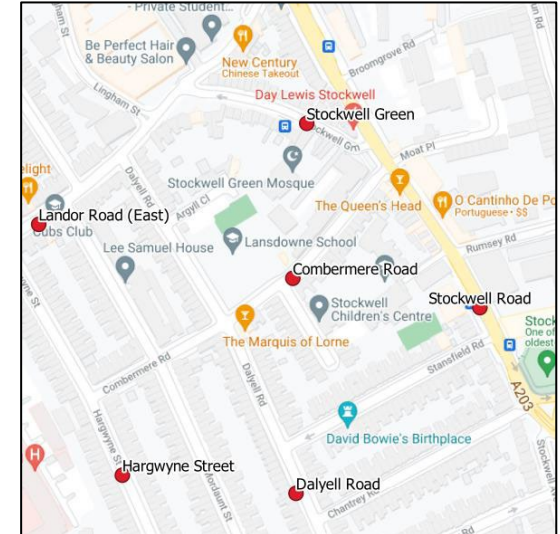
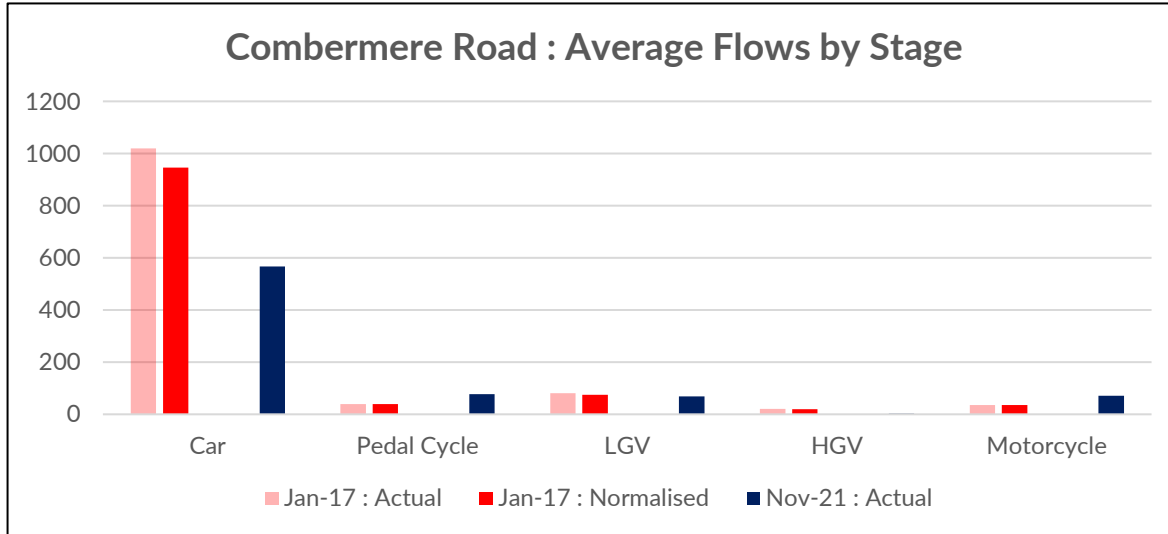
Brixton Road



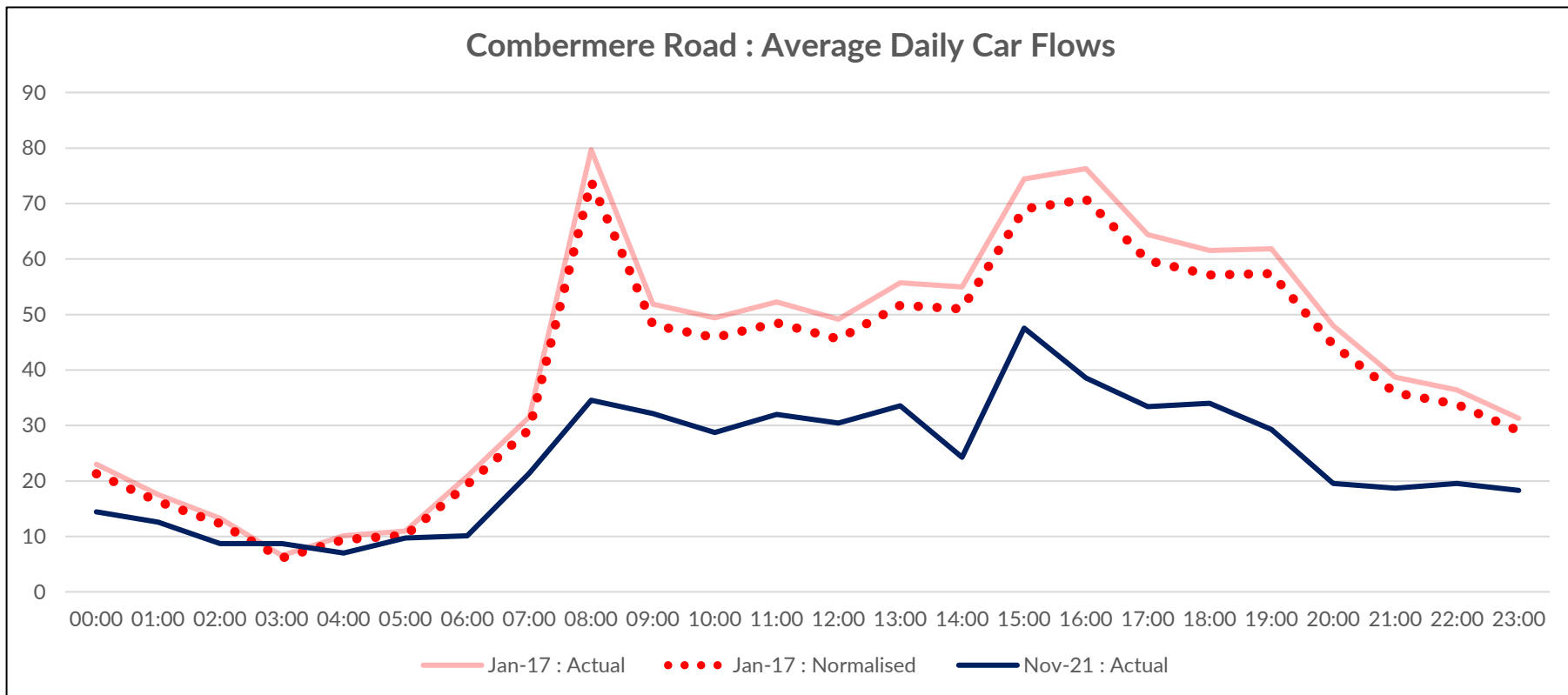
	Nov-19 : Actual	Nov-19 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Total Motorised Vehicles	24,728	22,123	19,709	19,709	-5,019	-20%	-2,413	-11%
Total Motorised Vehicles (DfT Sensitivity) ¹	28,905	26,096	19,709	19,709	-9,196	-32%	-6,387	-25%

Combermere Road (Daily Flows)

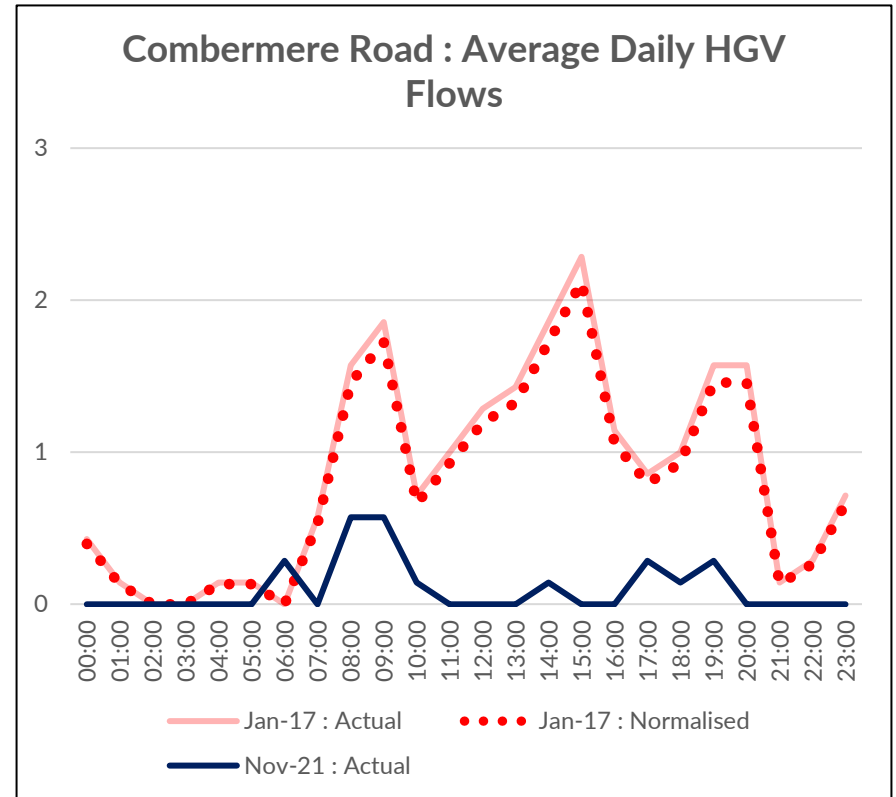
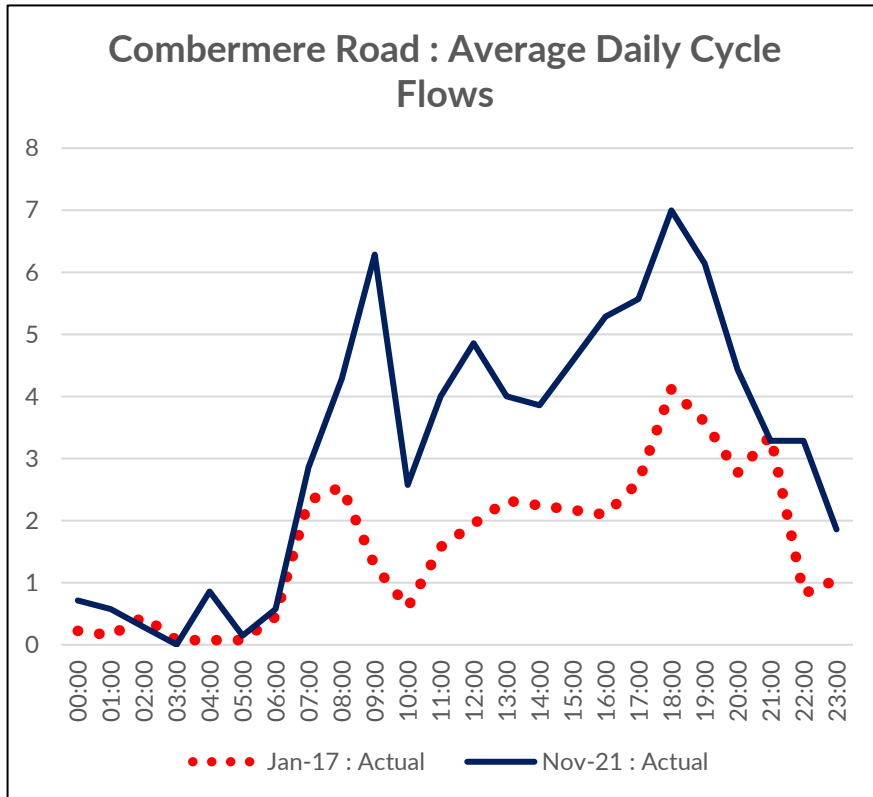
- The charts below and on the following pages show the normalised average daily flows on Combermere Road, showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from late November/early December 2021.



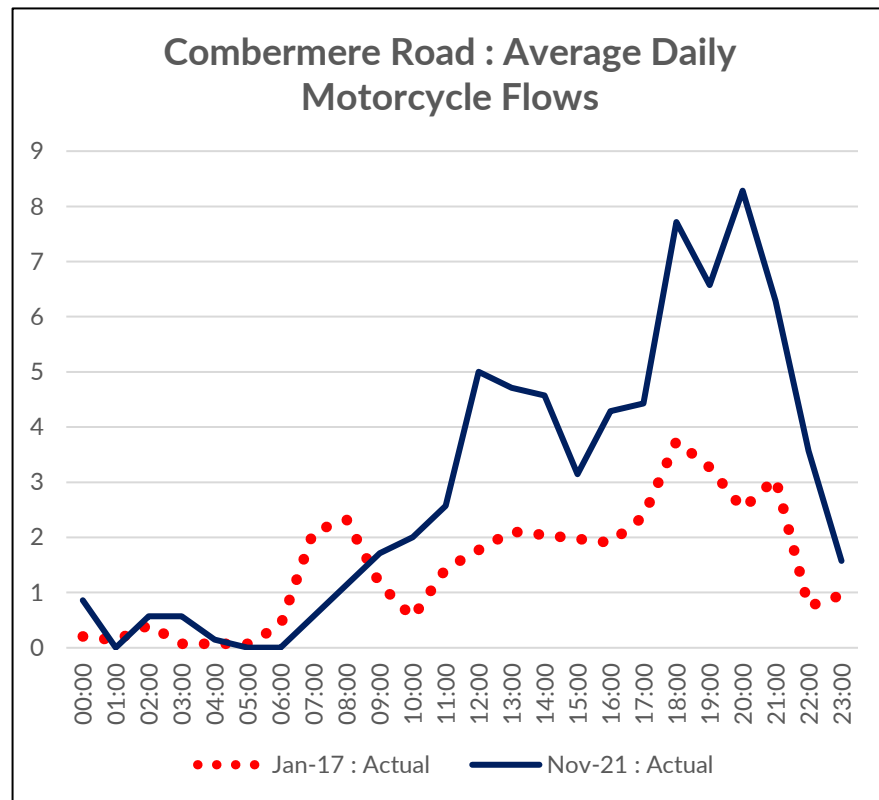
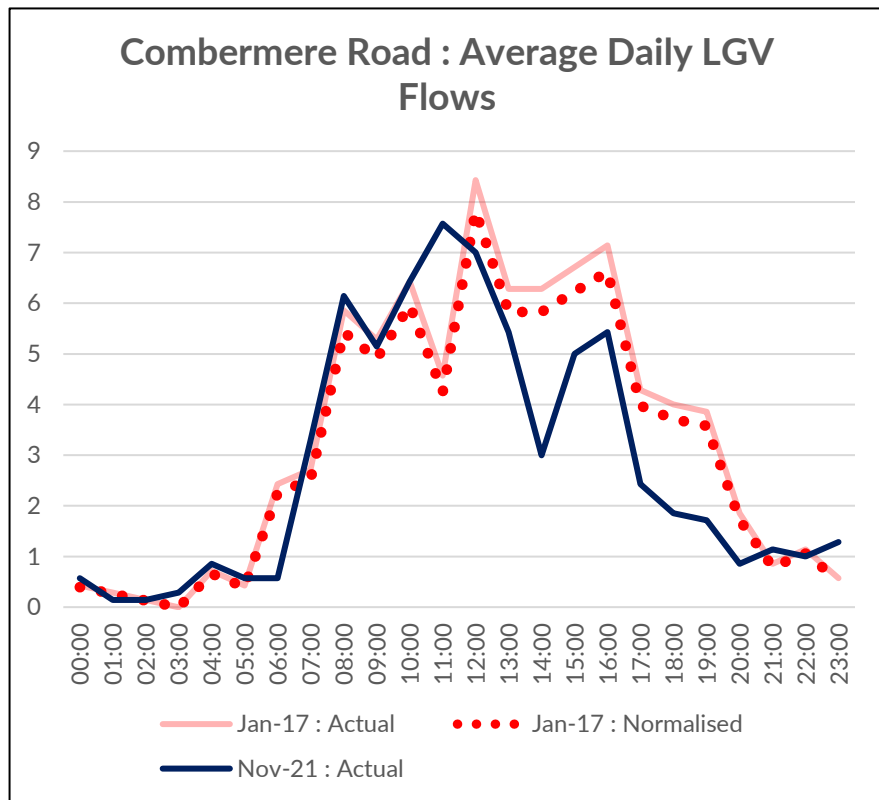
Combermere Road



Combermere Road



Combermere Road

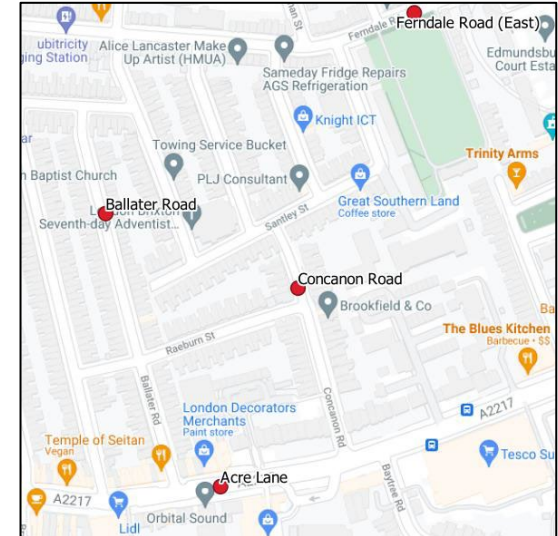
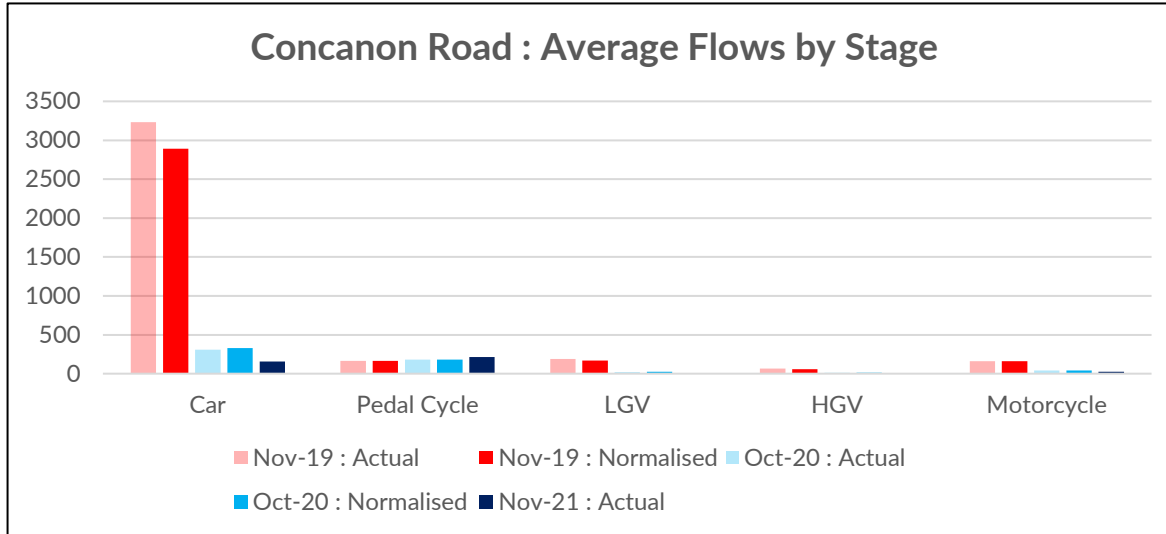


Combermere Road - Summary Table

	Jan-17 : Actual	Jan-17 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	1,020	946	567	567	-453	-44%	-379	-40%
Cycle	39	39	77	77	38	99%	38	99%
HGV	21	19	2	2	-18	-88%	-17	-87%
LGV	81	75	68	68	-13	-16%	-7	-9%
Motorcycles	35	35	70	70	35	99%	35	99%
Total Motorised Vehicles	1,122	1,040	638	638	-484	-43%	-403	-39%

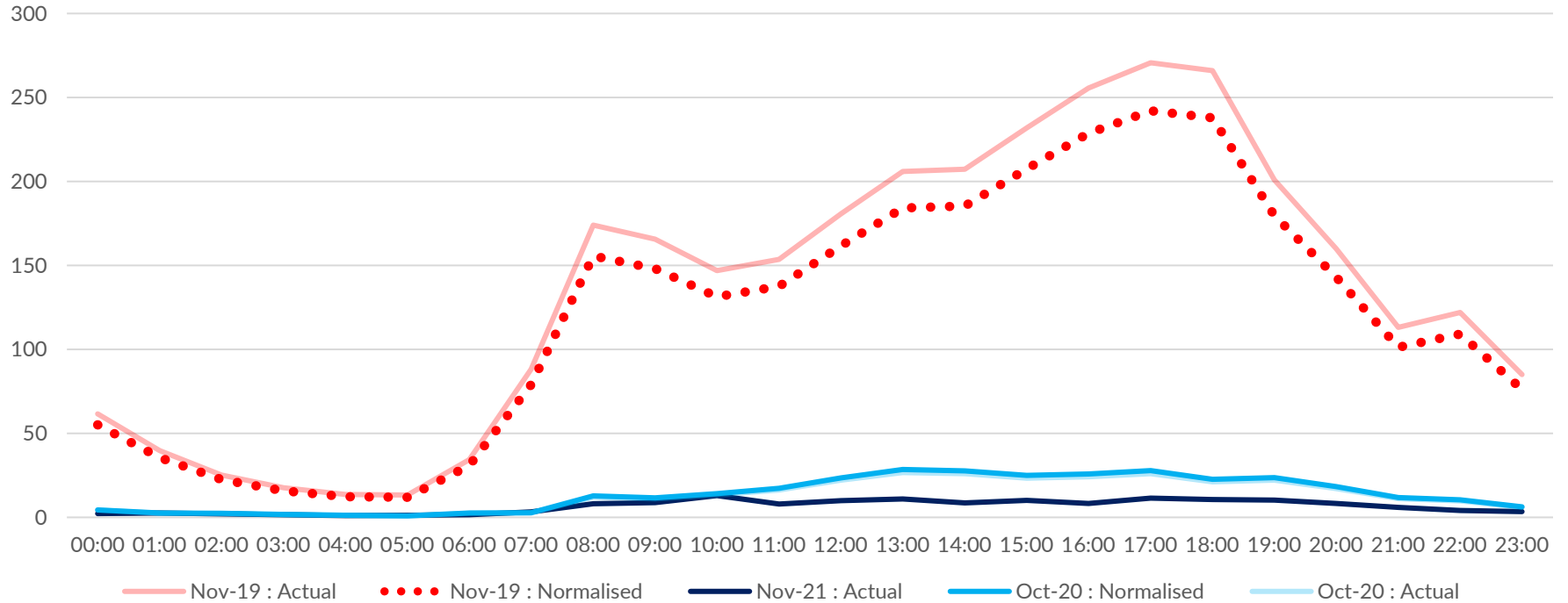
Concanon Road (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Concanon Road, showing the difference Flow-adjusted pre-implementation flows from November 2019 and post-implementation flows from October 2020 and from late November/early December 2021.
- As this site uses The Flow to derive pre-implementation data, the hour-by-hour profile of flows has been approximated using a nearby road based on the daily vehicle volumes provided by The Flow.

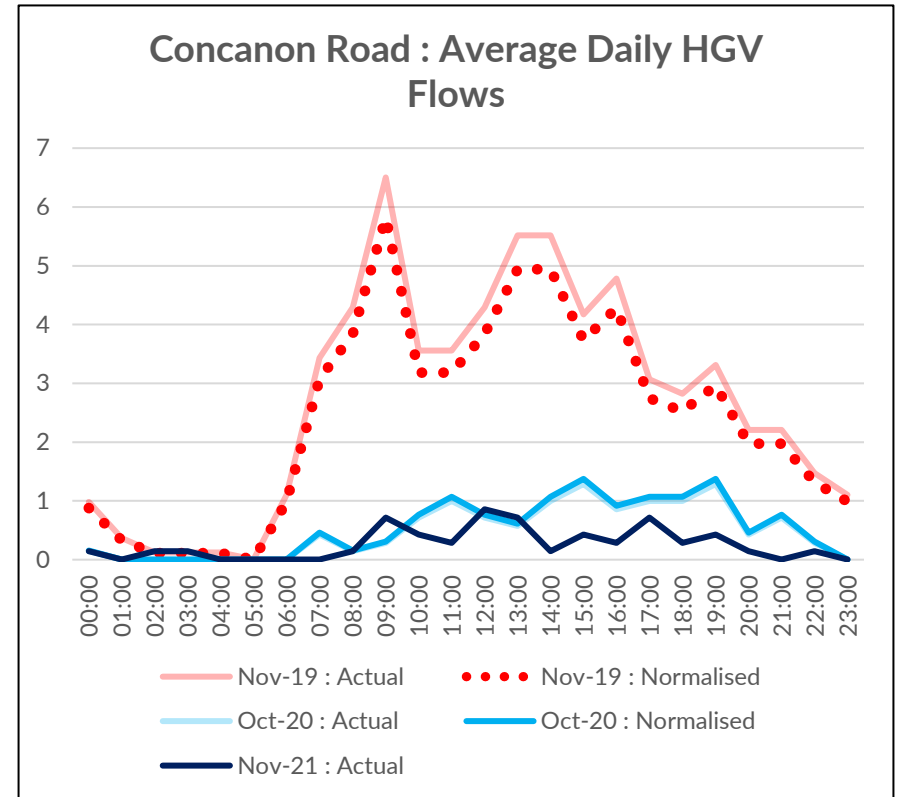
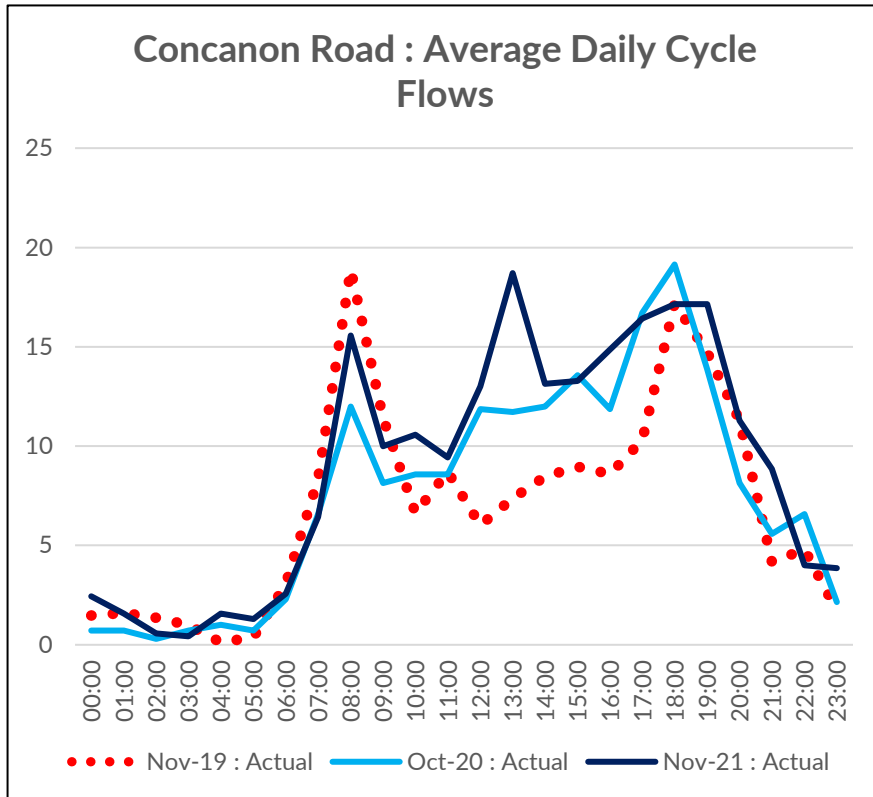


Concanon Road

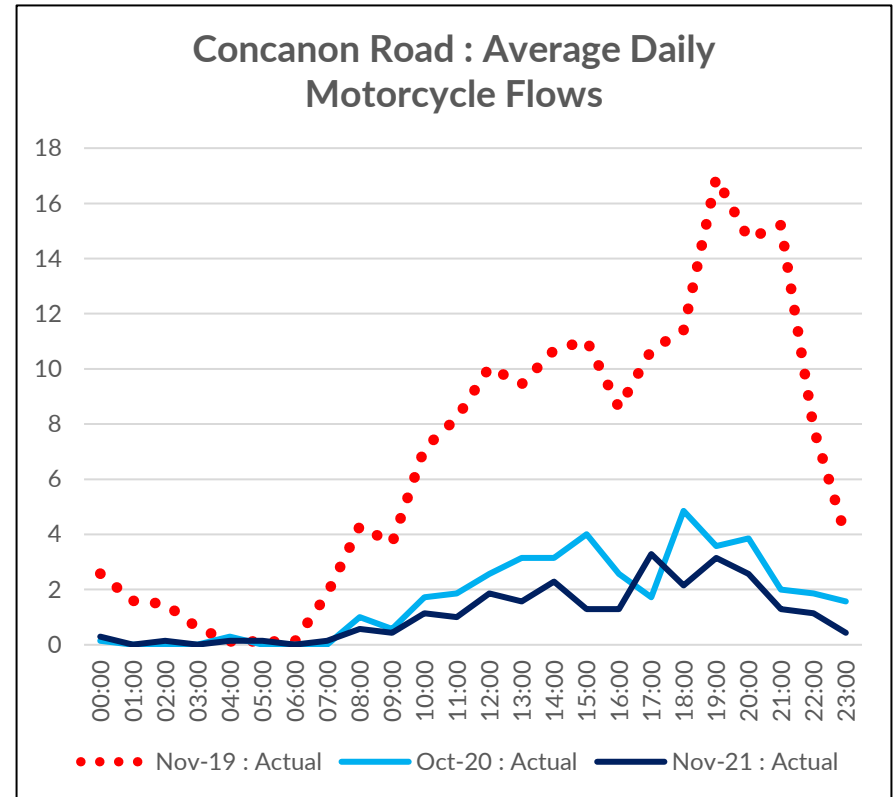
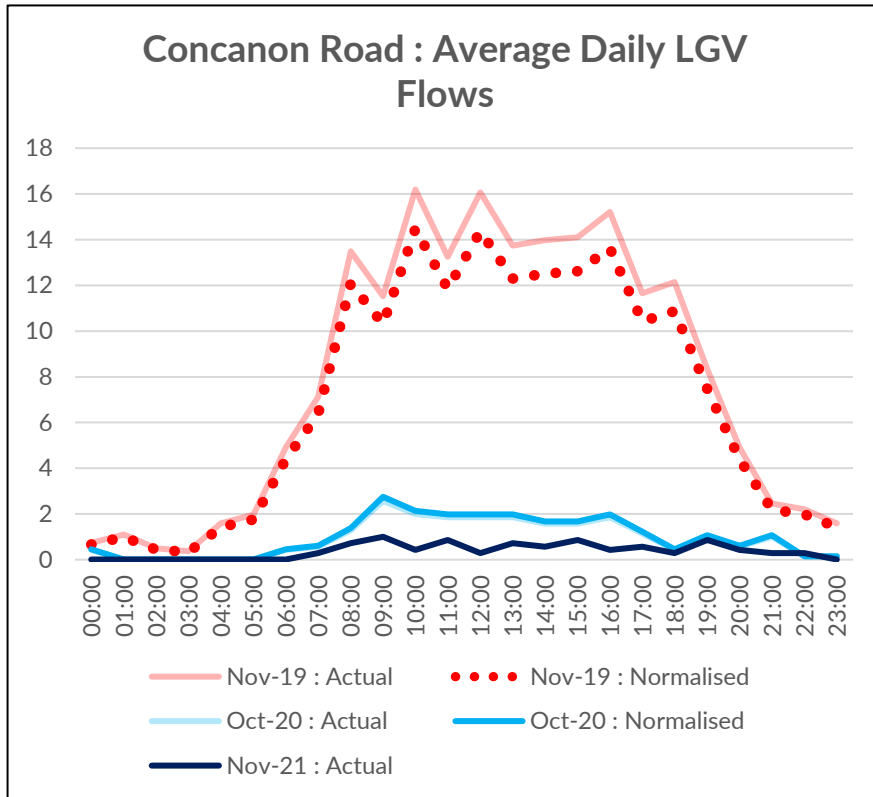
Concanon Road : Average Daily Car Flows



Concanon Road



Concanon Road

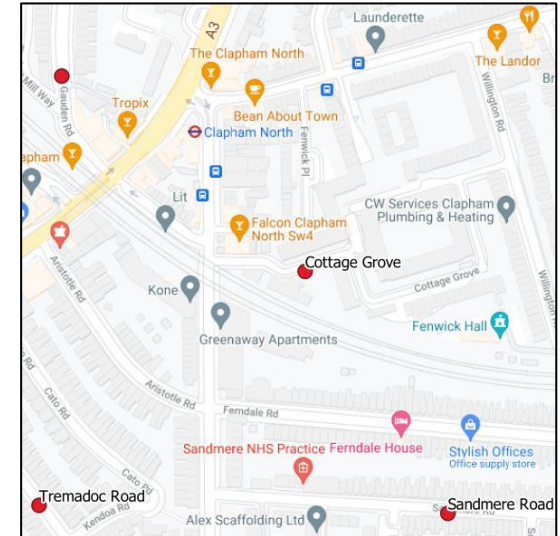
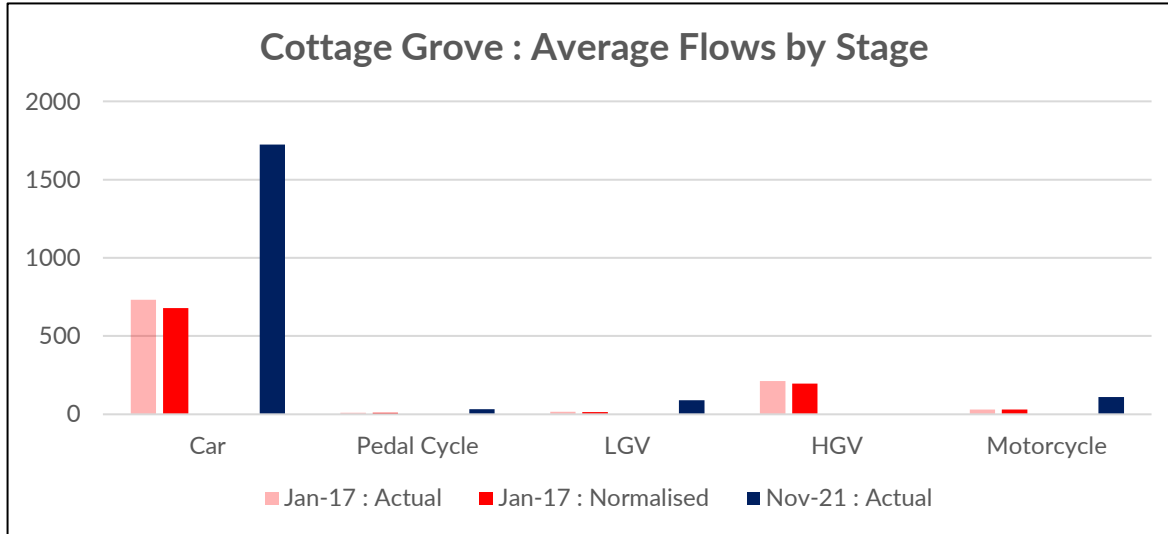


Concanon Road - Summary Table

	Nov-19 : Actual	Nov-19 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Nov-19 -> Oct-20 : Actual Difference	Nov-19 -> Oct-20 : Actual % Difference	Nov-19 -> Oct-20 : Normalised Difference	Nov-19 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	3,234	2,893	307	328	-2,927	-91%	-2,566	-89%	157	157	-3,077	-95%	-2,737	-95%
Cycle	166	166	183	183	17	10%	17	10%	214	214	48	29%	48	29%
HGV	65	58	12	13	-53	-82%	-45	-78%	6	6	-59	-90%	-52	-89%
LGV	189	169	22	24	-167	-88%	-145	-86%	9	9	-180	-95%	-160	-95%
Motorcycles	162	162	40	40	-122	-75%	-122	-75%	26	26	-136	-84%	-136	-84%
Total Motorised Vehicles	3,488	3,120	341	364	-3,147	-90%	-2,756	-88%	172	172	-3,316	-95%	-2,949	-94%

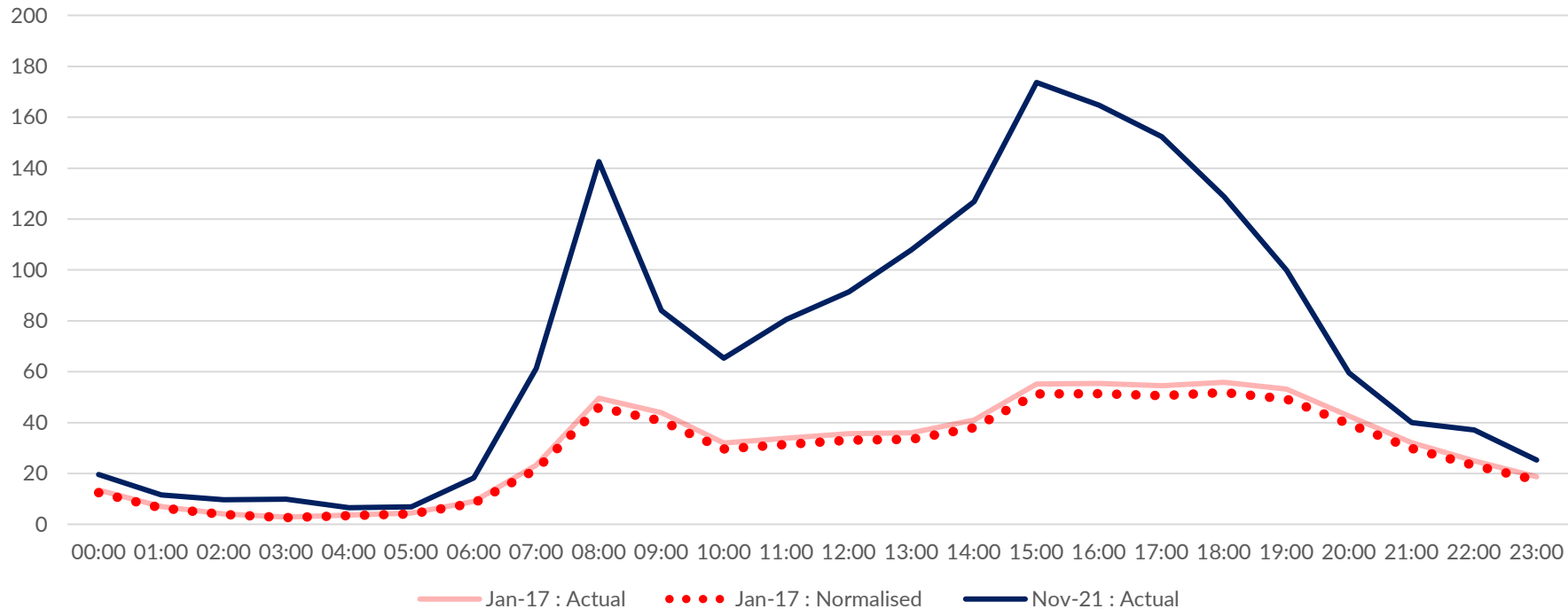
Cottage Grove (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Cottage Grove, showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from late November/early December 2021.

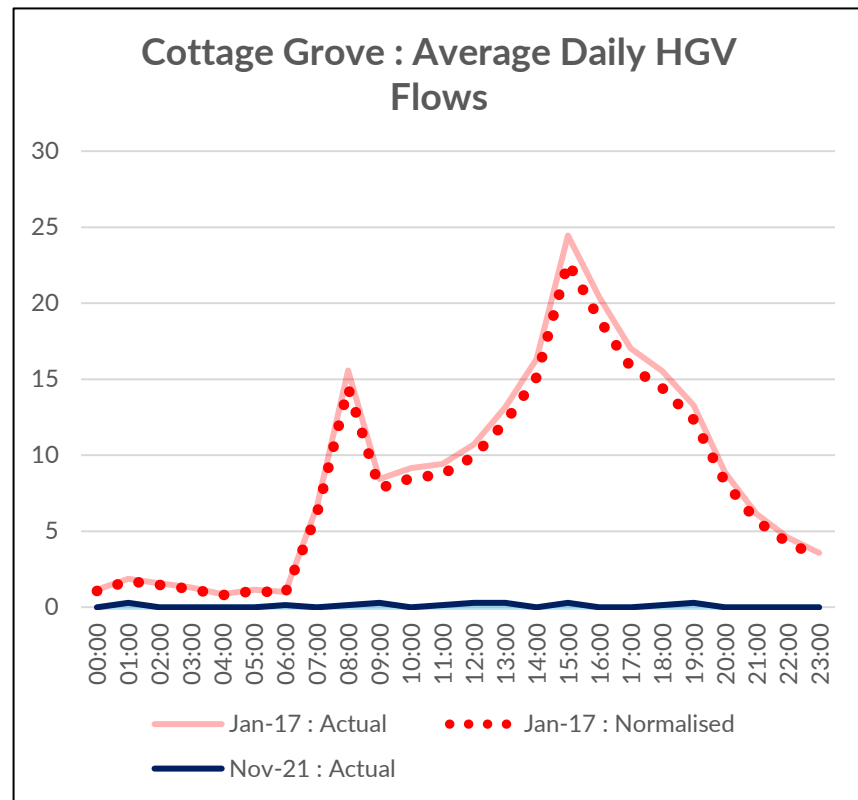
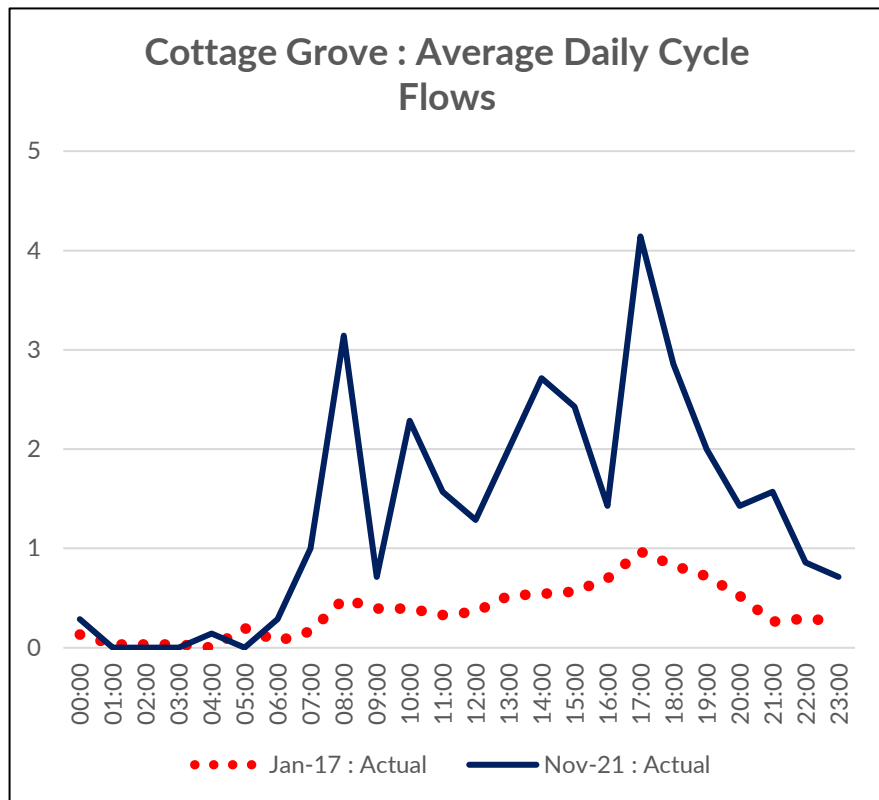


Cottage Grove

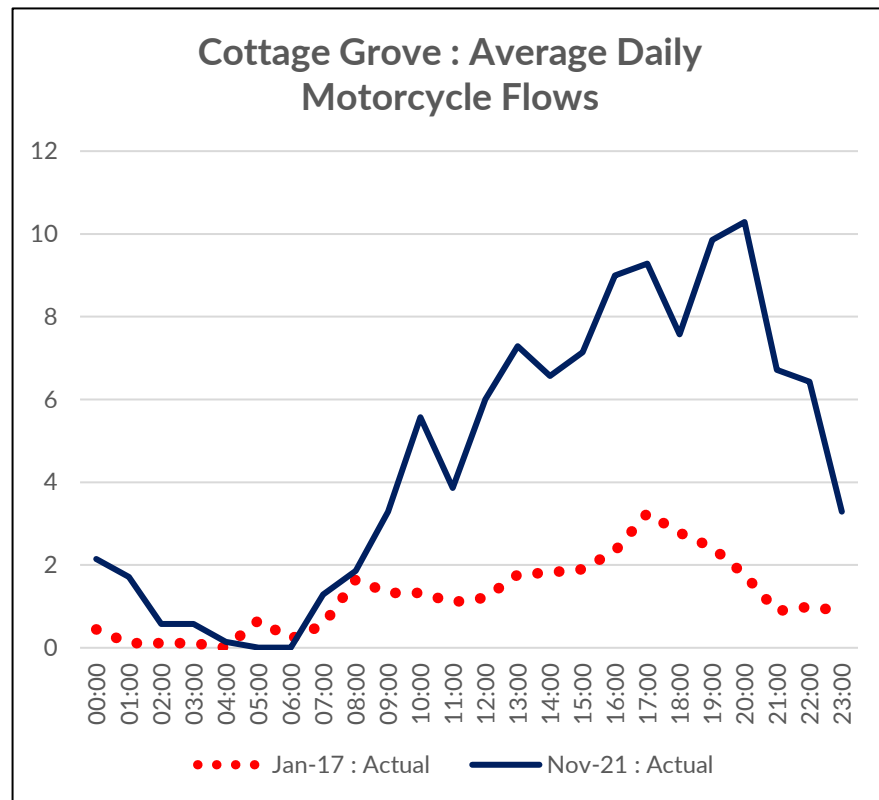
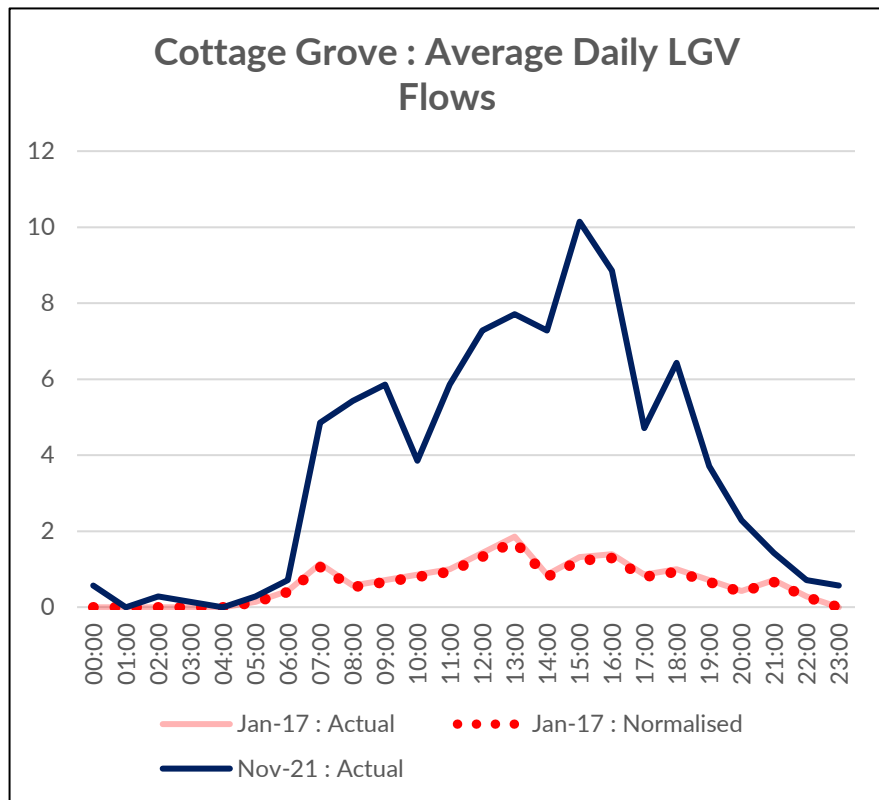
Cottage Grove : Average Daily Car Flows



Cottage Grove



Cottage Grove

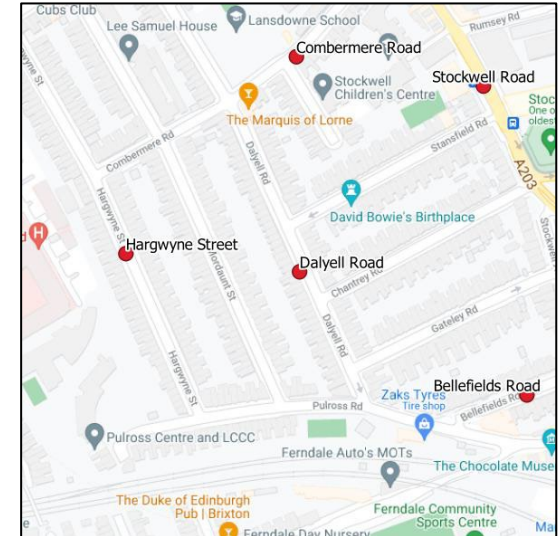
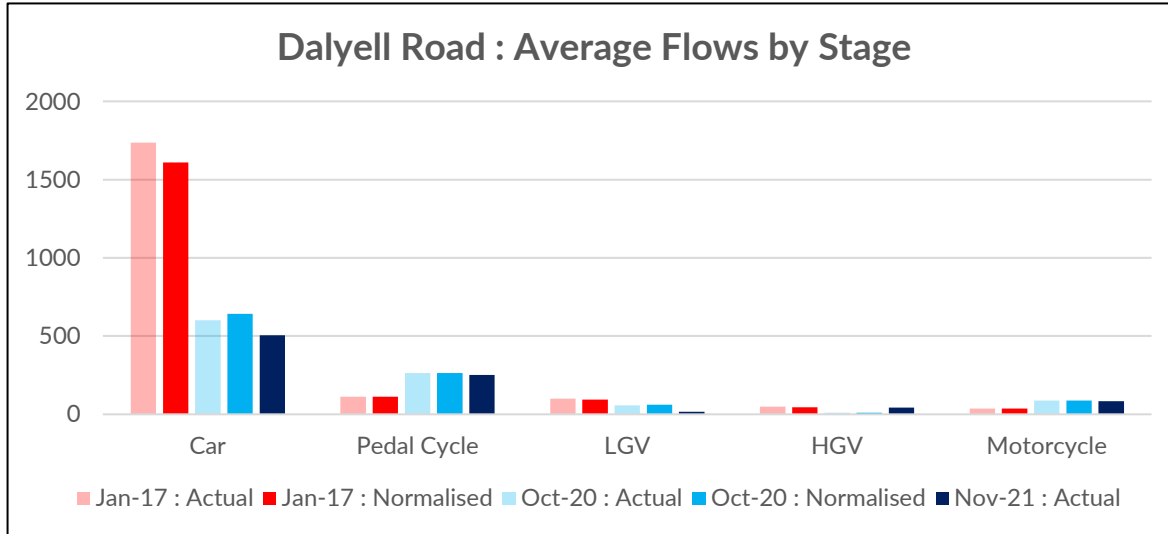


Cottage Grove - Summary Table

	Jan-17 : Actual	Jan-17 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	732	679	1,724	1,724	991	135%	1,044	154%
Cycle	9	9	33	33	24	273%	24	273%
HGV	212	197	2	2	-210	-99%	-194	-99%
LGV	16	15	89	89	73	466%	74	511%
Motorcycles	30	30	110	110	81	273%	81	273%
Total Motorised Vehicles	960	891	1,815	1,815	855	89%	924	104%

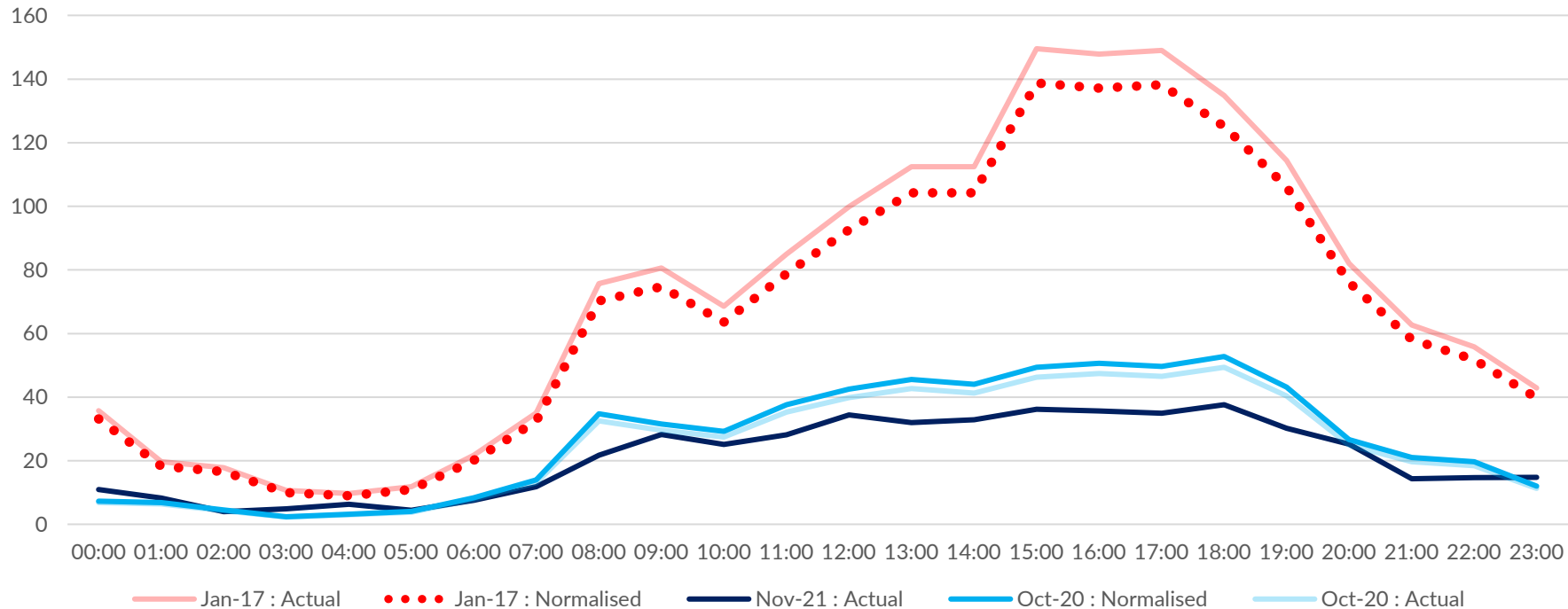
Dalyell Road (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Dalyell Road, showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from October 2020 and from late November/early December 2021.

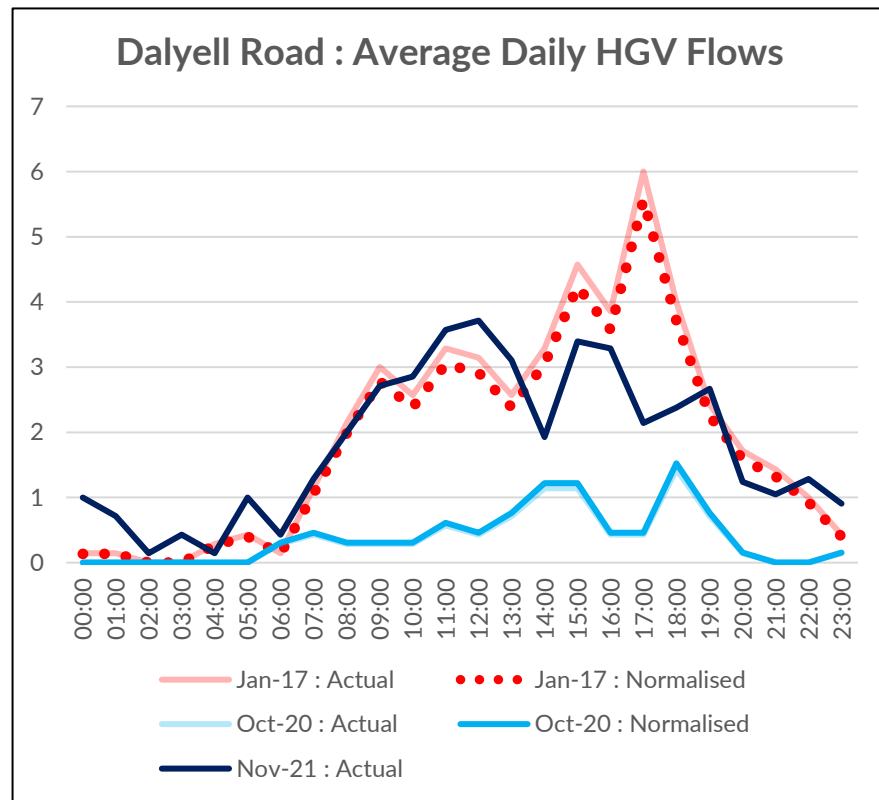
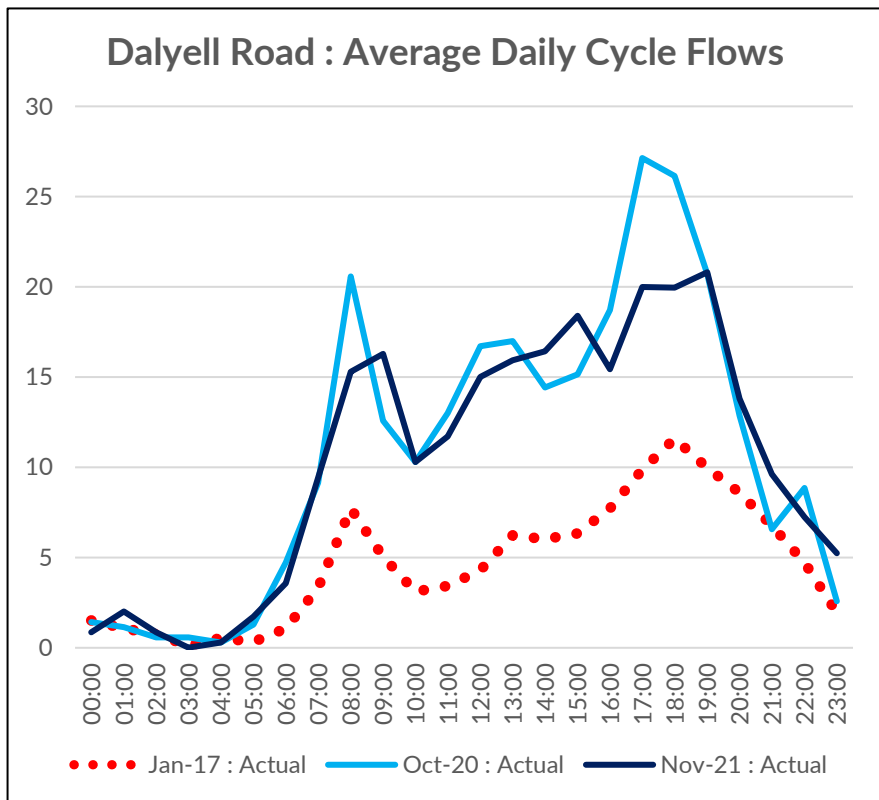


Dalyell Road

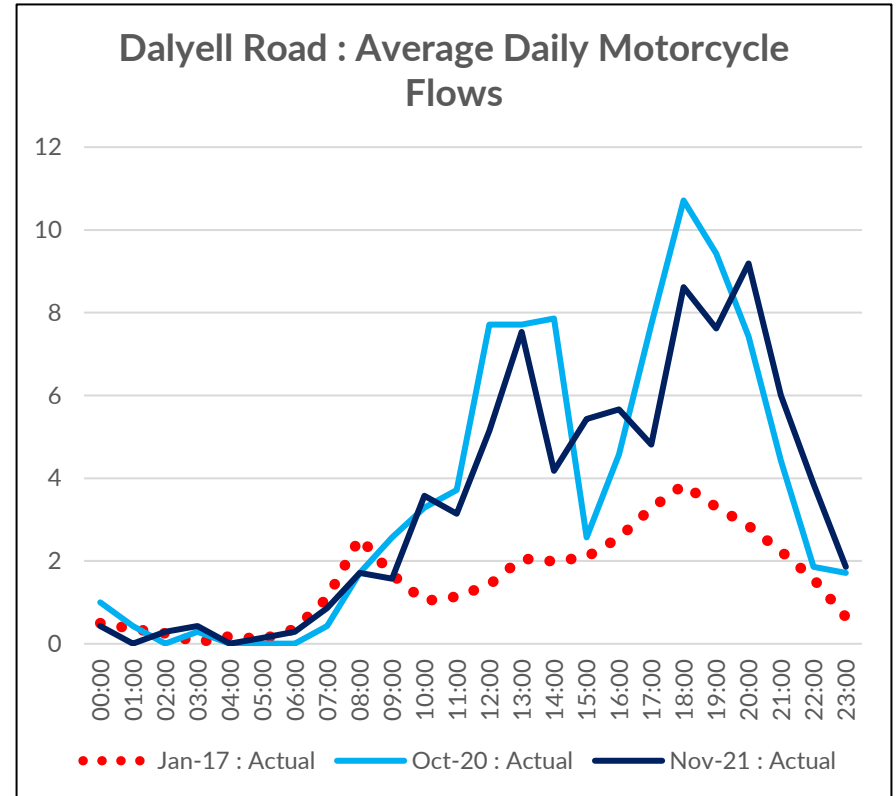
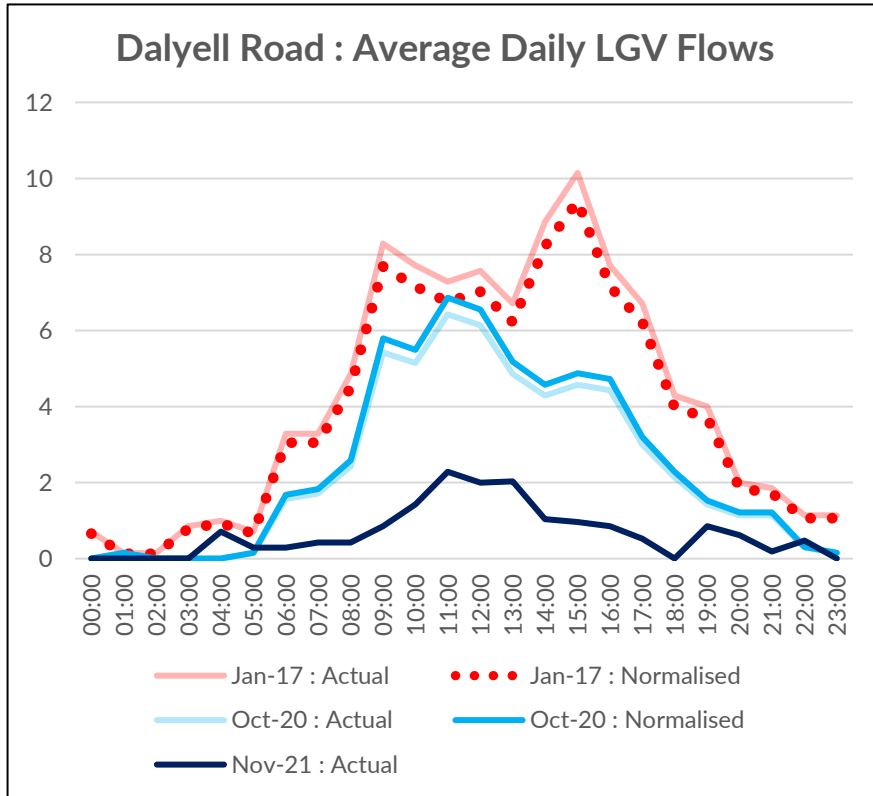
Dalyell Road : Average Daily Car Flows



Dalyell Road



Dalyell Road

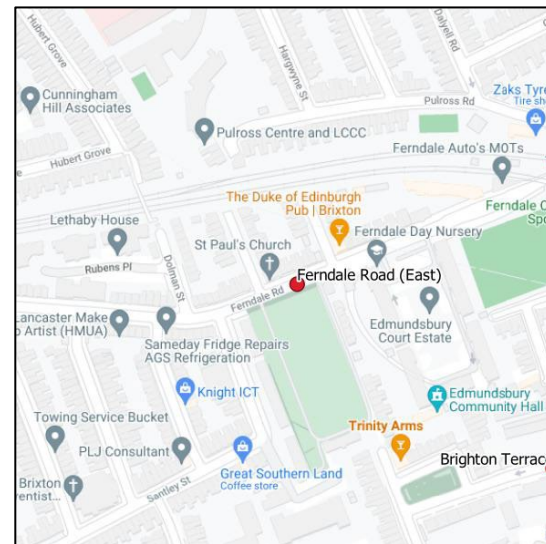
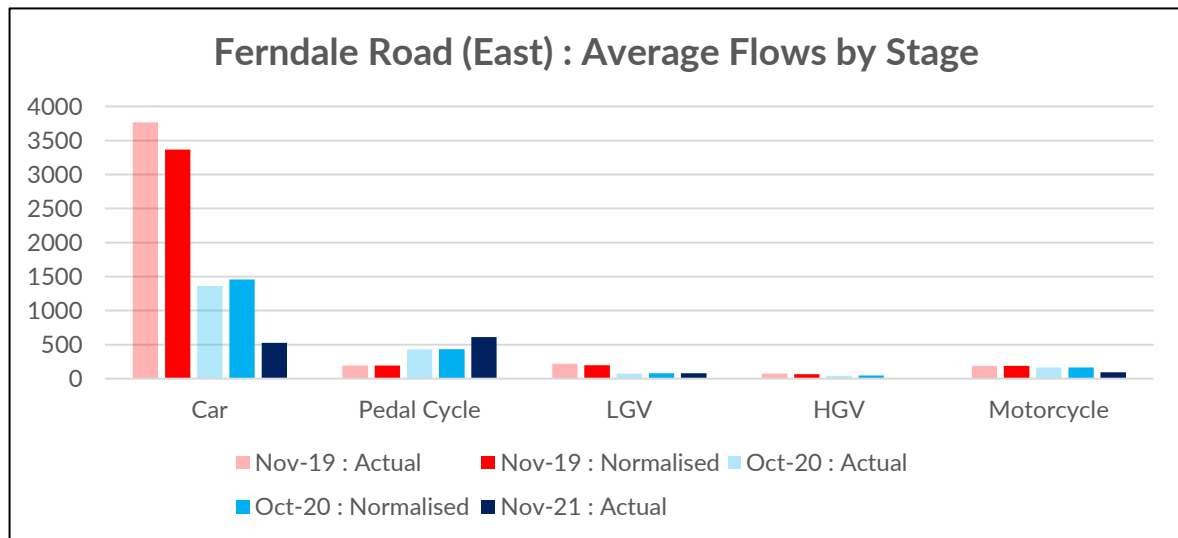


Dalyell Road - Summary Table

	Jan-17 : Actual	Jan-17 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Jan-17 -> Oct-20 : Actual Difference	Jan-17 -> Oct-20 : Actual % Difference	Jan-17 -> Oct-20 : Normalised Difference	Jan-17 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	1,736	1,610	601	641	-1,135	-65%	-969	-60%	505	505	-1,231	-71%	-1,106	-69%
Cycle	112	112	262	262	150	134%	150	134%	250	250	138	123%	138	123%
HGV	48	44	9	9	-39	-81%	-35	-79%	43	43	-4	-9%	-1	-2%
LGV	100	93	57	60	-44	-44%	-33	-35%	16	16	-84	-84%	-77	-83%
Motorcycles	37	37	87	87	50	135%	50	135%	82	82	45	122%	45	122%
Total Motorised Vehicles	1,884	1,748	666	711	-1,218	-65%	-1,036	-59%	564	564	-1,320	-70%	-1,183	-68%

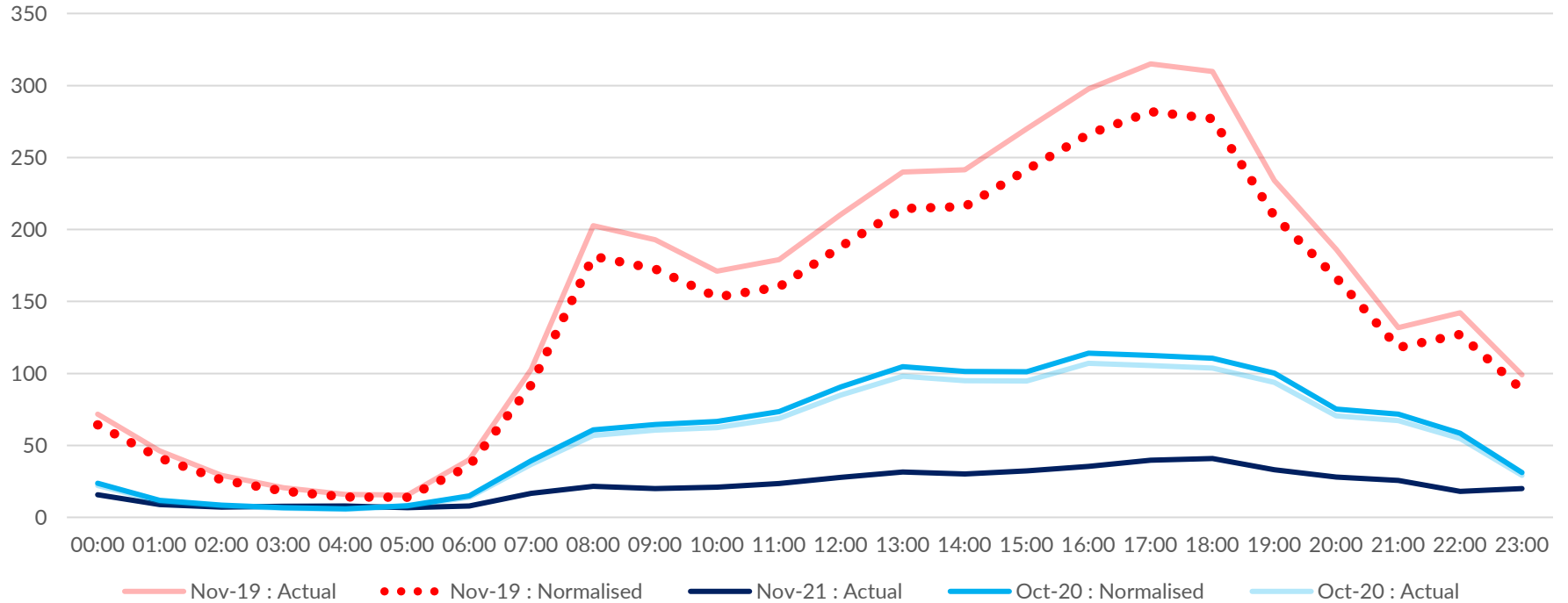
Ferndale Road (East) (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Ferndale Road (East), showing the difference between pre-implementation flows collected in November 2019 and post-implementation flows from October 2020 and from late November/early December 2021.

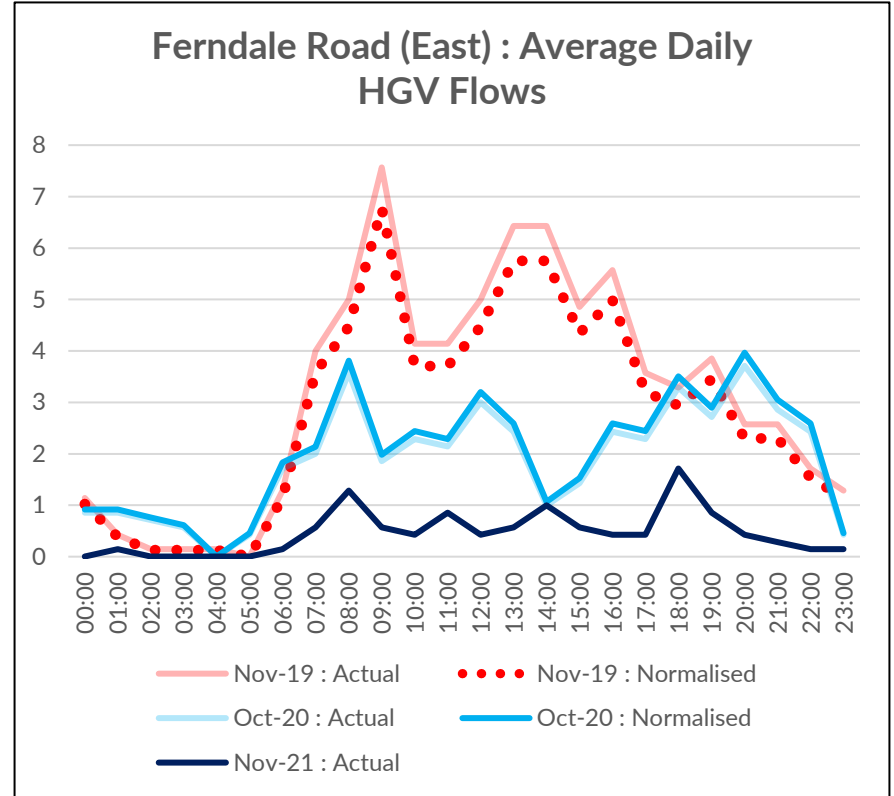
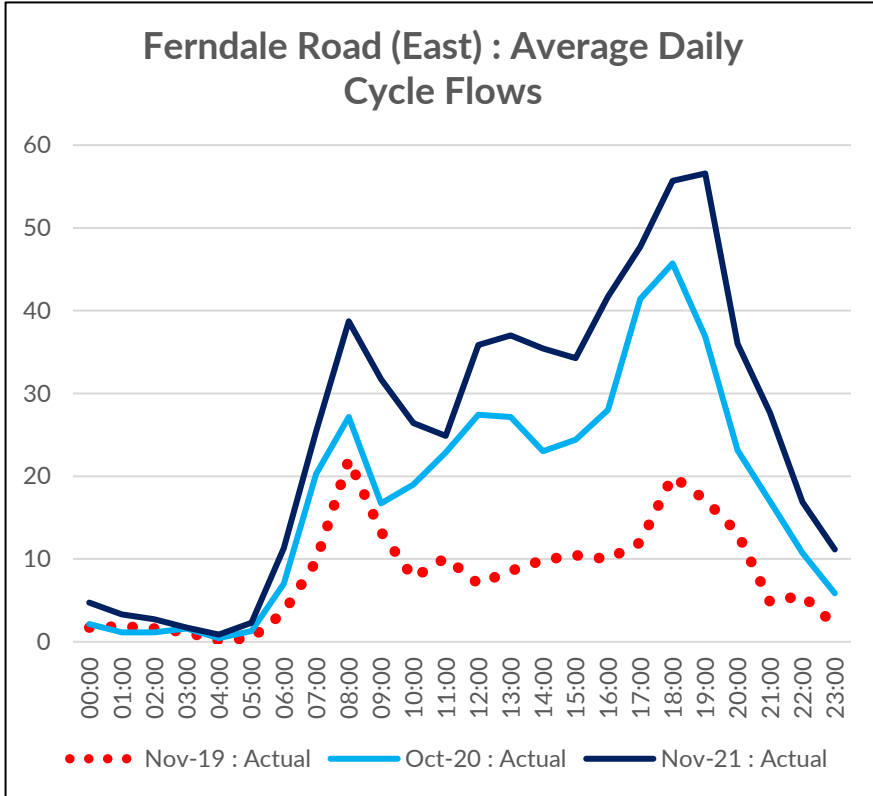


Ferndale Road (East)

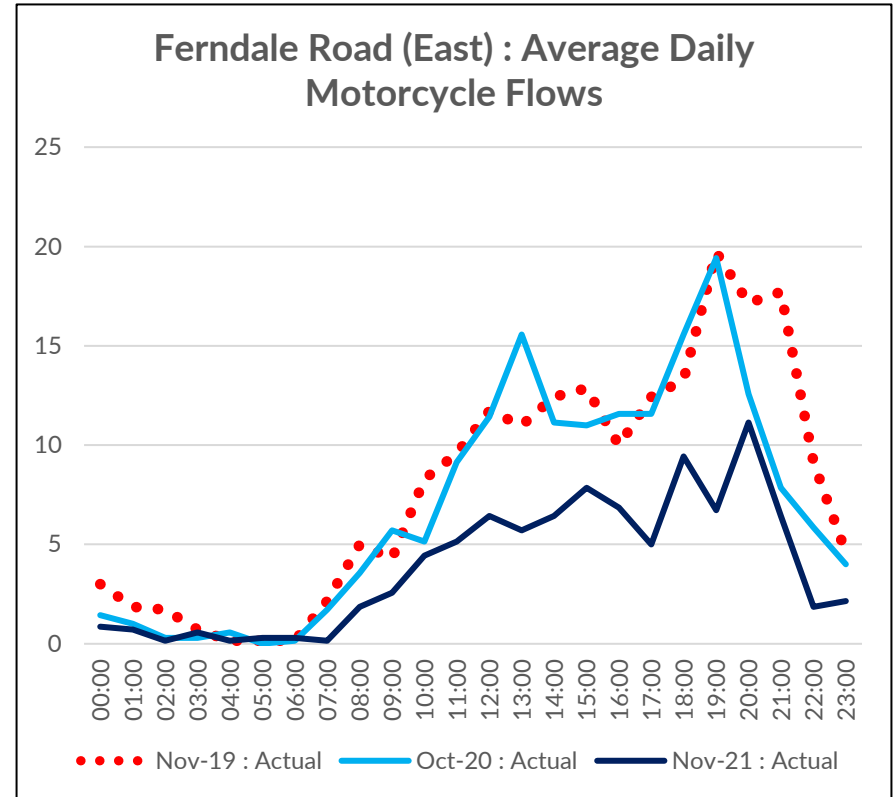
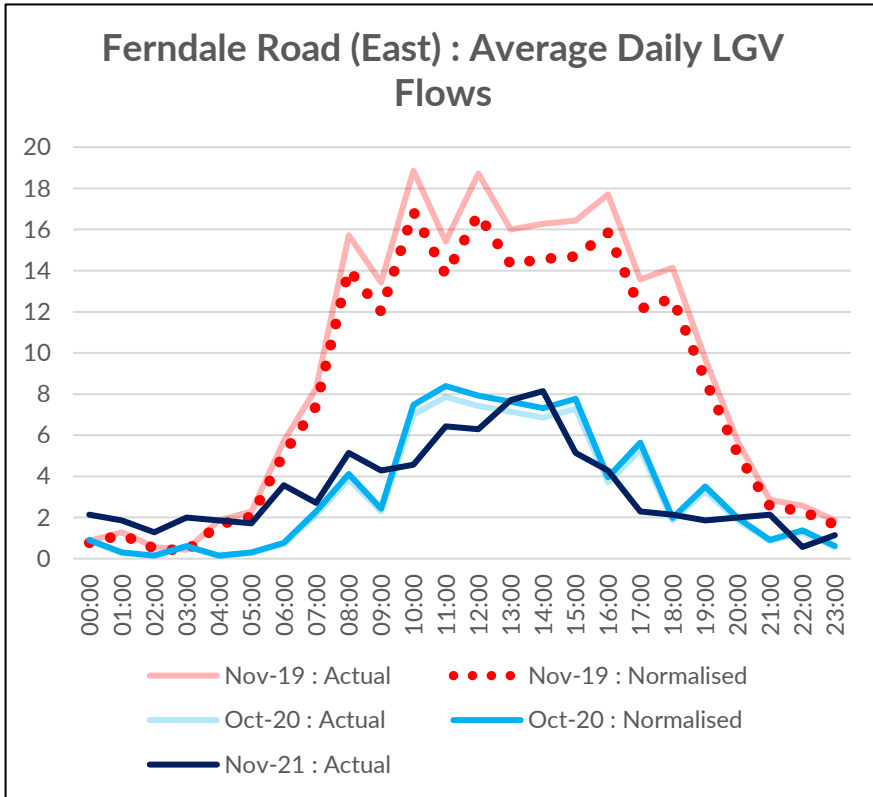
Ferndale Road (East) : Average Daily Car Flows



Ferndale Road (East)



Ferndale Road (East)

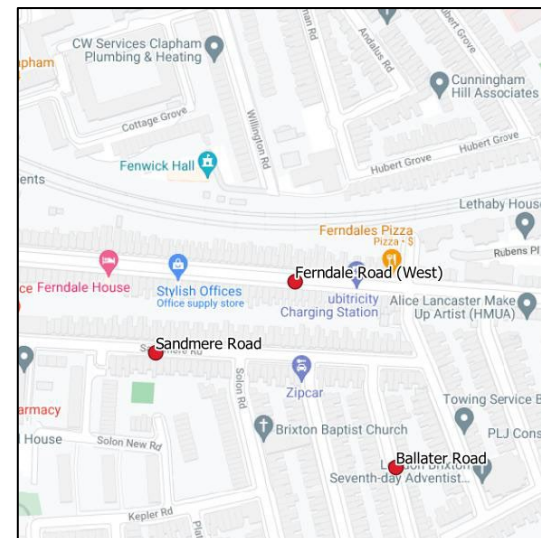
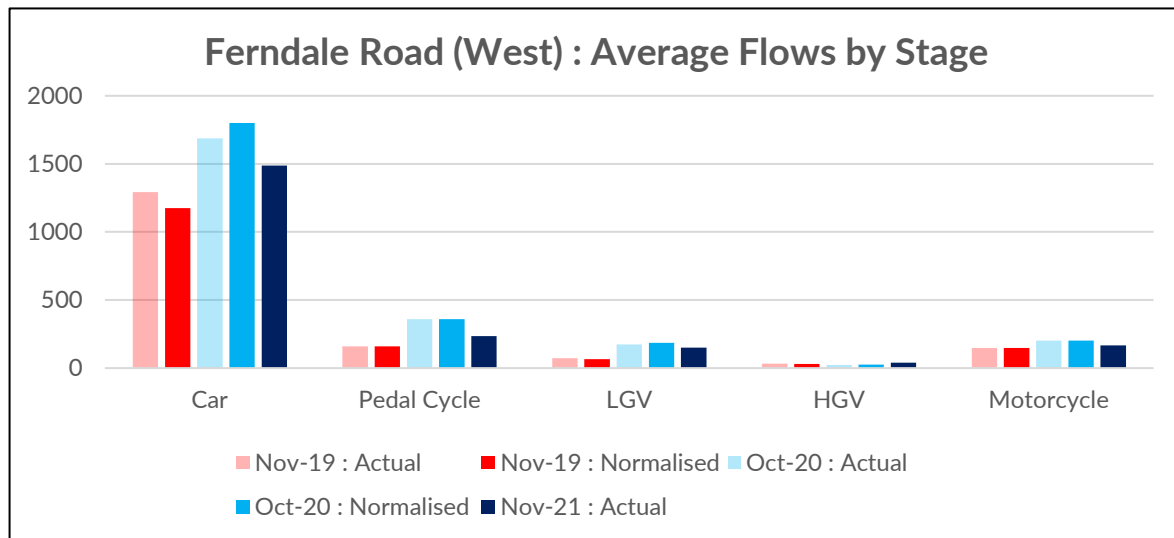


Ferndale Road (East) – Summary Table

	Nov-19 : Actual	Nov-19 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Nov-19 -> Oct-20 : Actual Difference	Nov-19 -> Oct-20 : Actual % Difference	Nov-19 -> Oct-20 : Normalised Difference	Nov-19 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	3,766	3,369	1,366	1,458	-2,400	-64%	-1,912	-57%	529	529	-3,237	-86%	-2,840	-84%
Cycle	194	194	431	431	238	123%	238	123%	610	610	416	215%	416	215%
HGV	75	67	45	48	-30	-40%	-19	-29%	11	11	-64	-85%	-56	-84%
LGV	220	197	74	79	-147	-67%	-119	-60%	81	81	-139	-63%	-116	-59%
Motorcycles	189	189	167	167	-22	-12%	-22	-12%	93	93	-96	-51%	-96	-51%
Total Motorised Vehicles	4,062	3,634	1,484	1,584	-2,577	-63%	-2,050	-56%	621	621	-3,440	-85%	-3,012	-83%

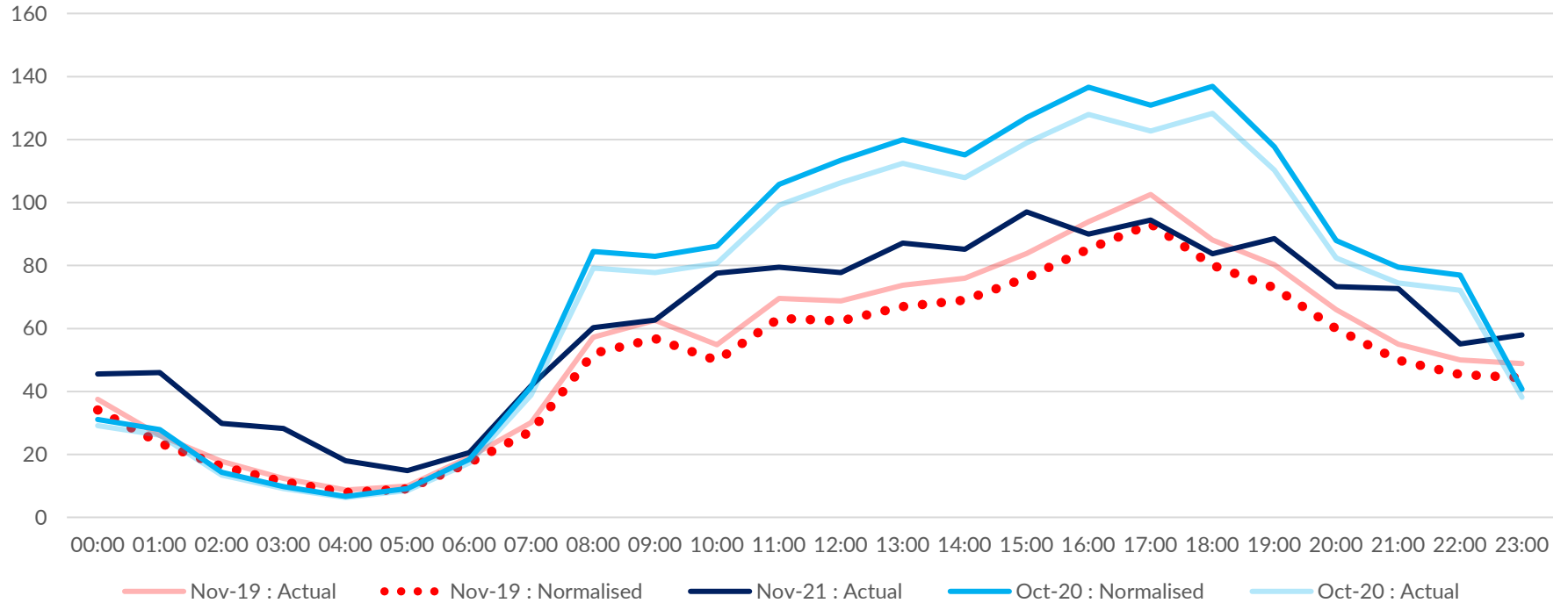
Ferndale Road (West) (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Ferndale Road (West), showing the difference between pre-implementation flows collected in November 2019 and post-implementation flows from October 2020 and from late November/early December 2021.

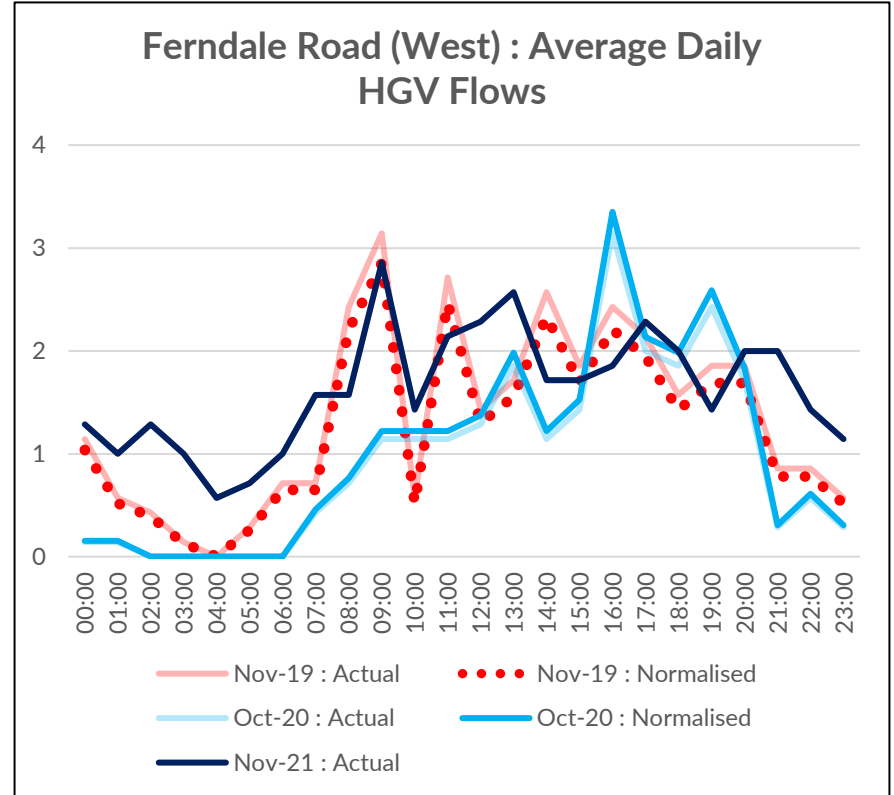
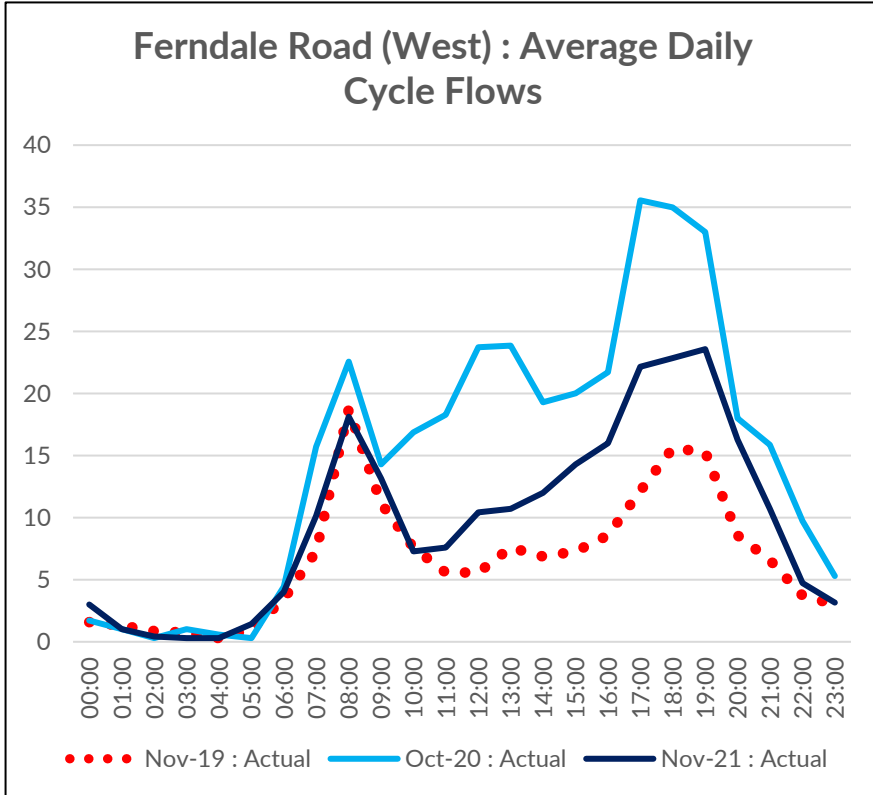


Ferndale Road (West)

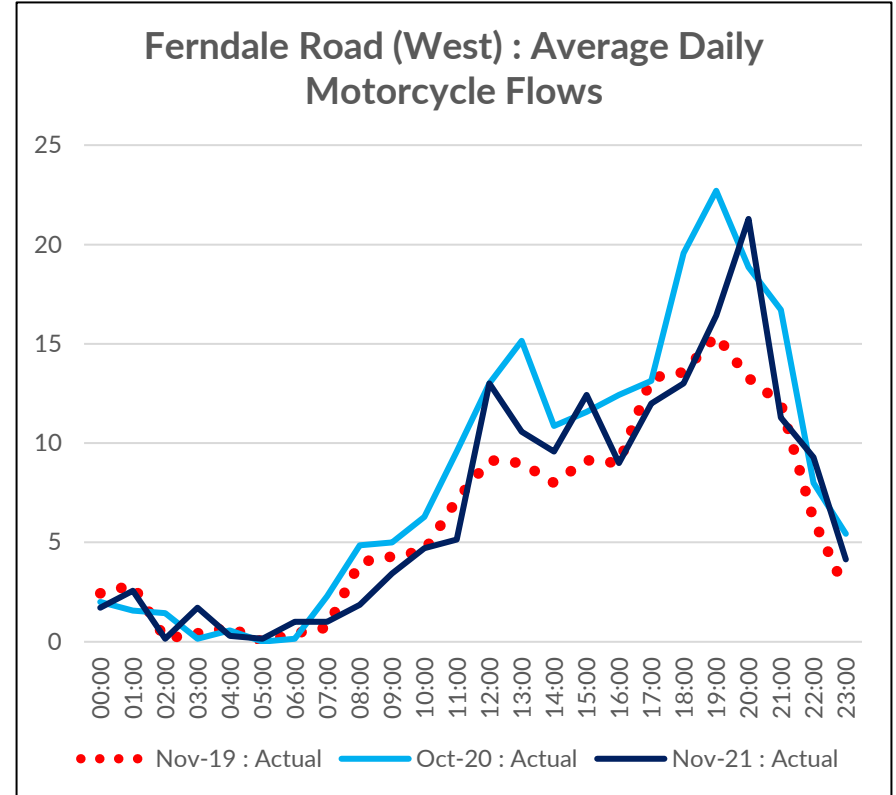
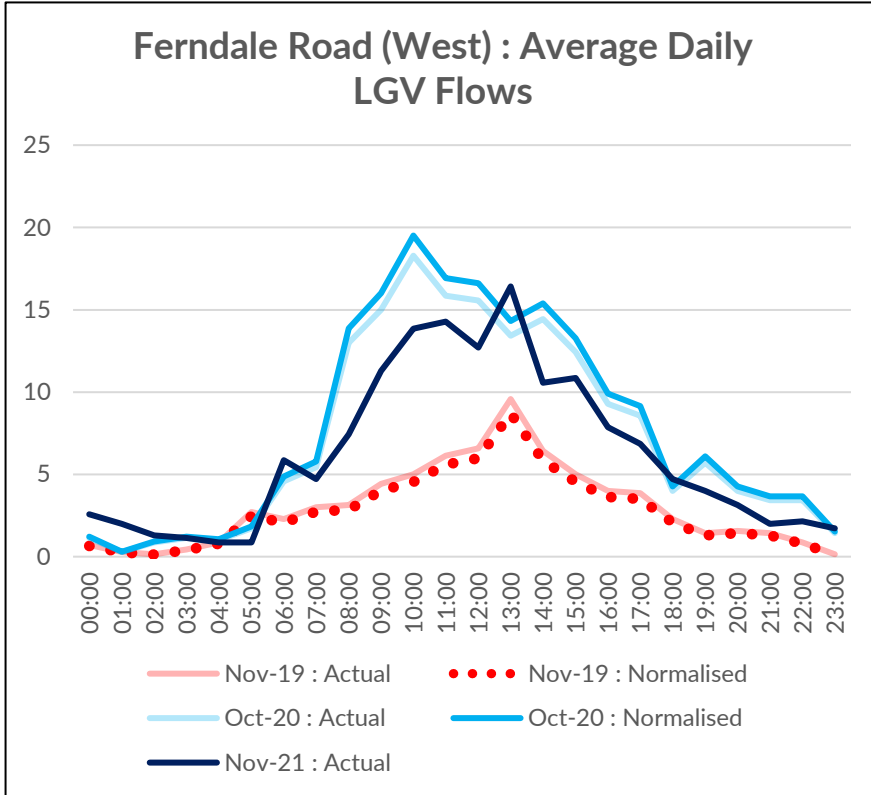
Ferndale Road (West) : Average Daily Car Flows



Ferndale Road (West)



Ferndale Road (West)

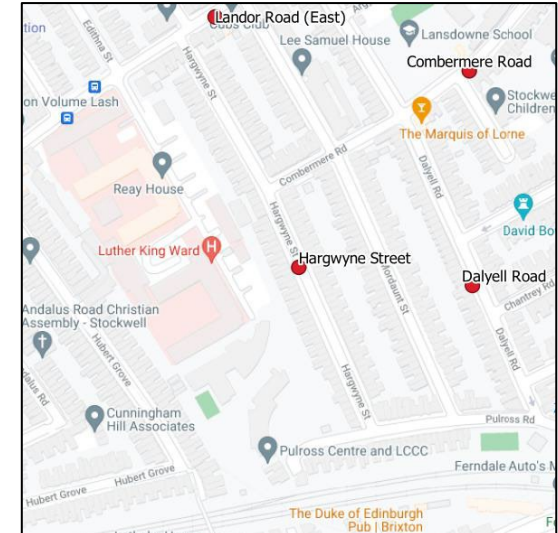
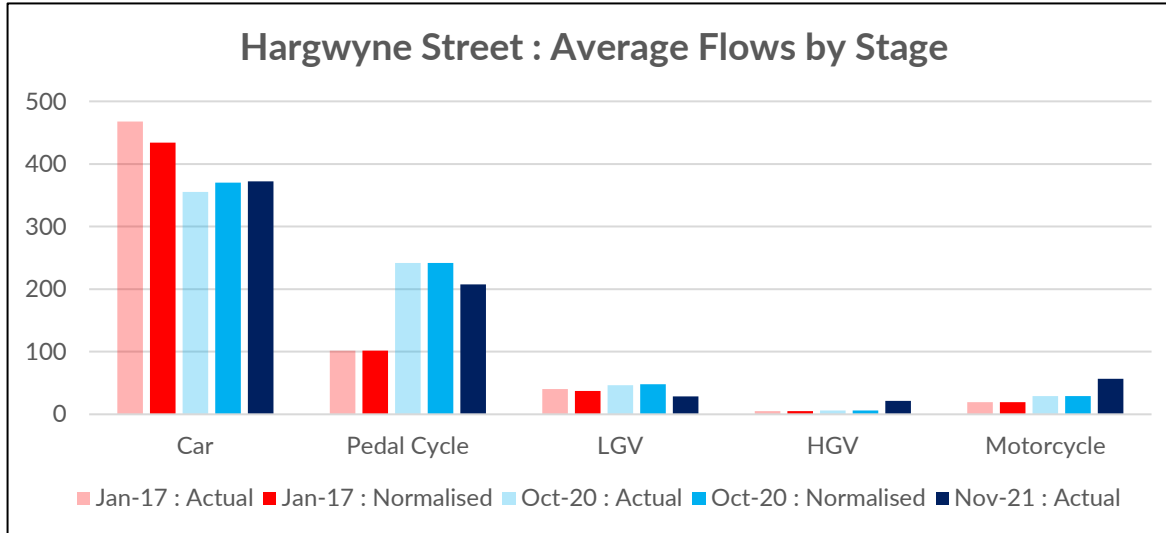


Ferndale Road (West) – Summary Table

	Nov-19 : Actual	Nov-19 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Nov-19 -> Oct-20 : Actual Difference	Nov-19 -> Oct-20 : Actual % Difference	Nov-19 -> Oct-20 : Normalised Difference	Nov-19 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	1,293	1,175	1,688	1,801	394	31%	626	53%	1,488	1,488	195	15%	313	27%
Cycle	160	160	358	358	198	124%	198	124%	234	234	73	46%	73	46%
HGV	33	30	23	24	-10	-30%	-5	-18%	39	39	6	19%	9	31%
LGV	72	66	174	186	102	141%	120	183%	149	149	77	106%	83	127%
Motorcycles	148	148	201	201	53	36%	53	36%	166	166	17	12%	17	12%
Total Motorised Vehicles	1,398	1,270	1,884	2,011	486	35%	741	58%	1,676	1,676	278	20%	406	32%

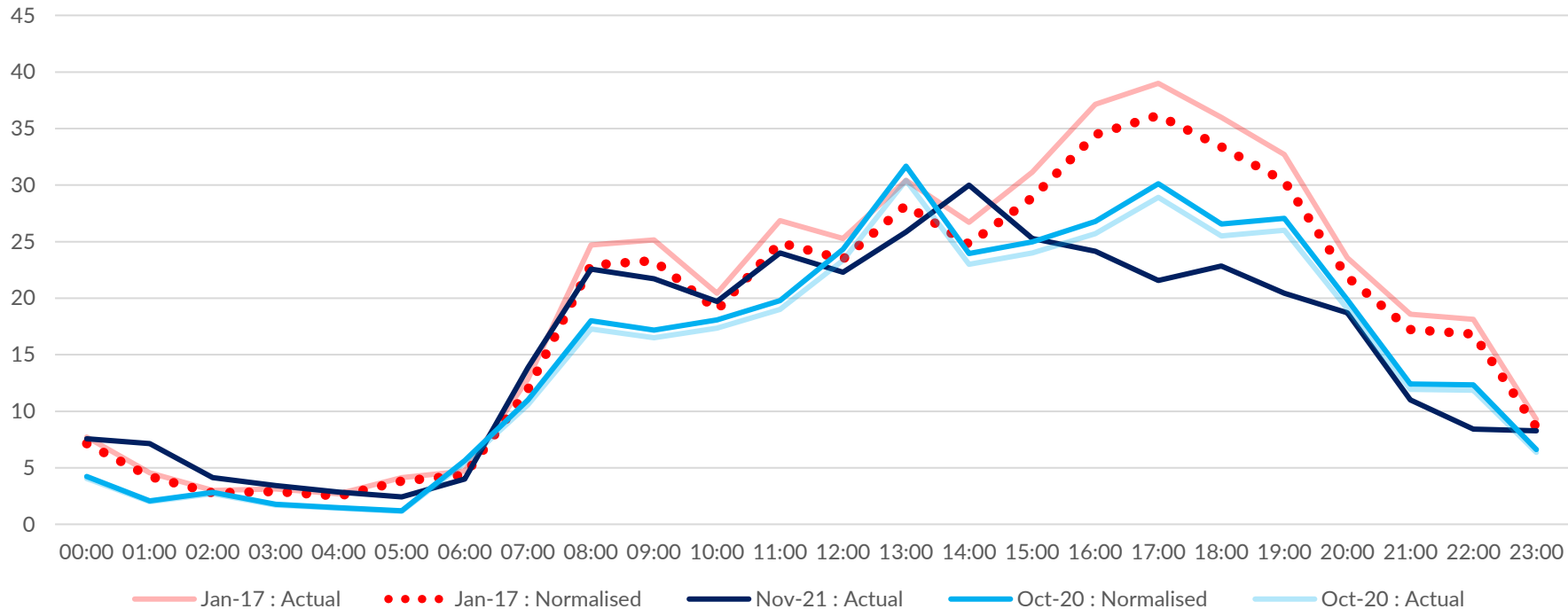
Hargwyne Street (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Hargwyne Street, showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from October 2020 and from late November/early December 2021.

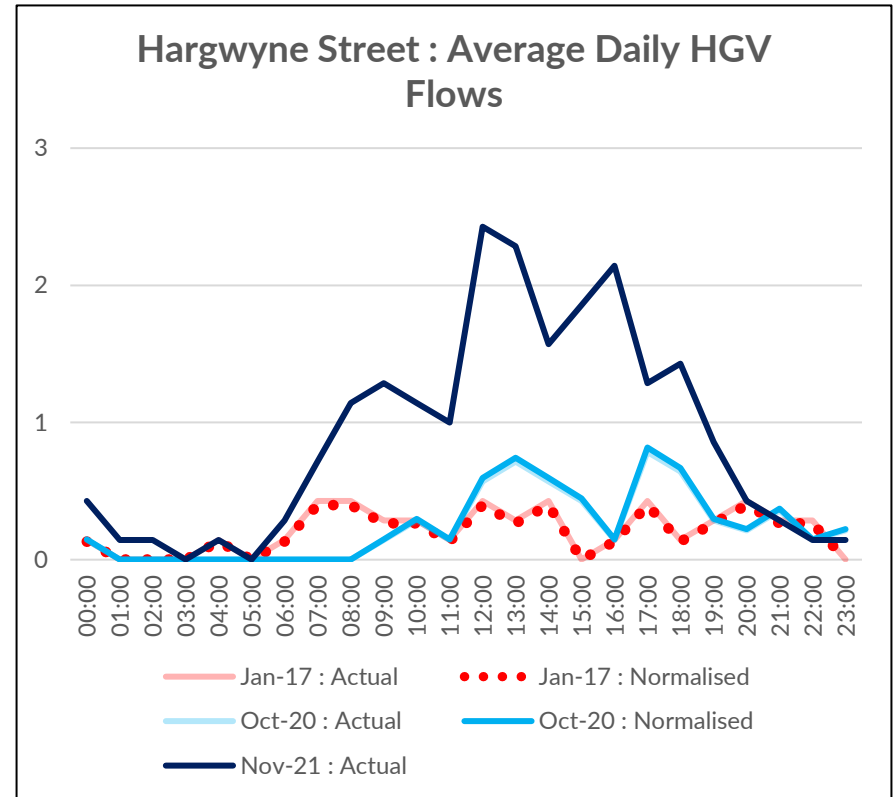
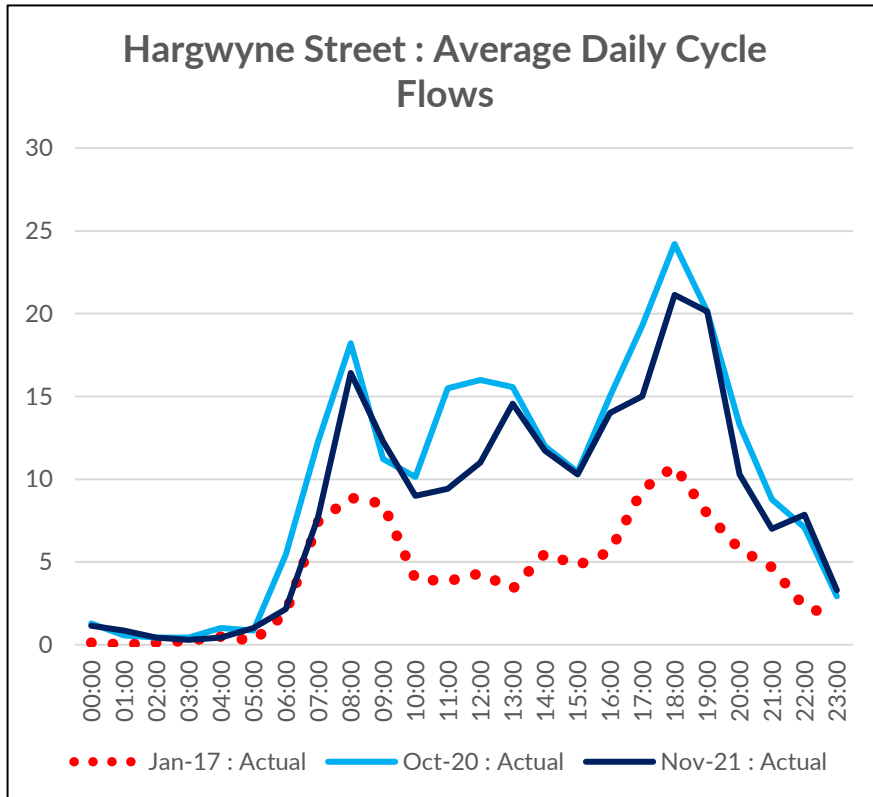


Hargwyne Street

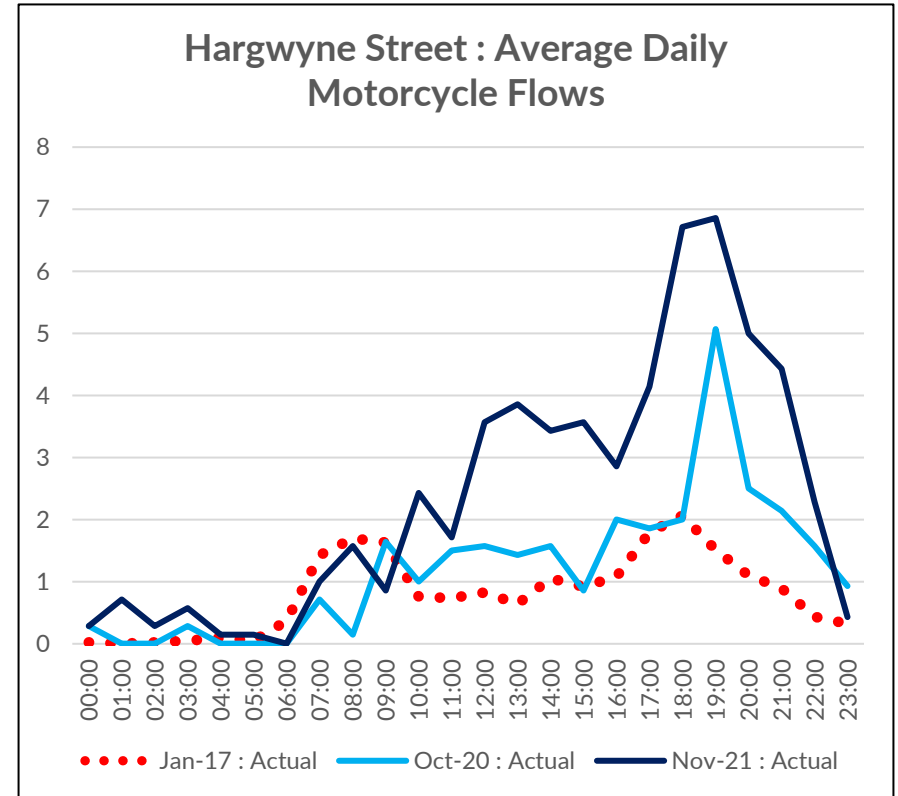
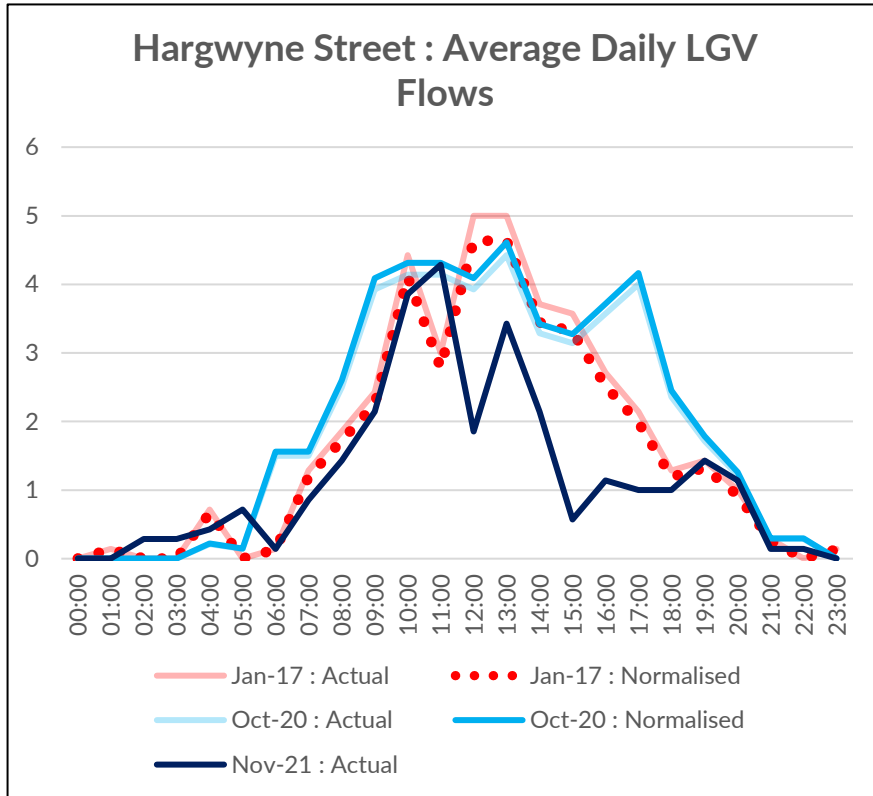
Hargwyne Street : Average Daily Car Flows



Hargwyne Street



Hargwyne Street

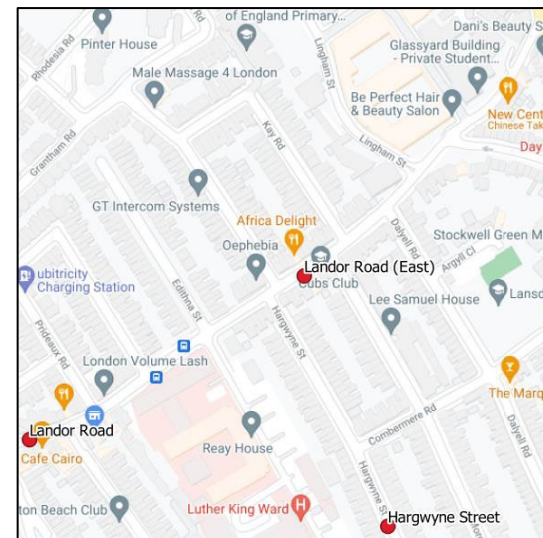
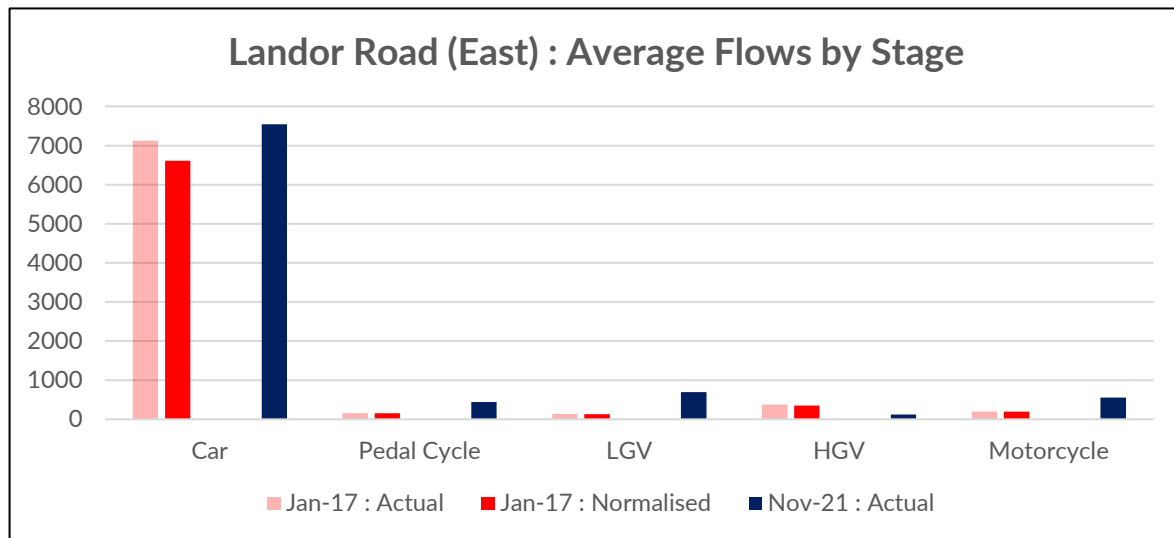


Hargwyne Street - Summary Table

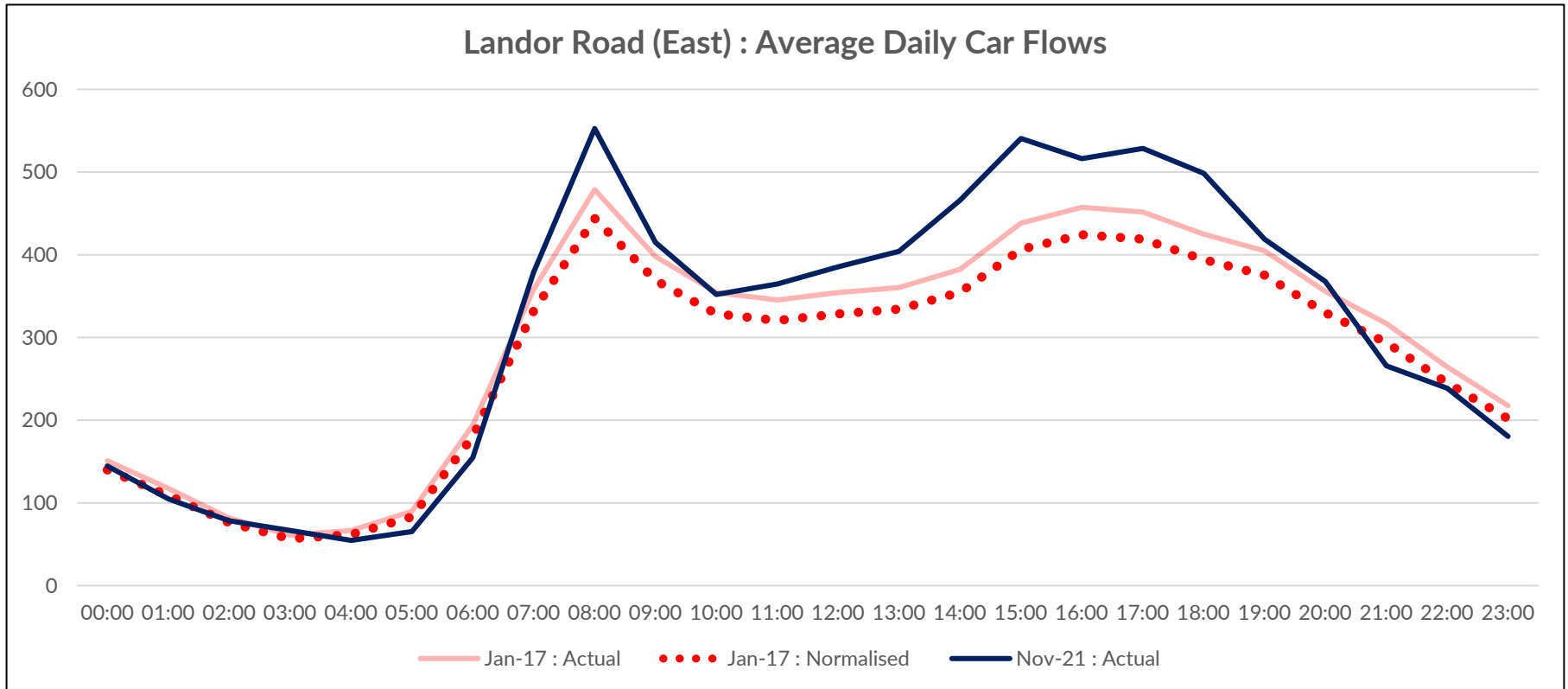
	Jan-17 : Actual	Jan-17 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Jan-17 -> Oct-20 : Actual Difference	Jan-17 -> Oct-20 : Actual % Difference	Jan-17 -> Oct-20 : Normalised Difference	Jan-17 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	468	434	355	370	-113	-24%	-64	-15%	372	372	-96	-20%	-62	-14%
Cycle	102	102	242	242	140	138%	140	138%	207	207	106	104%	106	104%
HGV	5	5	6	6	1	13%	1	26%	21	21	16	314%	17	346%
LGV	40	37	46	48	6	15%	11	29%	28	28	-12	-29%	-9	-24%
Motorcycles	19	19	29	29	10	49%	10	49%	57	57	37	192%	37	192%
Total Motorised Vehicles	513	476	407	424	-106	-21%	-52	-11%	422	422	-91	-18%	-54	-11%

Landor Road (East) (Daily Flows)

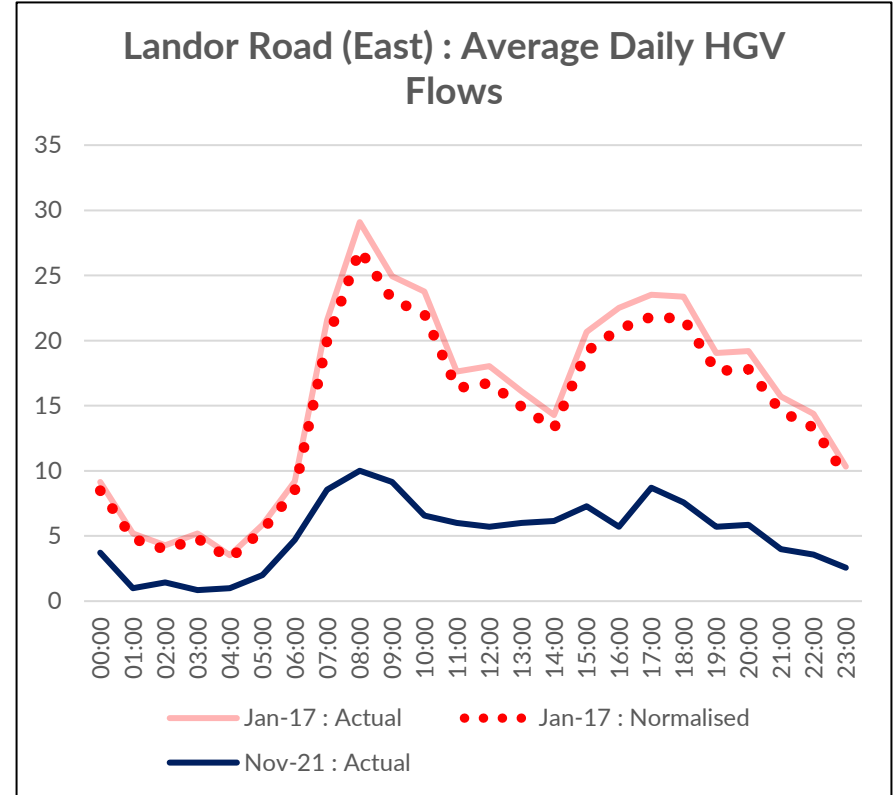
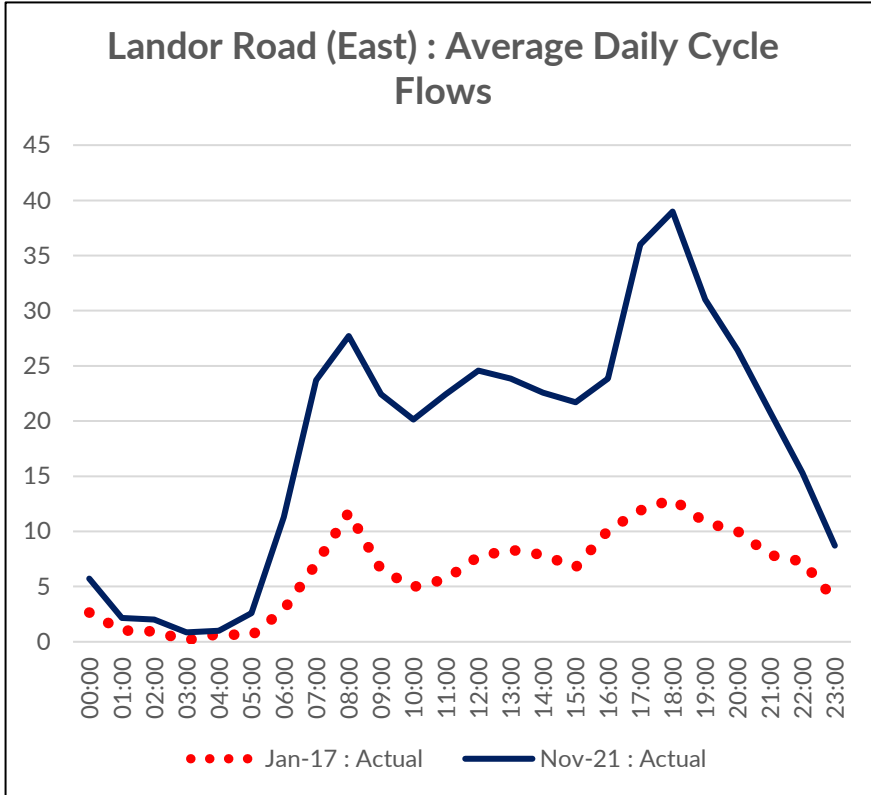
- The charts below and on the following pages show the normalised average daily flows on Landor Road (East), showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from late November/early December 2021.



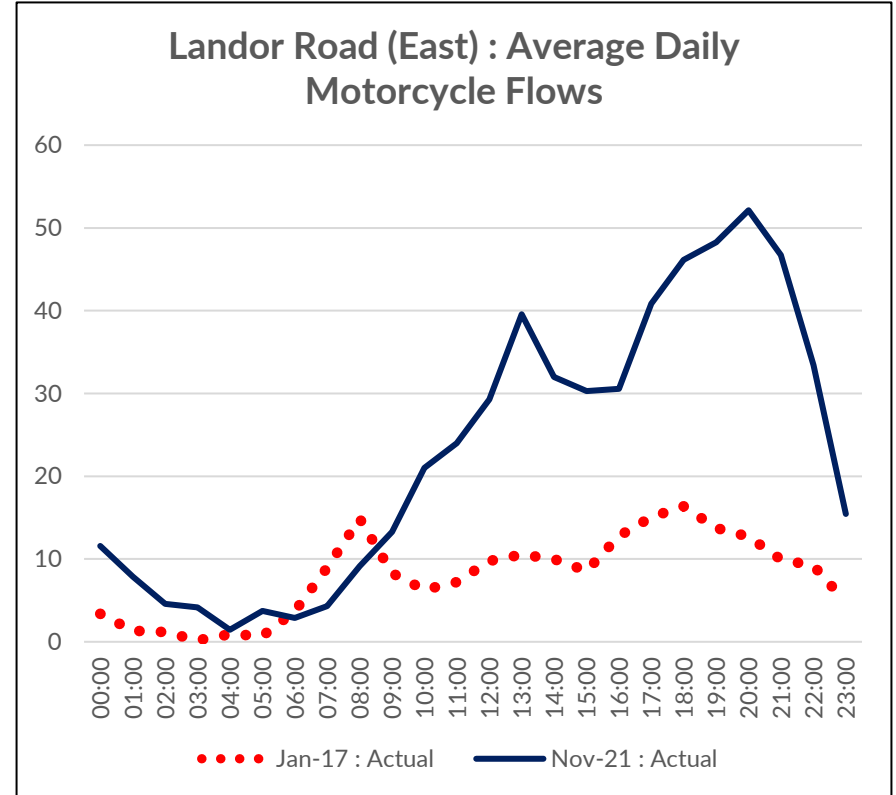
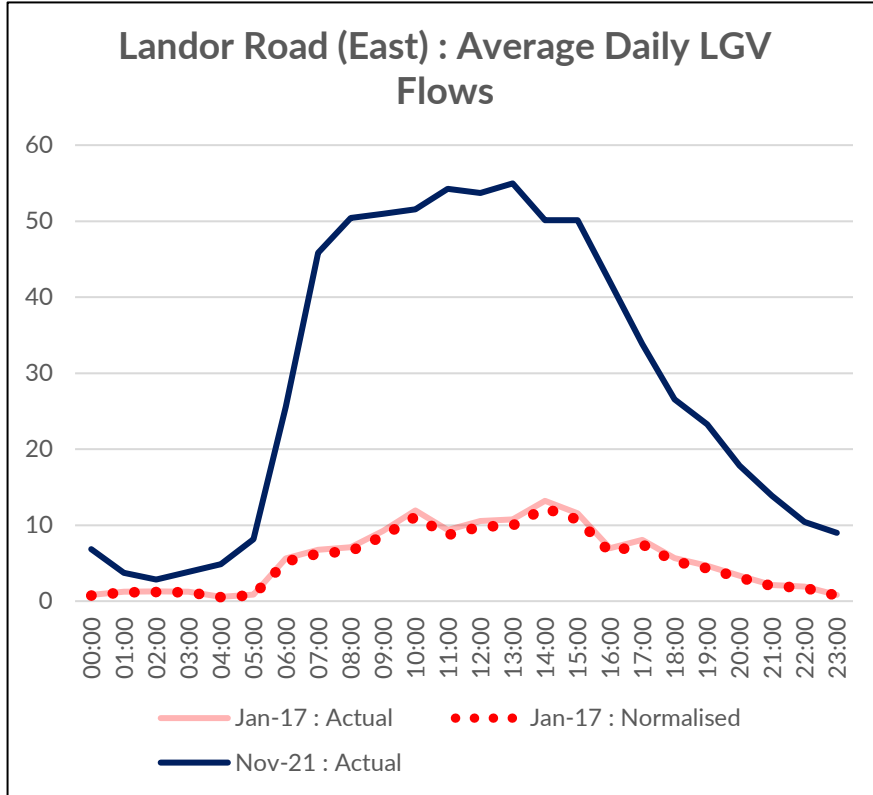
Landor Road (East)



Landor Road (East)



Landor Road (East)

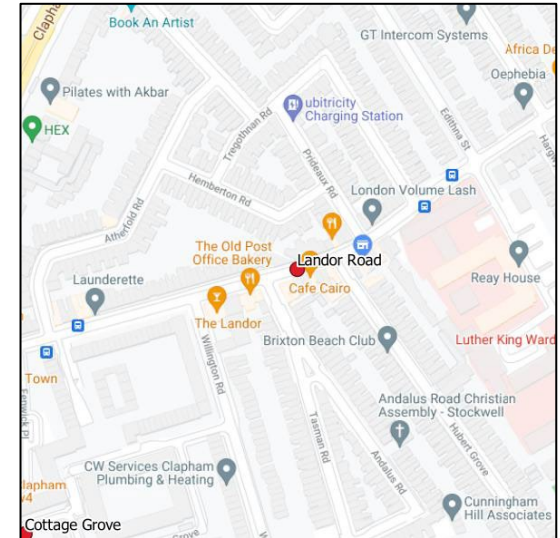
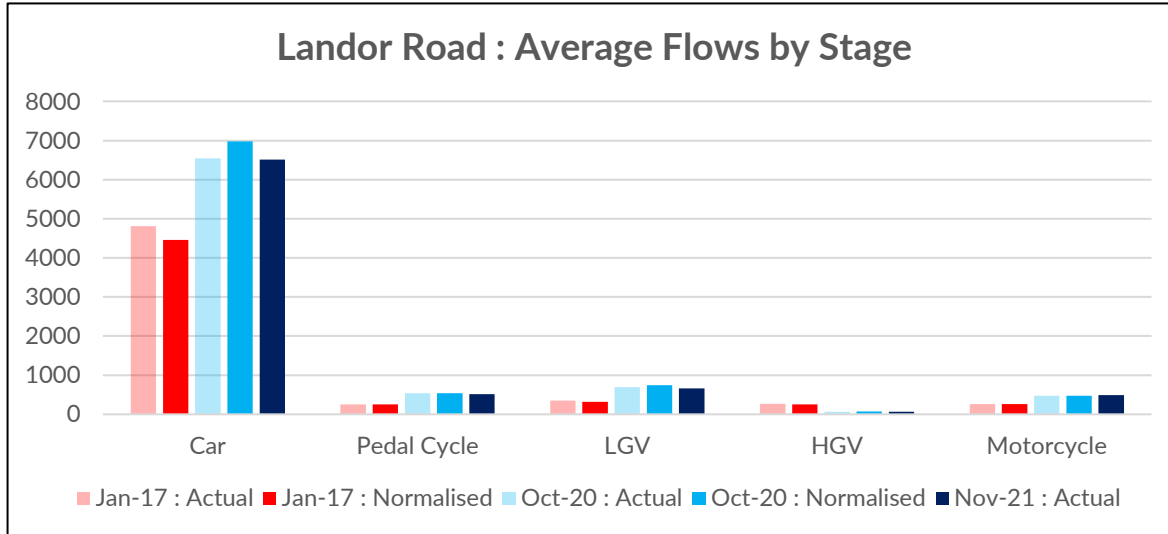


Landor Road (East) – Summary Table

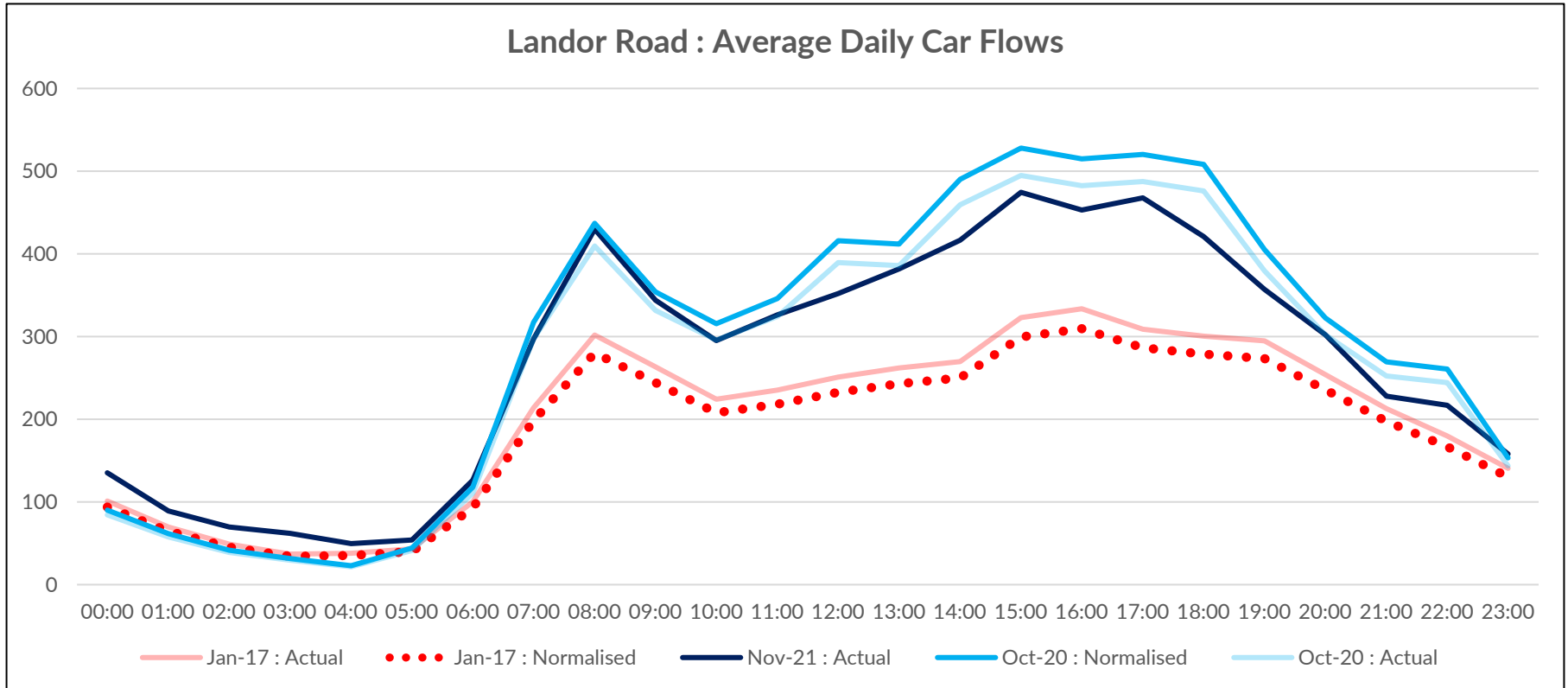
	Jan-17 : Actual	Jan-17 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	7,128	6,611	7,546	7,546	419	6%	935	14%
Cycle	150	150	436	436	286	191%	286	191%
HGV	377	349	124	124	-253	-67%	-225	-65%
LGV	136	126	695	695	559	412%	569	452%
Motorcycles	190	190	553	553	362	191%	362	191%
Total Motorised Vehicles	7,640	7,086	8,365	8,365	725	9%	1,279	18%

Landor Road West (Daily Flows)

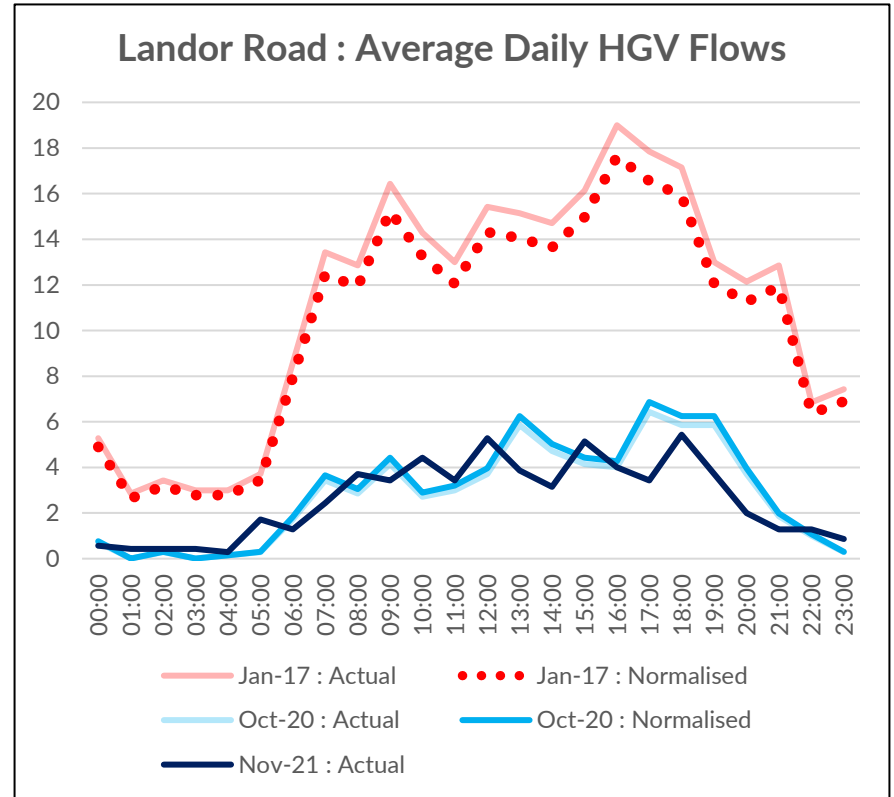
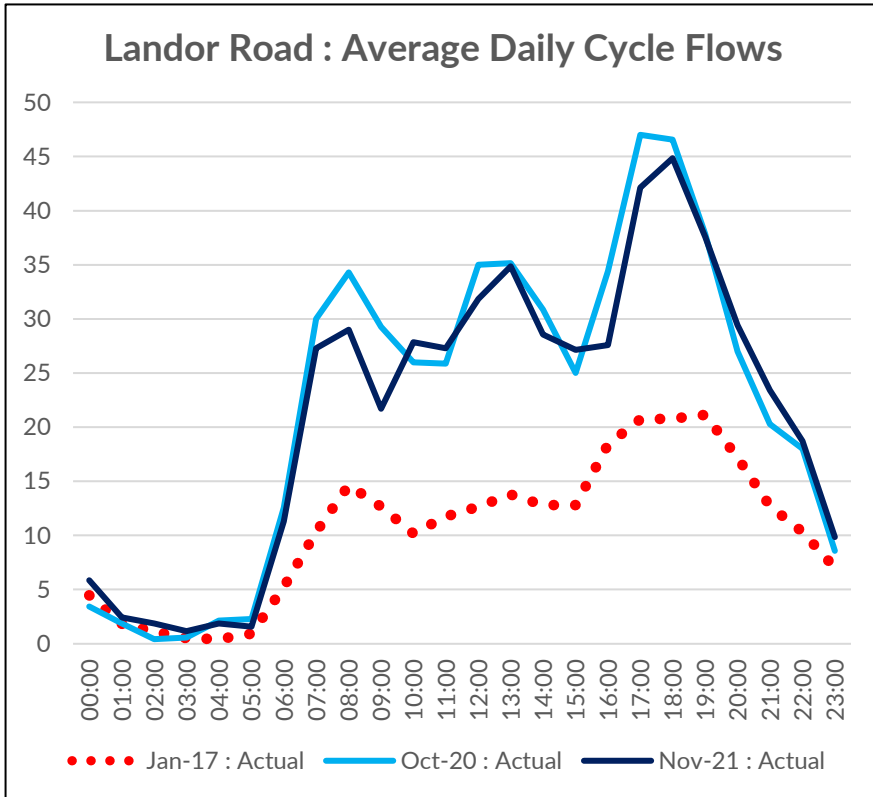
- The charts below and on the following pages show the normalised average daily flows on Landor Road (West), showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from October 2020 and from late November/early December 2021.



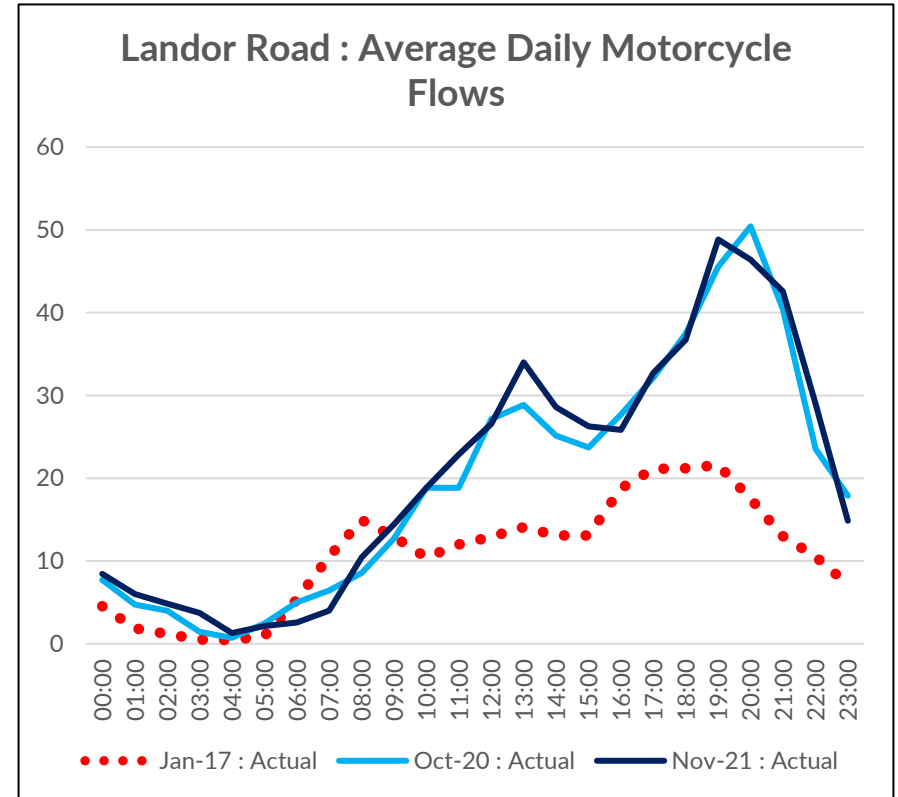
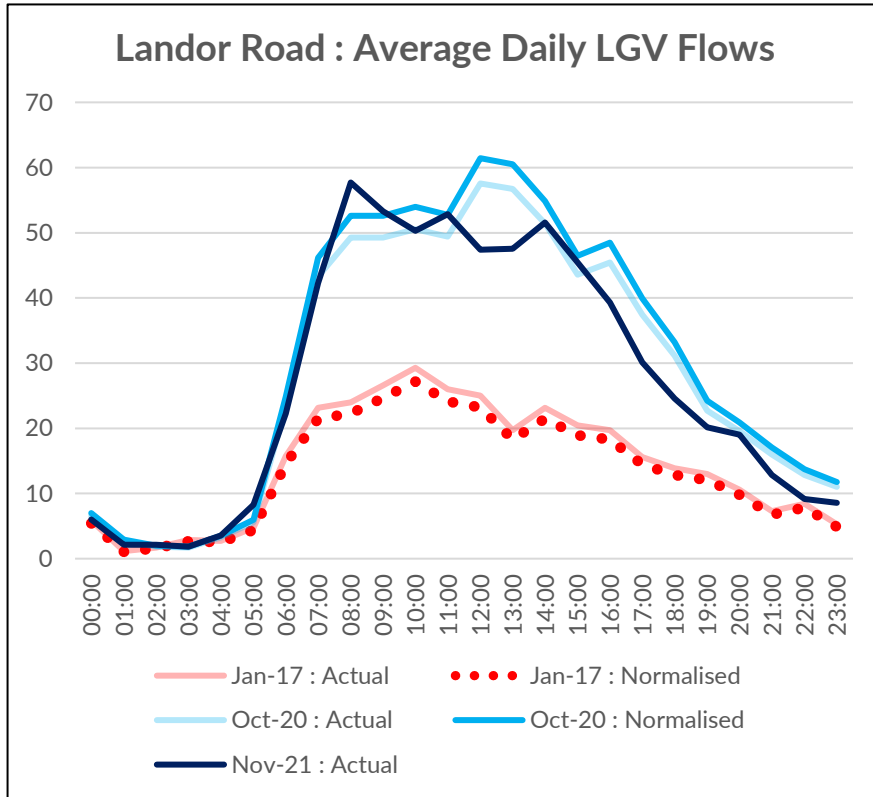
Landor Road (West)



Landor Road (West)



Landor Road (West)

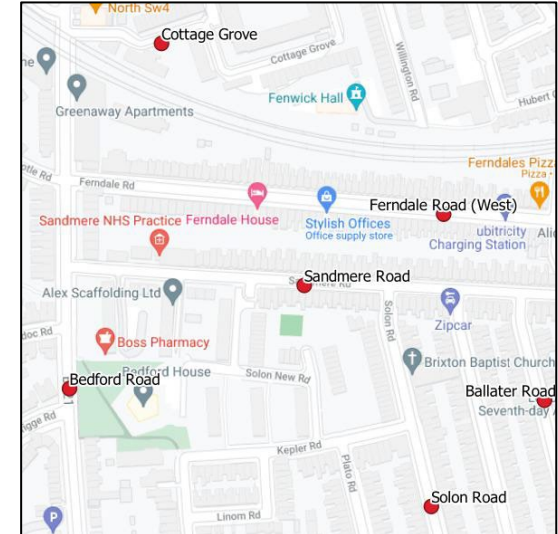
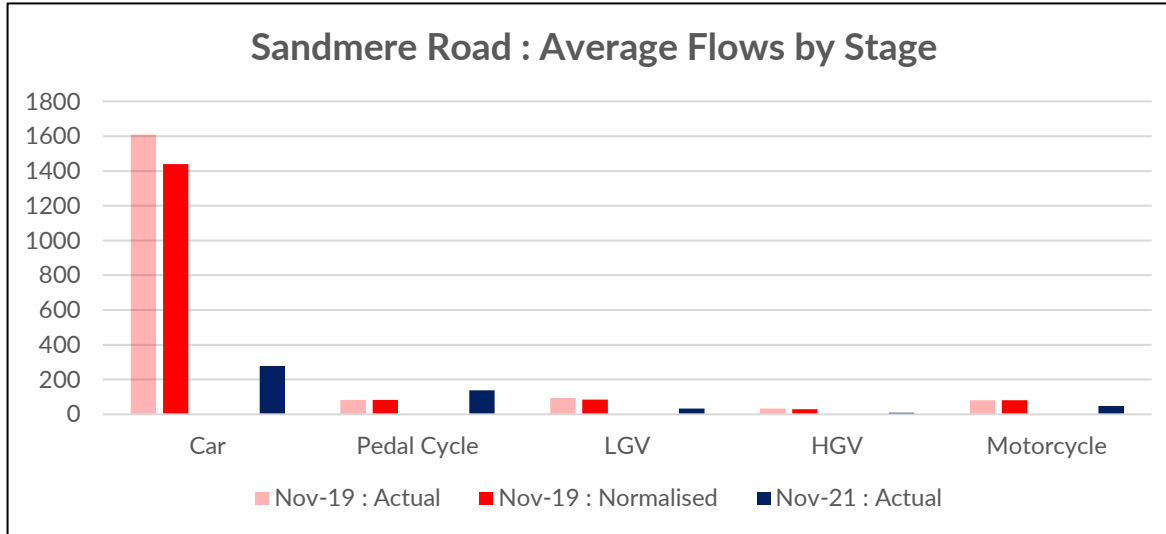


Landor Road - Summary Table

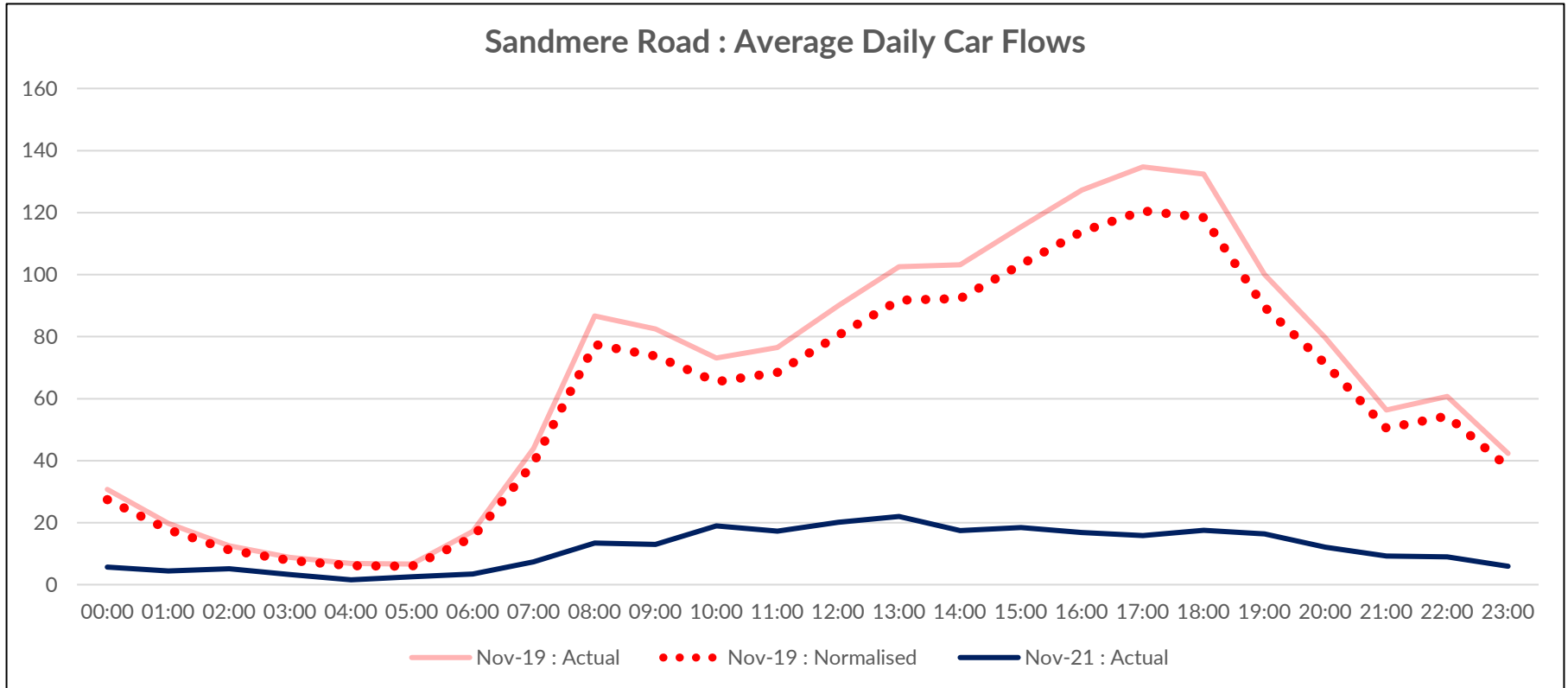
	Jan-17 : Actual	Jan-17 : Normalised	Oct-20 : Actual	Oct-20 : Normalised	Jan-17 -> Oct-20 : Actual Difference	Jan-17 -> Oct-20 : Actual % Difference	Jan-17 -> Oct-20 : Normalised Difference	Jan-17 -> Oct-20 : Normalised % Difference	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	4,810	4,461	6,544	6,983	1,734	36%	2,522	57%	6,510	6,510	1,700	35%	2,049	46%
Cycle	254	254	534	534	280	110%	280	110%	515	515	261	103%	261	103%
HGV	268	248	67	71	-201	-75%	-177	-71%	62	62	-206	-77%	-186	-75%
LGV	346	321	692	739	347	100%	418	130%	658	658	313	90%	338	105%
Motorcycles	260	260	471	471	212	82%	212	82%	492	492	232	90%	232	90%
Total Motorised Vehicles	5,423	5,030	7,303	7,793	1,880	35%	2,763	55%	7,230	7,230	1,807	33%	2,200	44%

Sandmere Road (Daily Flows)

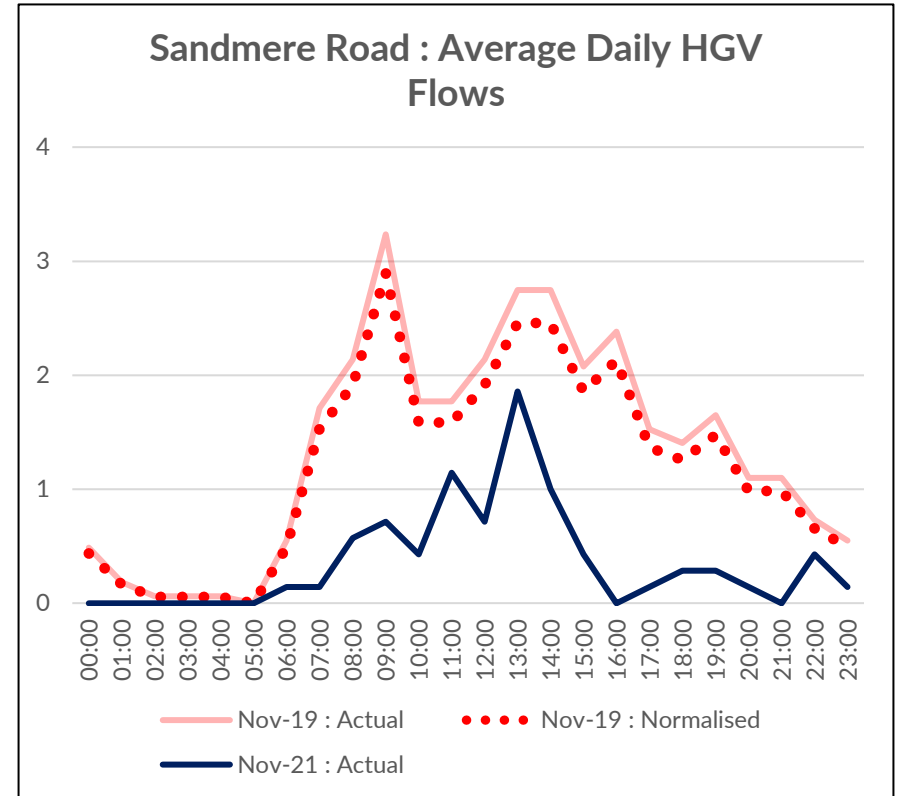
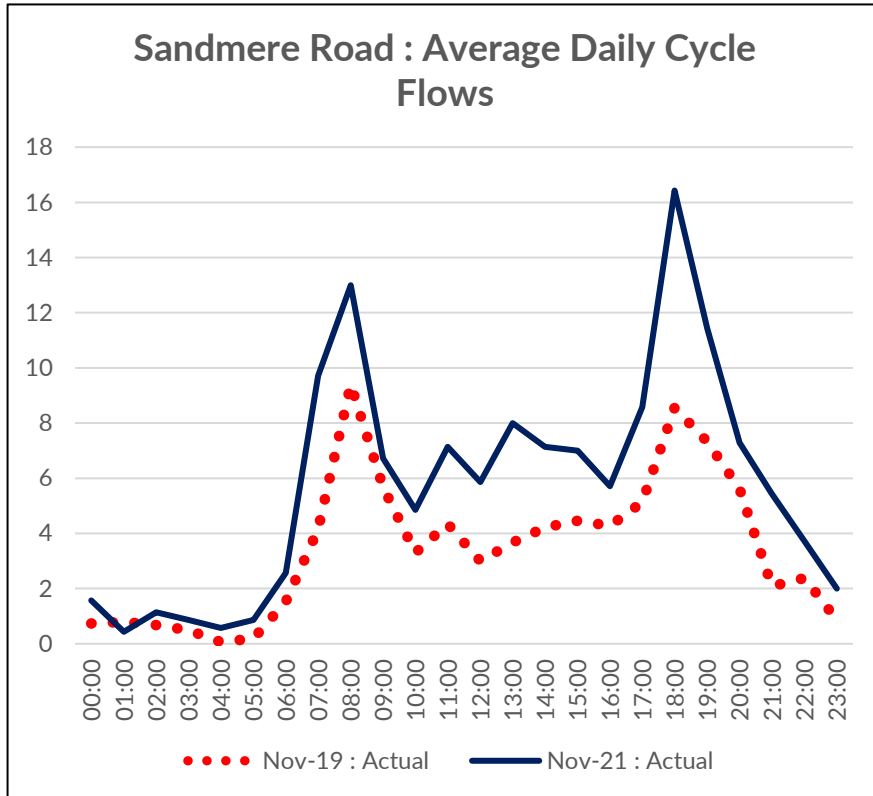
- The charts below and on the following pages show the normalised average daily flows on Sandmere Road, showing the difference between Flow-adjusted pre-implementation flows from November 2019 and post-implementation flows from late November/early December 2021.



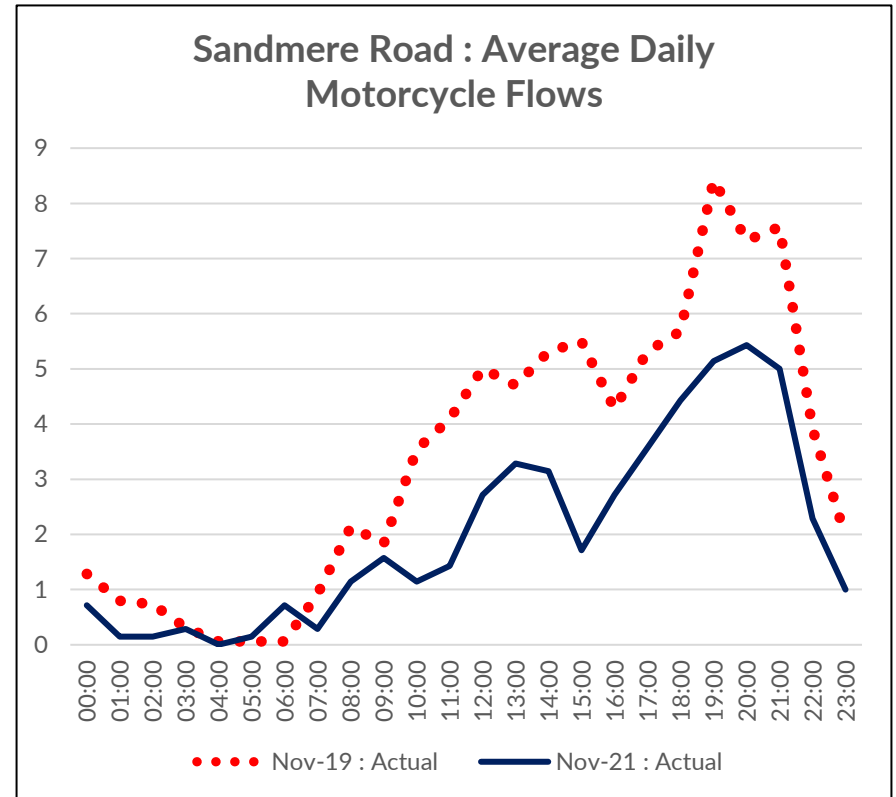
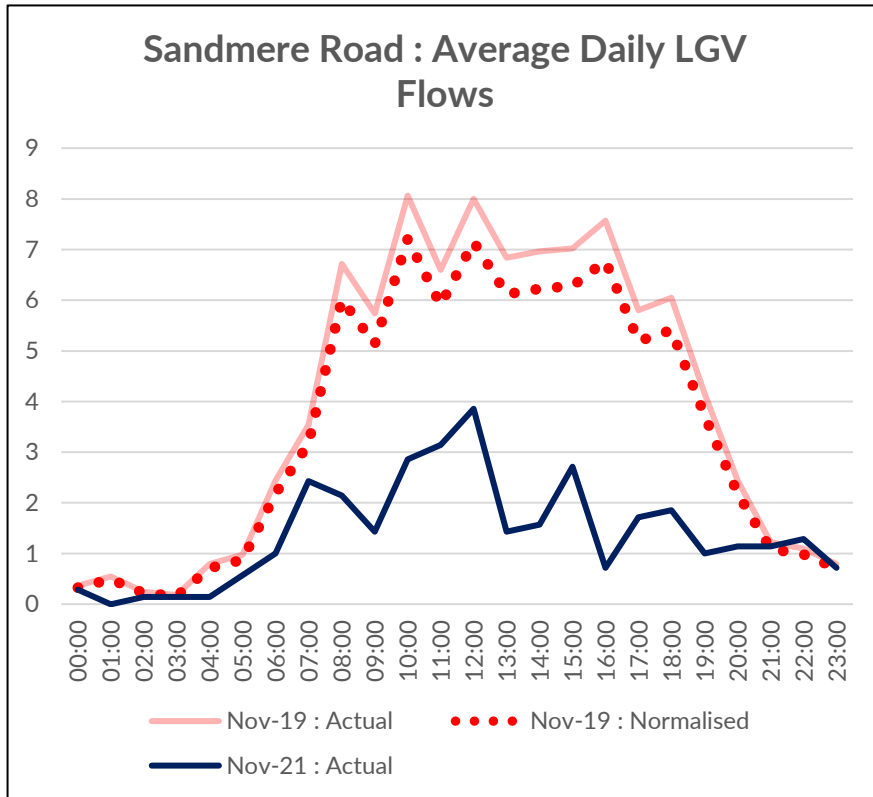
Sandmere Road



Sandmere Road



Sandmere Road

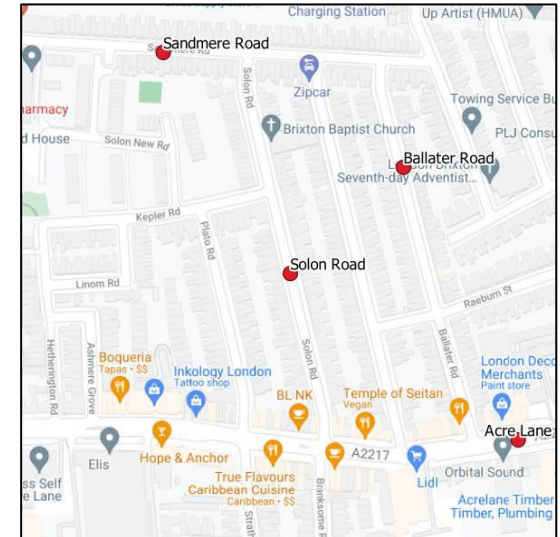
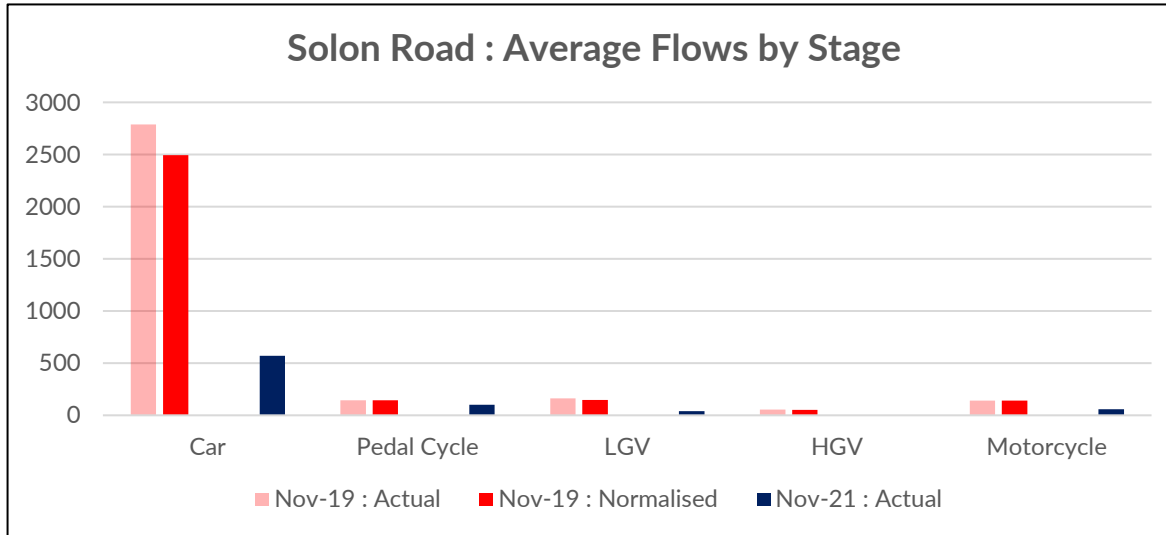


Sandmere Road - Summary Table

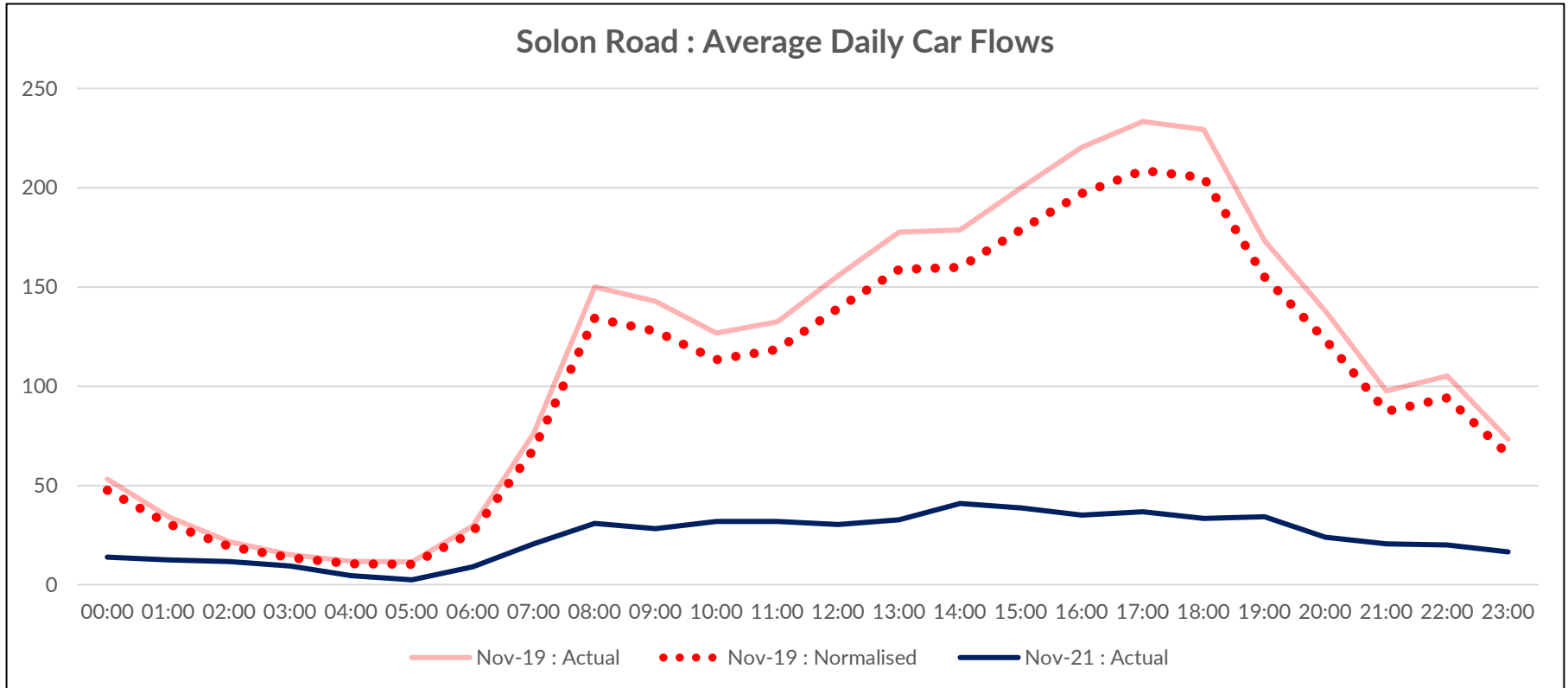
	Nov-19 : Actual	Nov-19 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	1,610	1,440	277	277	-1,332	-83%	-1,163	-81%
Cycle	83	83	138	138	55	67%	55	67%
HGV	32	29	9	9	-24	-73%	-20	-70%
LGV	94	84	33	33	-61	-65%	-51	-60%
Motorcycles	81	81	48	48	-33	-40%	-33	-40%
Total Motorised Vehicles	1,736	1,553	319	319	-1,417	-82%	-1,234	-79%

Solon Road (Daily Flows)

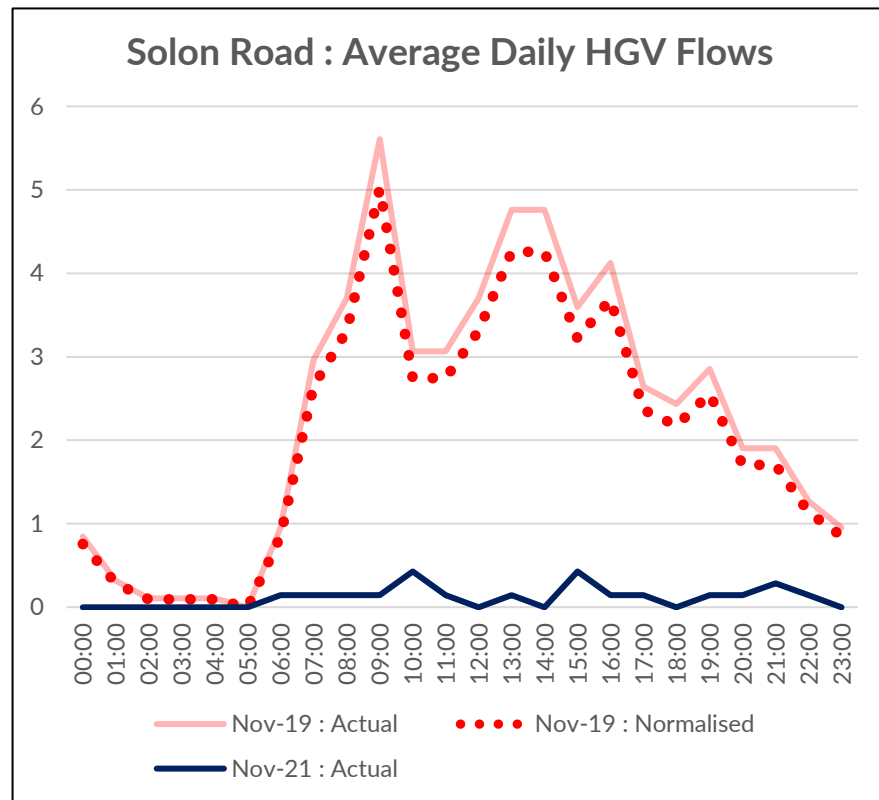
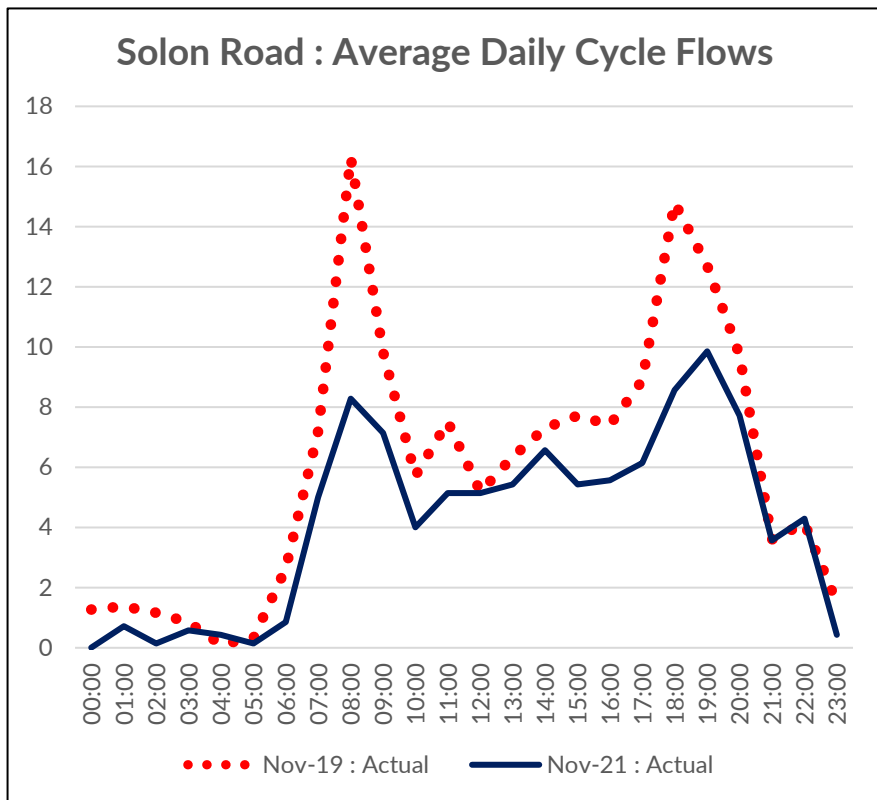
- The charts below and on the following pages show the normalised average daily flows on Solon Road, showing the difference between Flow-adjusted pre-implementation flows from November 2019 and post-implementation flows from late November/early December 2021.
- As this site uses The Flow to derive pre-implementation data, the hour-by-hour profile of flows has been approximated using a nearby road based on the daily vehicle volumes provided by The Flow.



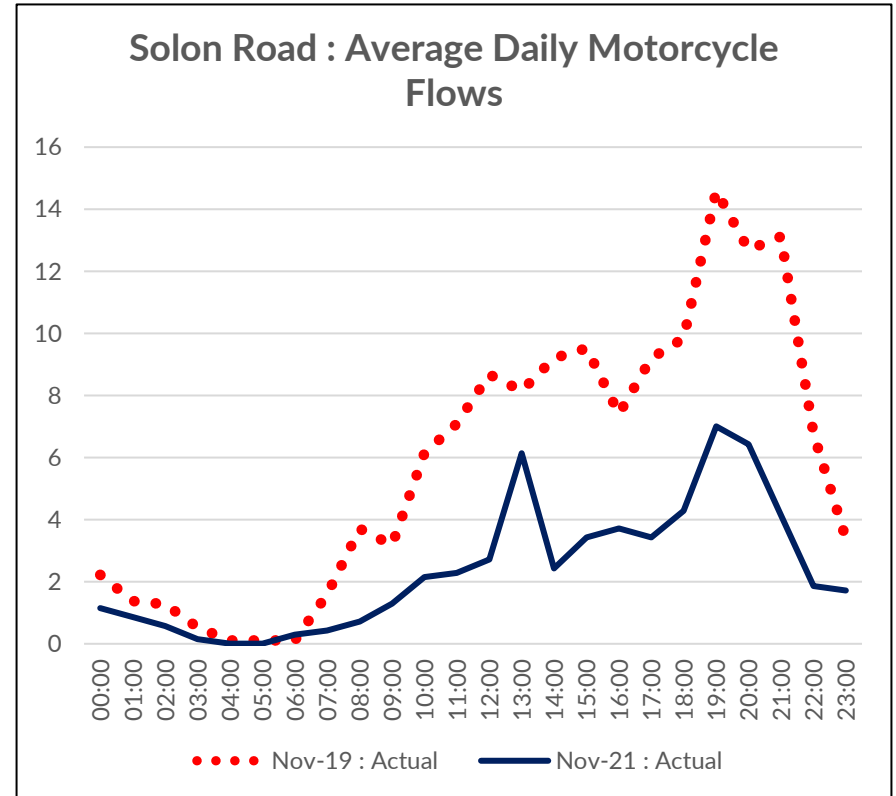
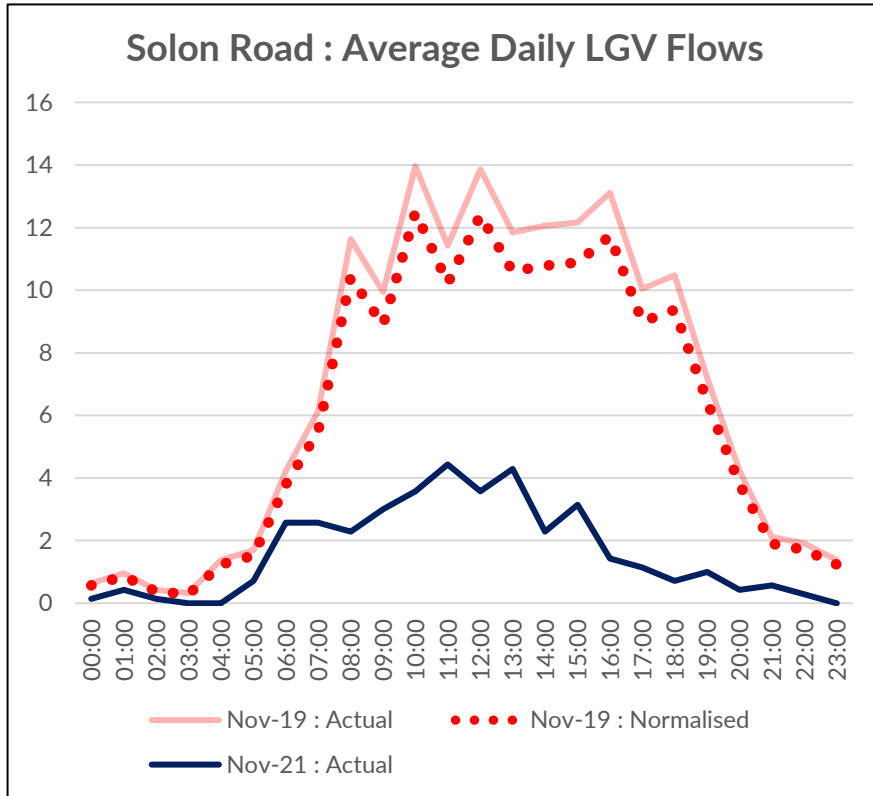
Solon Road



Solon Road



Solon Road

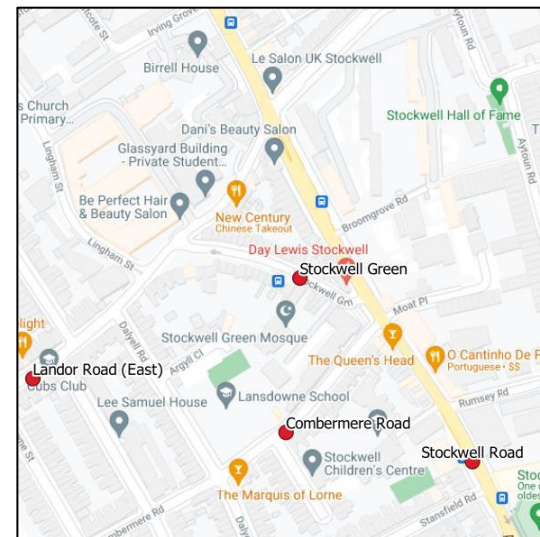
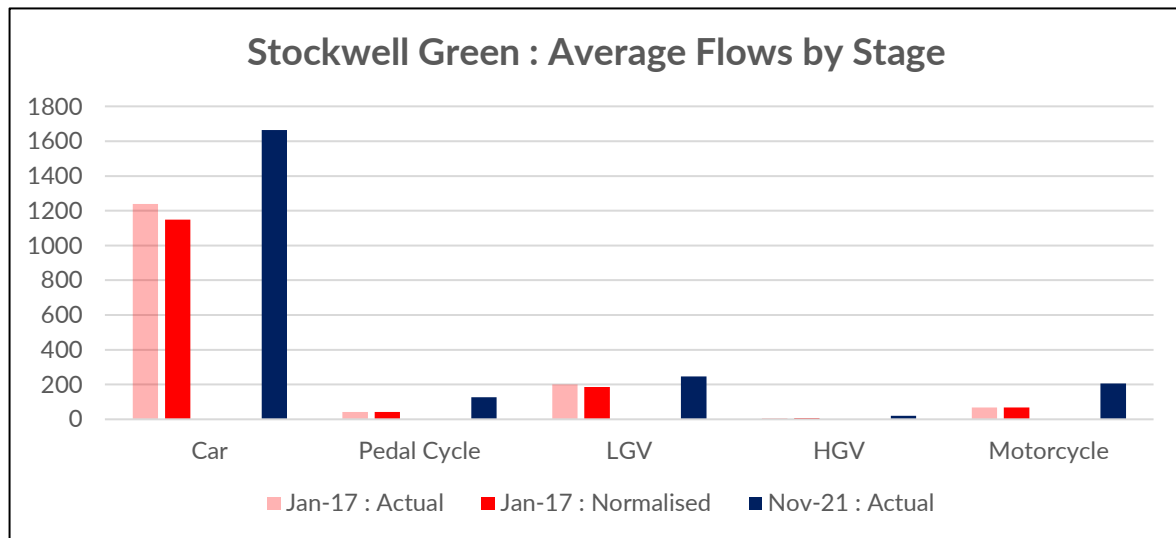


Solon Road - Summary Table

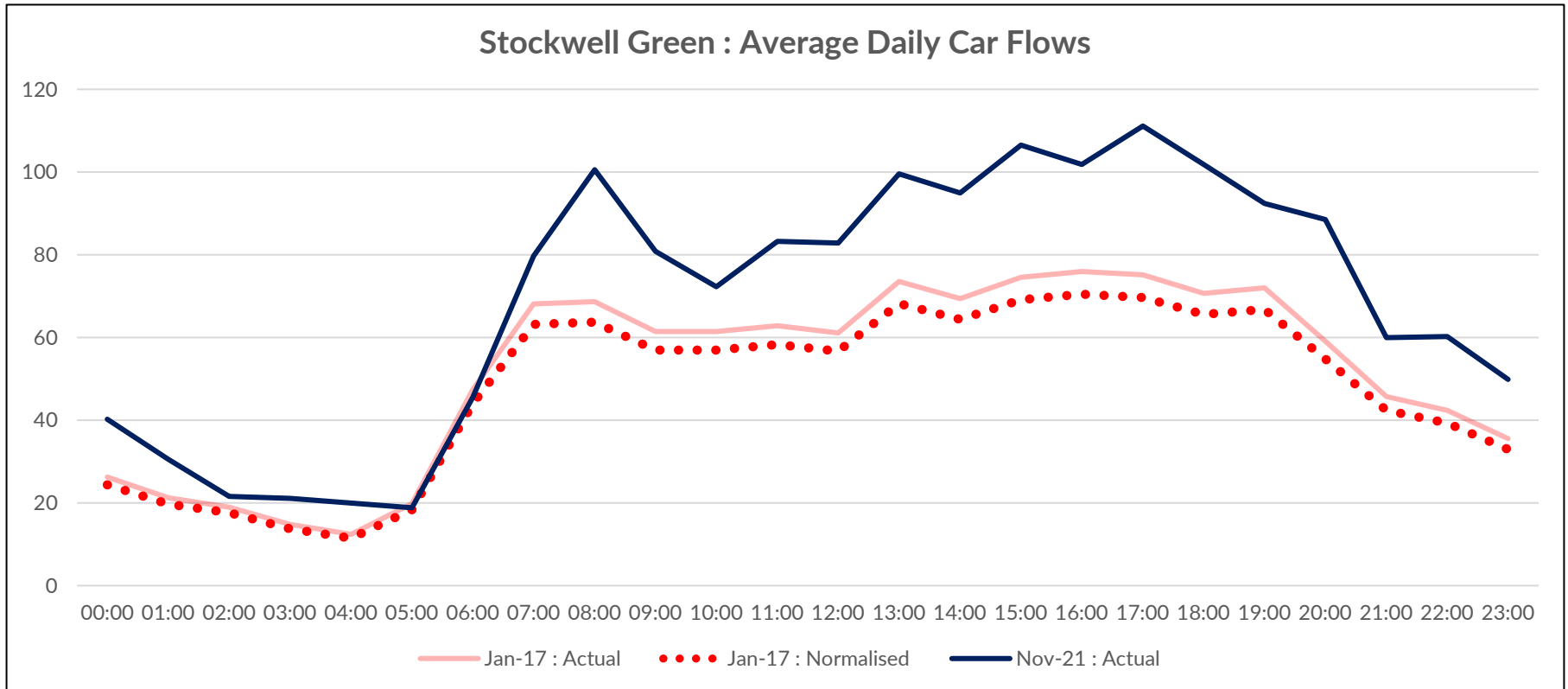
	Nov-19 : Actual	Nov-19 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	2,789	2,495	571	571	-2,218	-80%	-1,924	-77%
Cycle	144	144	101	101	-42	-30%	-42	-30%
HGV	56	50	3	3	-53	-95%	-47	-95%
LGV	163	146	39	39	-124	-76%	-107	-73%
Motorcycles	140	140	57	57	-83	-59%	-83	-59%
Total Motorised Vehicles	3,007	2,691	612	612	-2,395	-80%	-2,079	-77%

Stockwell Green (Daily Flows)

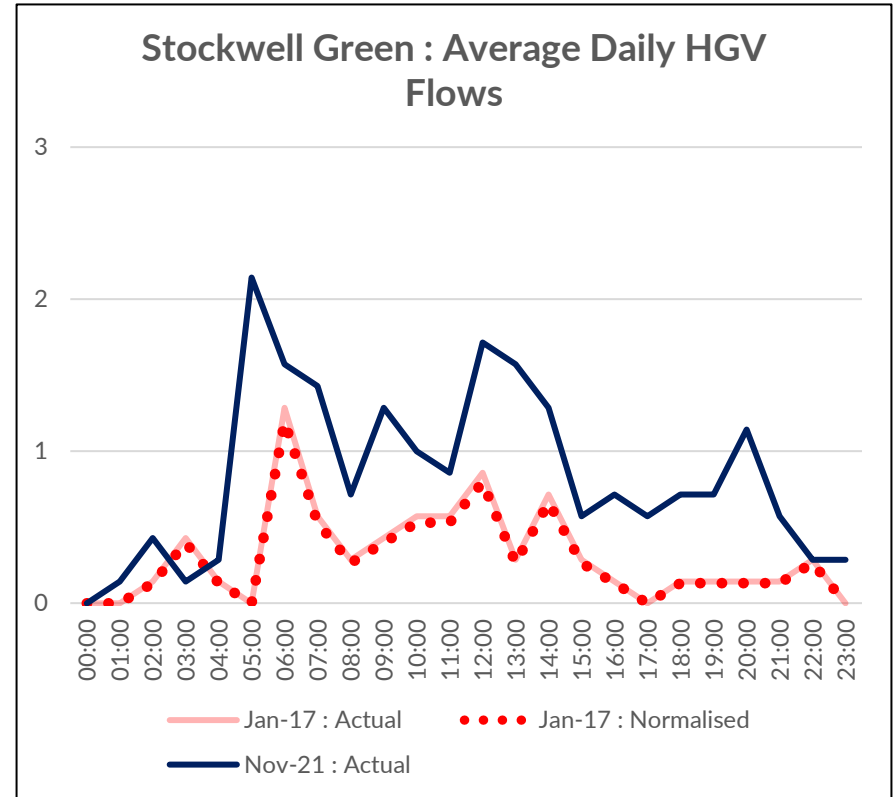
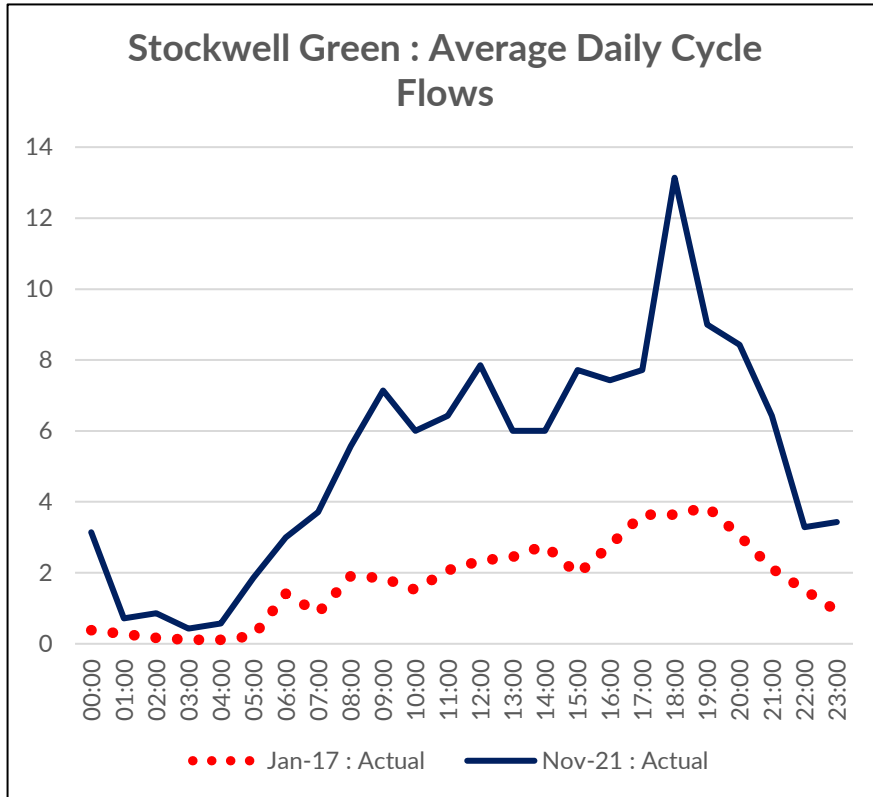
- The charts below and on the following pages show the normalised average daily flows on Stockwell Green, showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from late November/early December 2021.



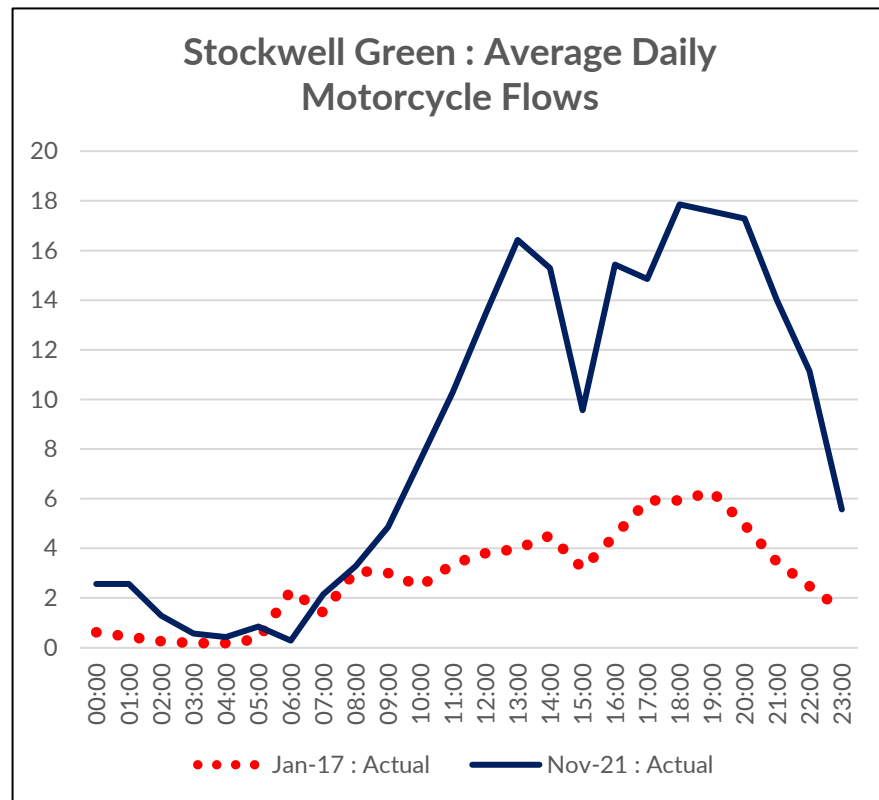
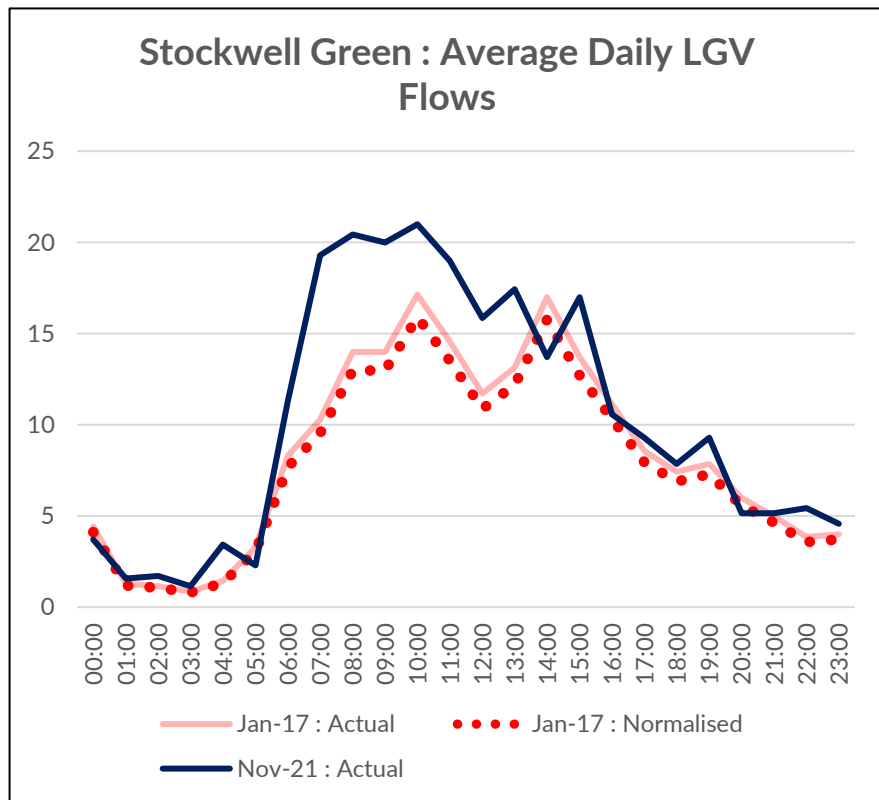
Stockwell Green



Stockwell Green



Stockwell Green

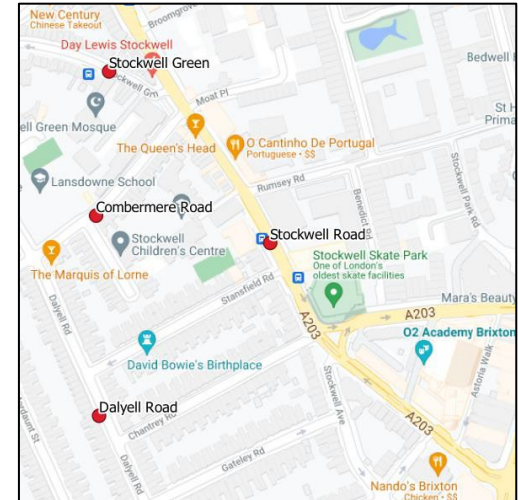


Stockwell Green - Summary Table

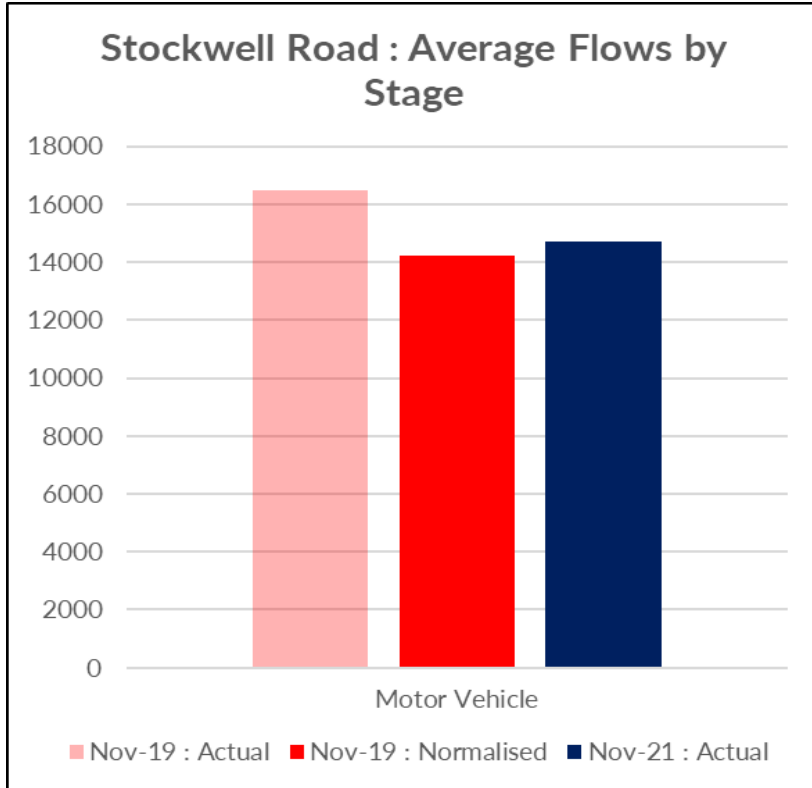
	Jan-17 : Actual	Jan-17 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	1,239	1,149	1,665	1,665	426	34%	515	45%
Cycle	42	42	126	126	84	201%	84	201%
HGV	8	7	20	20	13	166%	13	187%
LGV	200	186	246	246	46	23%	61	33%
Motorcycles	68	68	205	205	137	201%	137	201%
Total Motorised Vehicles	1,447	1,342	1,931	1,931	484	33%	589	44%

Stockwell Road (Daily Flows)

- The chart and table on the following page present **average daily motor vehicle flows on Stockwell Road**, showing the difference between pre-implementation flows derived from 2018/19 Flow averages and post-implementation flows from late November/early December 2021.
- Given extremely limited historic data, baseline counts for Stockwell Road have been derived by taking the bidirectional Flow counts for the site (which only consider private vehicles) and applying an uplift factor to estimate the number of additional public vehicles (i.e. buses/taxis etc.) to define a baseline total. The uplift factor is defined as the average ratio between Flow counts and TfL ATC flows at one site on South Lambeth Road north of the A3.
- Brixton Road is classified as part of the Transport for London Road Network (TLRN), on which ATC surveys are not permitted. As such, radar counts have therefore been used for Stage 2 – however, since radar surveys are less able to disaggregate between vehicle types, analysis has only been possible through comparing total motor vehicle numbers.
- Given the lack of dependable baseline data, manual count data from the Department for Transport has been sourced to create a sensitivity test for this site.



Stockwell Road



	Nov-19 : Actual	Nov-19 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Total Motorised Vehicles	16,500	14,222	14,729	14,729	-1,772	-11%	507	4%
Total Motorised Vehicles (DfT Sensitivity) ²	13,185	11,904	14,729	14,729	1,544	12%	2,825	24%



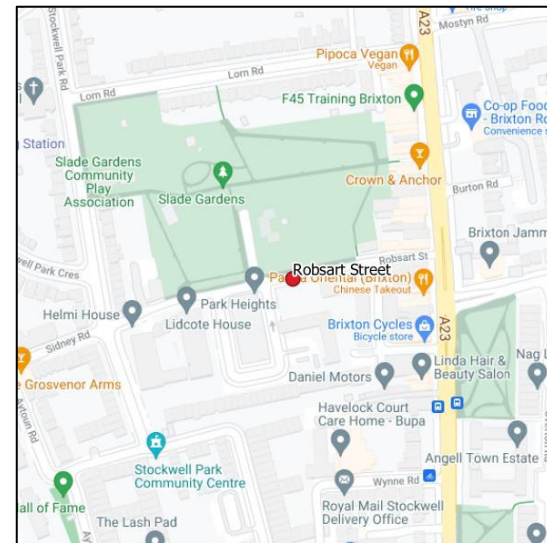
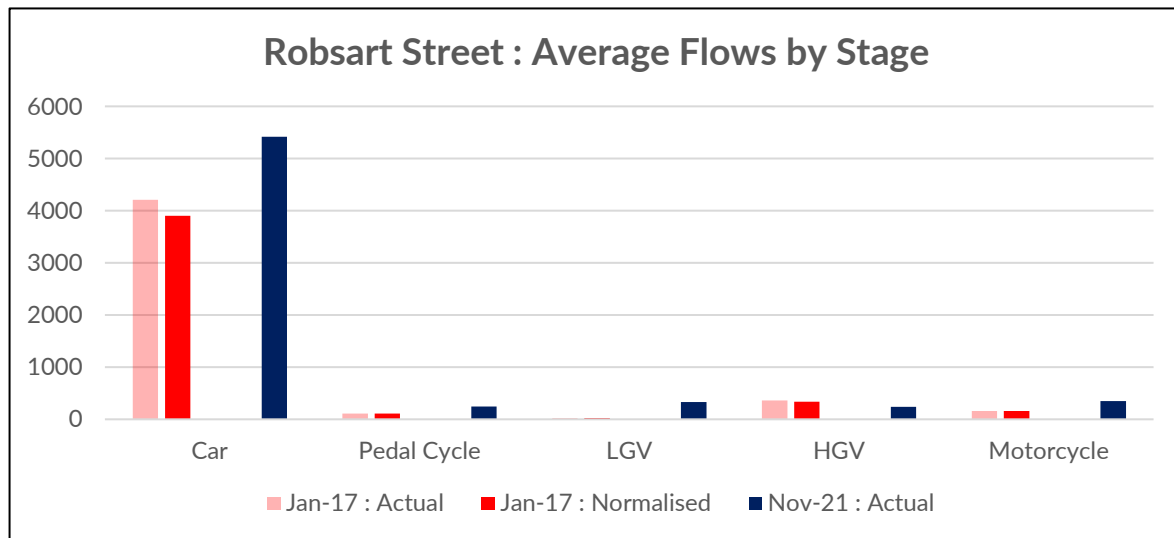
Appendix D: Additional Sites

Additional Sites

- The additional sites in the following slides are not included in the main LTN analysis as are not inside the LTN or on its boundary roads, per the analysis scope laid out in LB Lambeth's monitoring strategy.
- Monitoring was completed for these sites based on feedback provided to LB Lambeth by local residents.

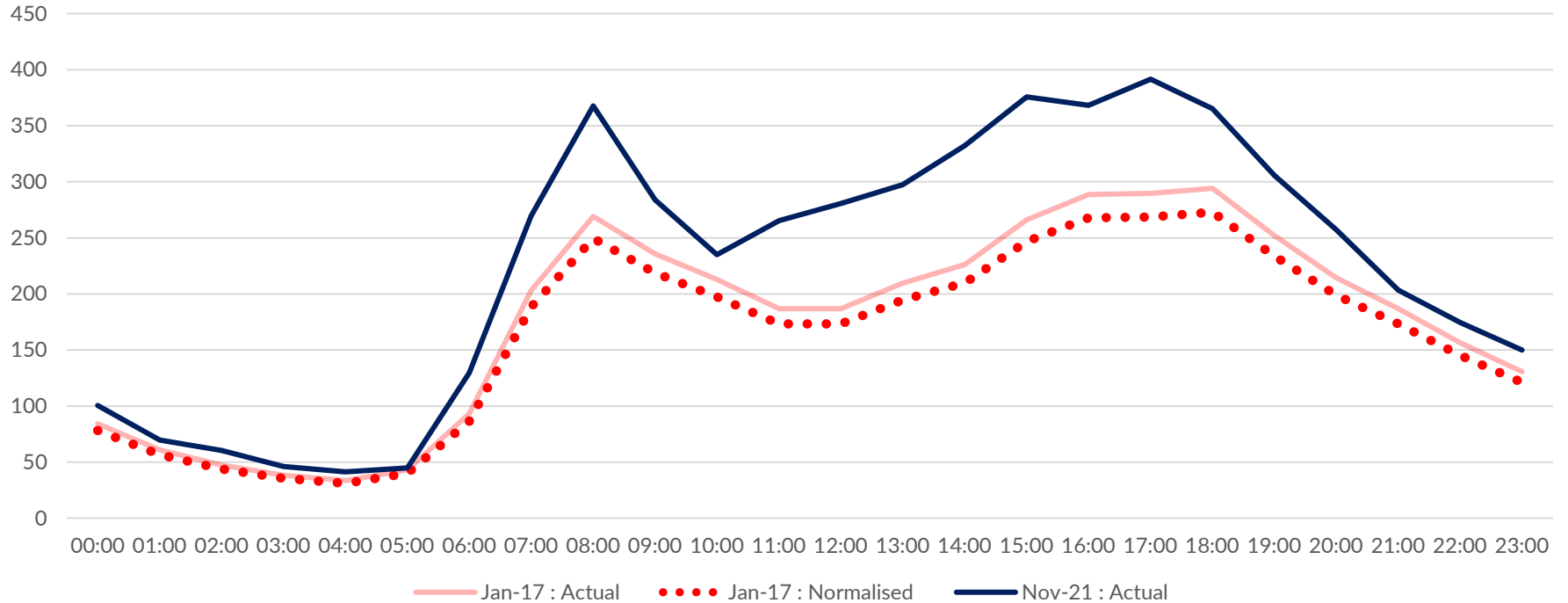
Robsart Street (Daily Flows)

- The charts below and on the following pages show the normalised average daily flows on Robsart Street, showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from late November/early December 2021.

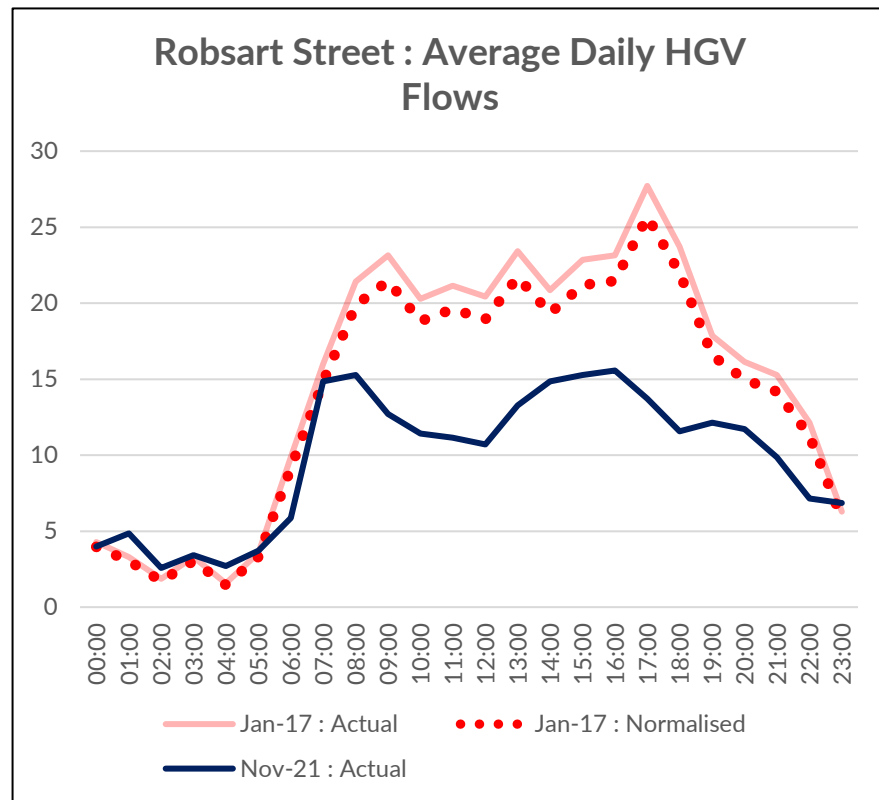
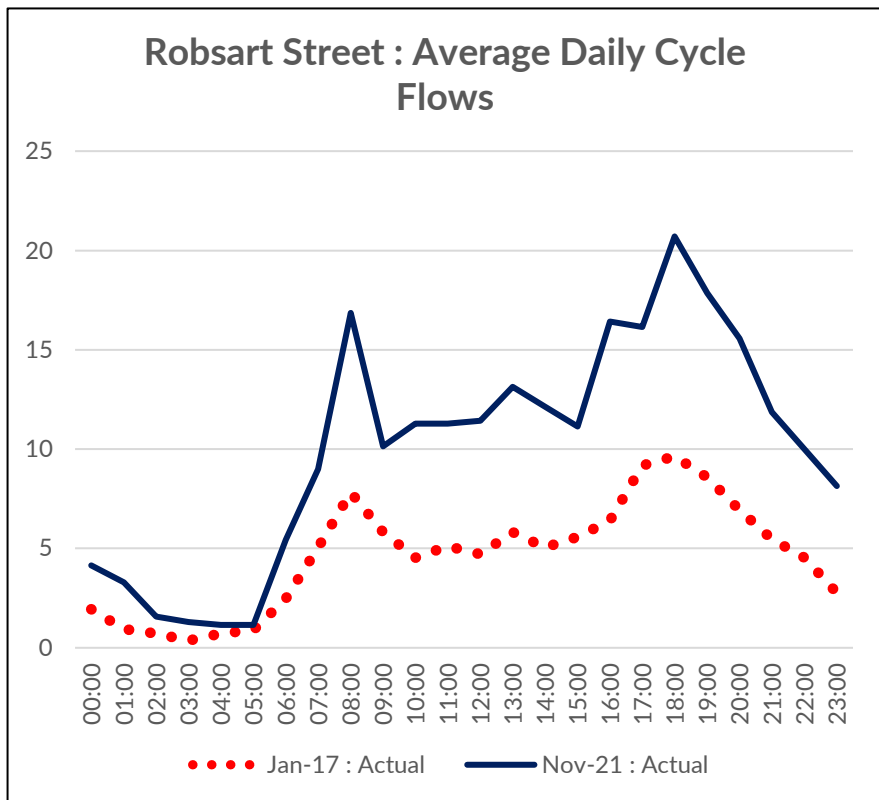


Robsart Street

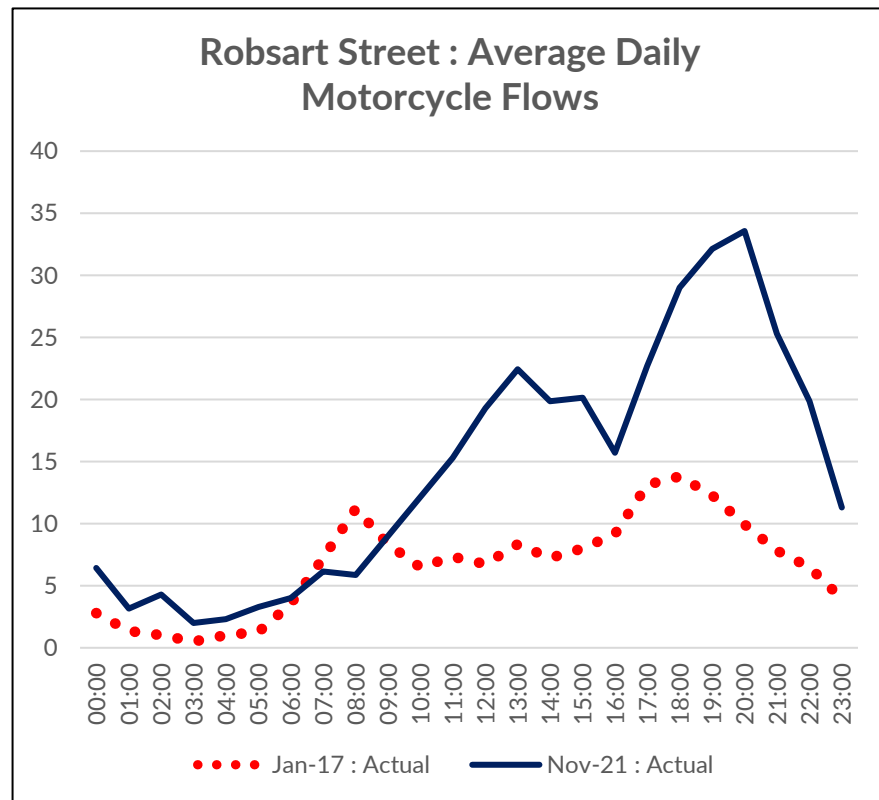
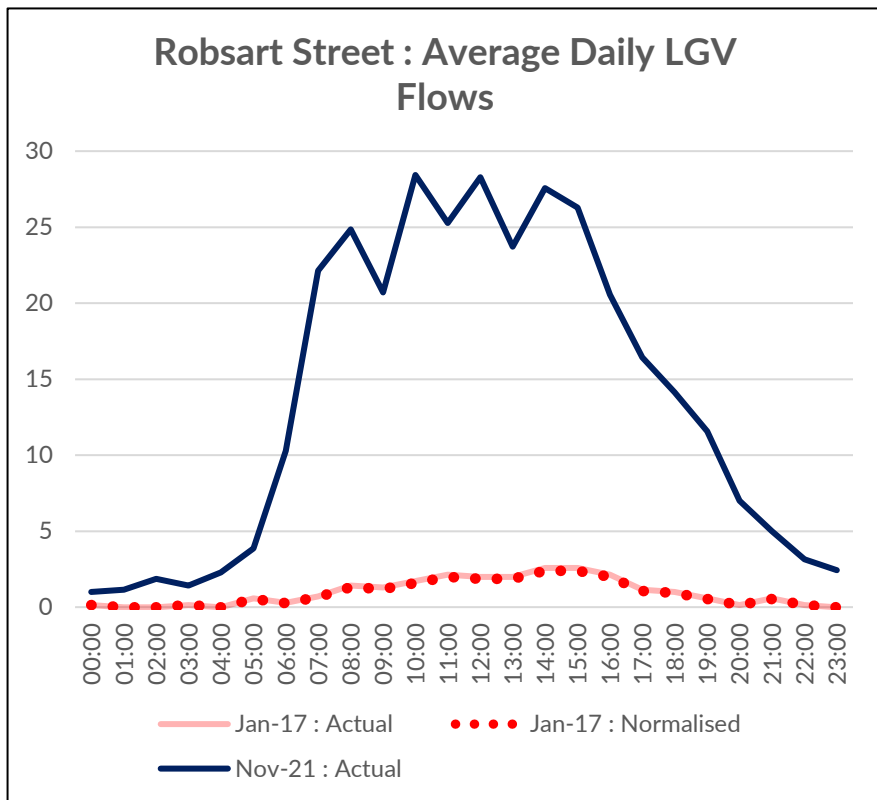
Robsart Street : Average Daily Car Flows



Robsart Street



Robsart Street

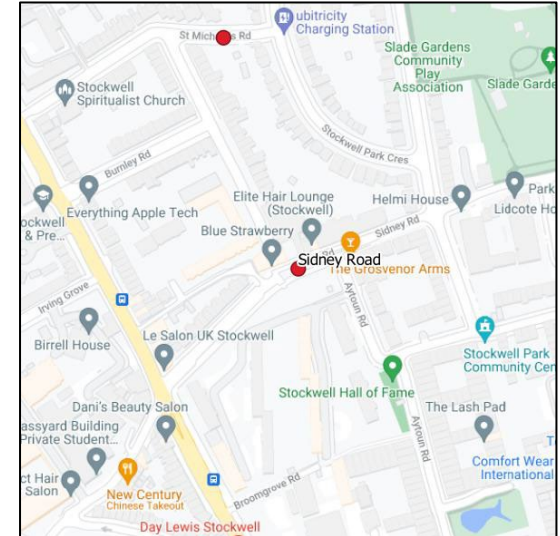
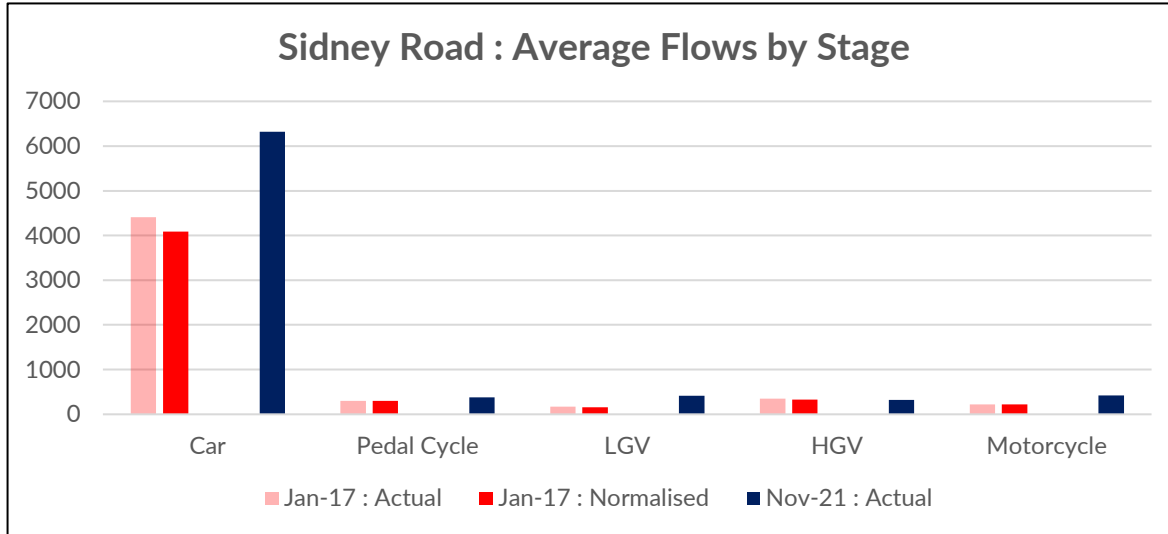


Robsart Street - Summary Table

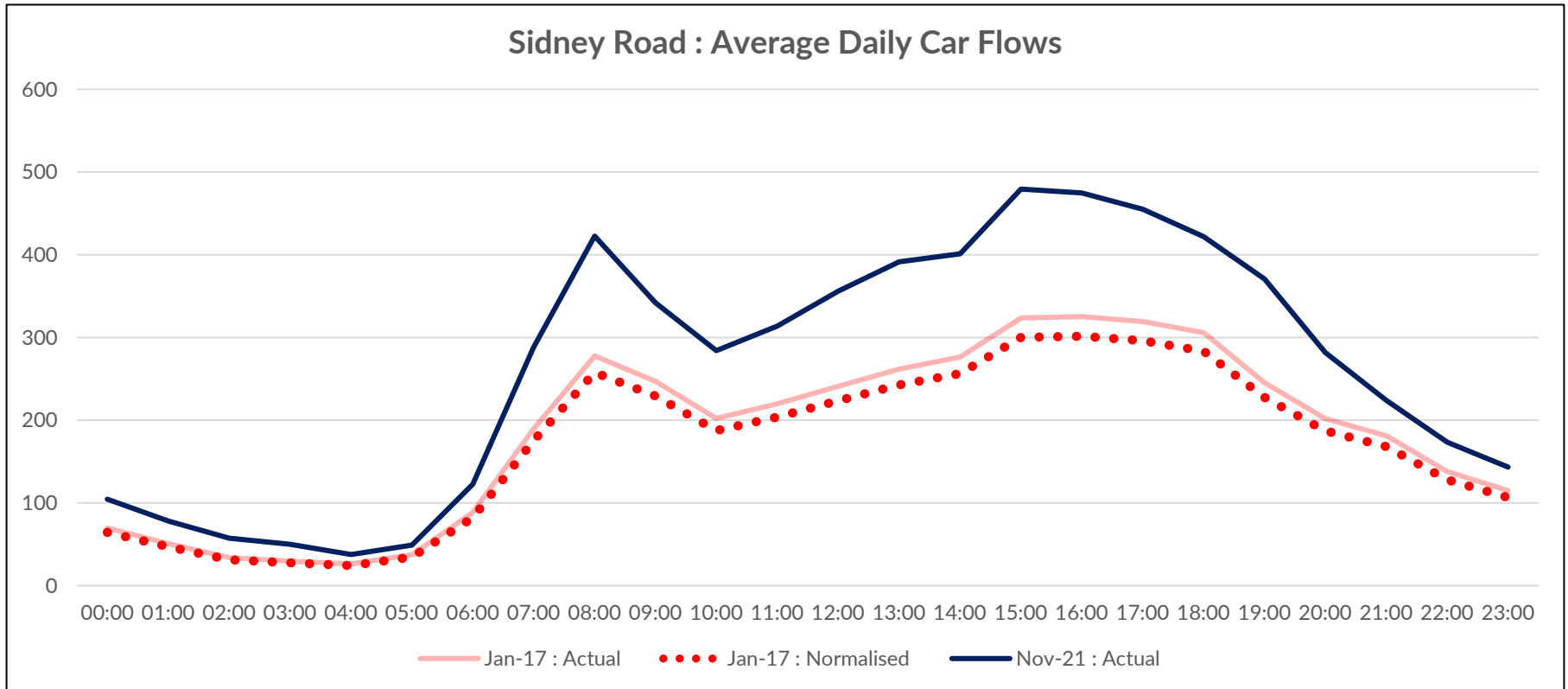
	Jan-17 : Actual	Jan-17 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	4,210	3,905	5,416	5,416	1,206	29%	1,511	39%
Cycle	111	111	241	241	130	117%	130	117%
HGV	360	334	235	235	-124	-35%	-98	-29%
LGV	23	22	329	329	306	1315%	308	1425%
Motorcycles	159	159	345	345	186	117%	186	117%
Total Motorised Vehicles	4,593	4,260	5,981	5,981	1,388	30%	1,720	40%

Sidney Road (Daily Flows)

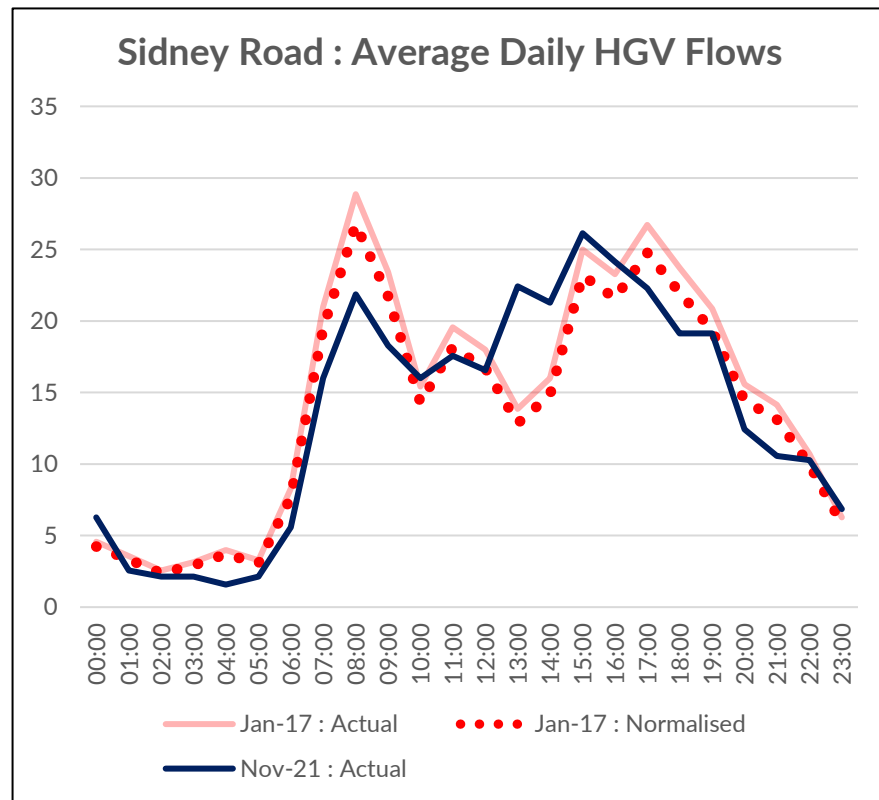
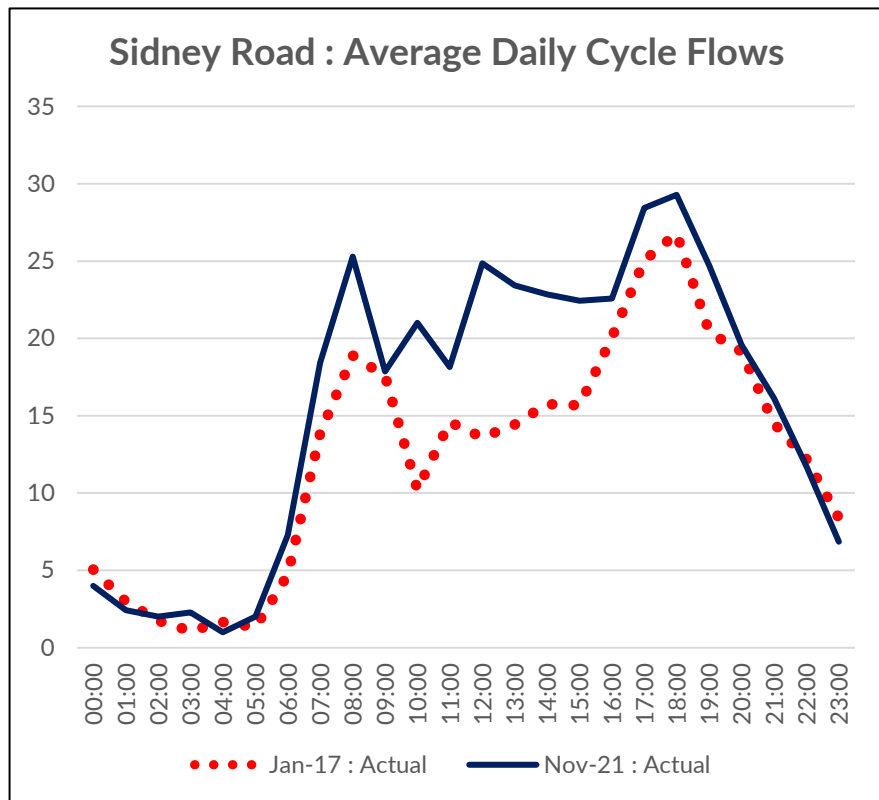
- The charts below and on the following pages show the normalised average daily flows on Sidney Road, showing the difference between pre-implementation flows collected in January 2017 and post-implementation flows from late November/early December 2021.



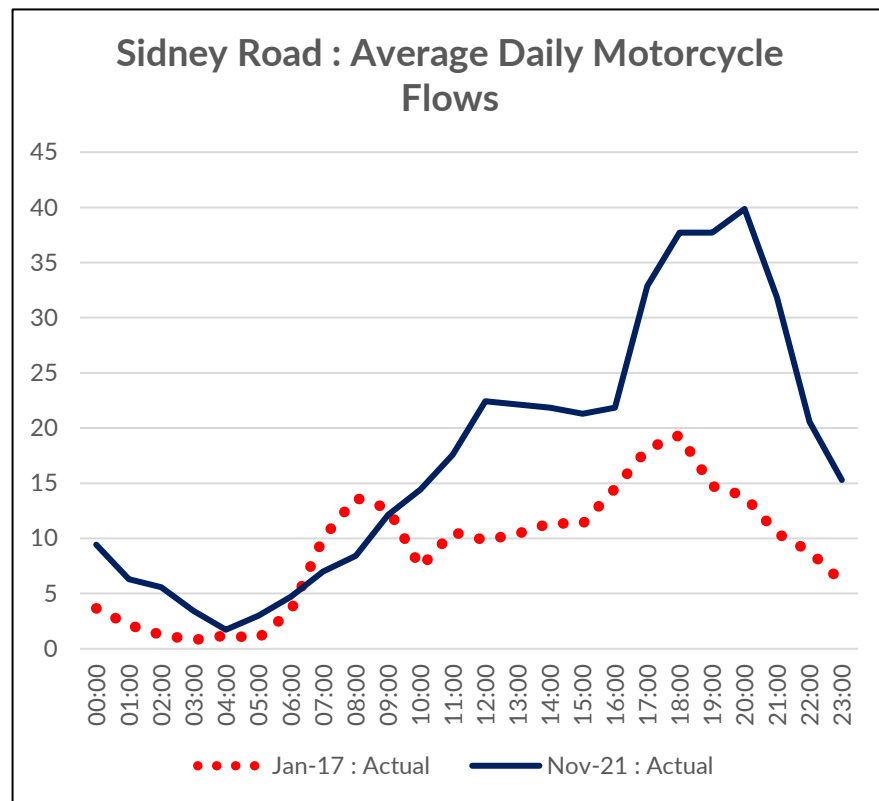
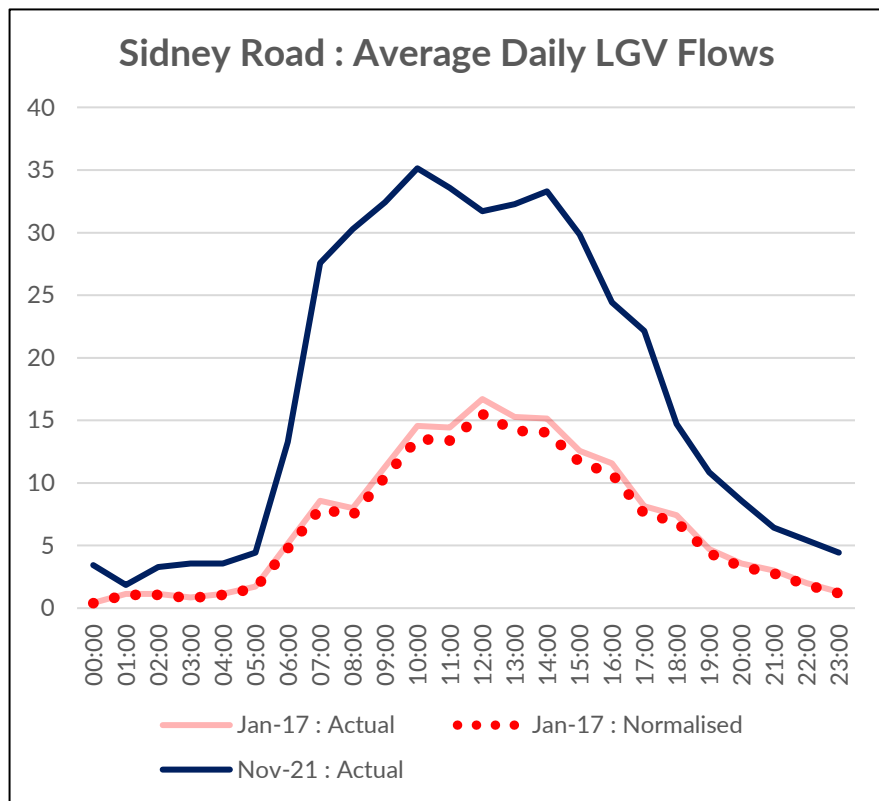
Sidney Road



Sidney Road



Sidney Road

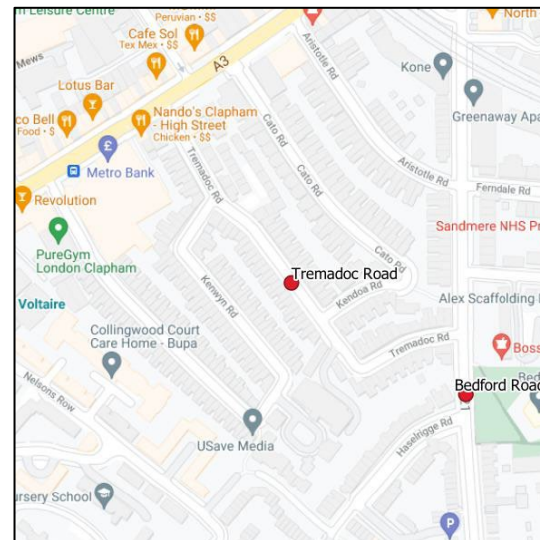
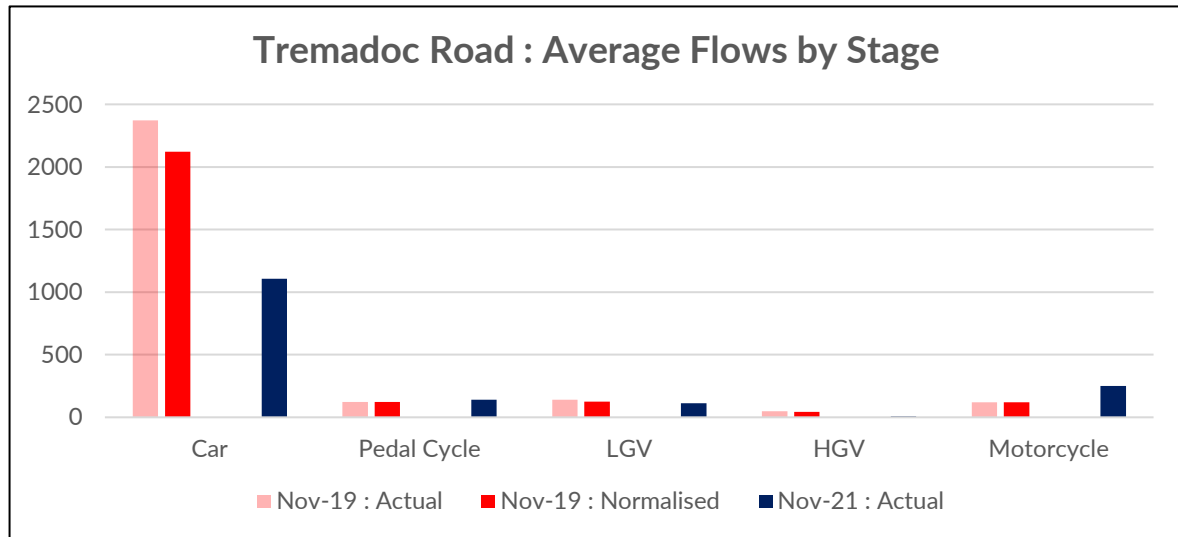


Sidney Road - Summary Table

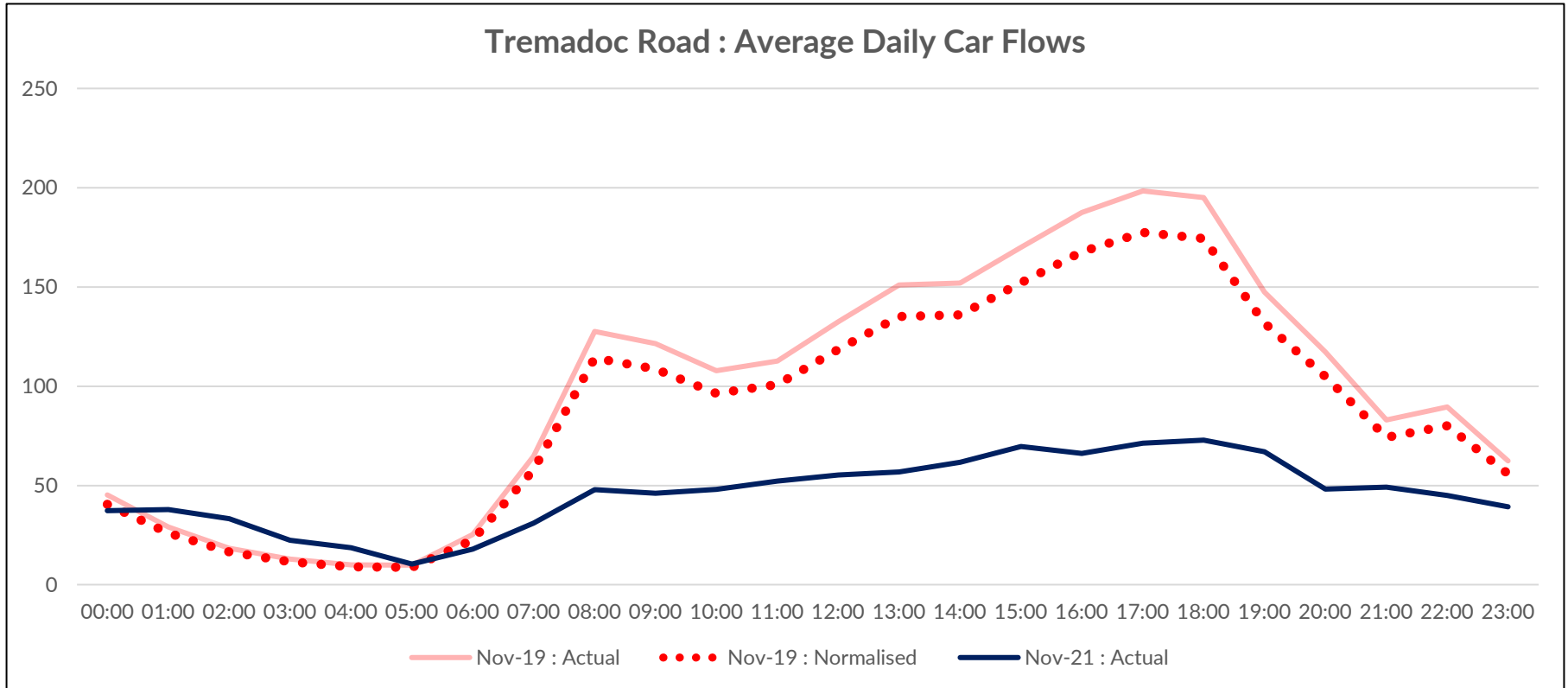
	Jan-17 : Actual	Jan-17 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Jan-17 -> Nov-21 : Actual Difference	Jan-17 -> Nov-21 : Actual % Difference	Jan-17 -> Nov-21 : Normalised Difference	Jan-17 -> Nov-21 : Normalised % Difference
Car	4,409	4,089	6,325	6,325	1,916	43%	2,236	55%
Cycle	300	300	375	375	75	25%	75	25%
HGV	352	326	323	323	-28	-8%	-3	-1%
LGV	170	158	417	417	247	145%	259	164%
Motorcycles	217	217	419	419	203	93%	203	93%
Total Motorised Vehicles	4,931	4,573	7,065	7,065	2,134	43%	2,492	54%

Tremadoc Road (Daily Flows)

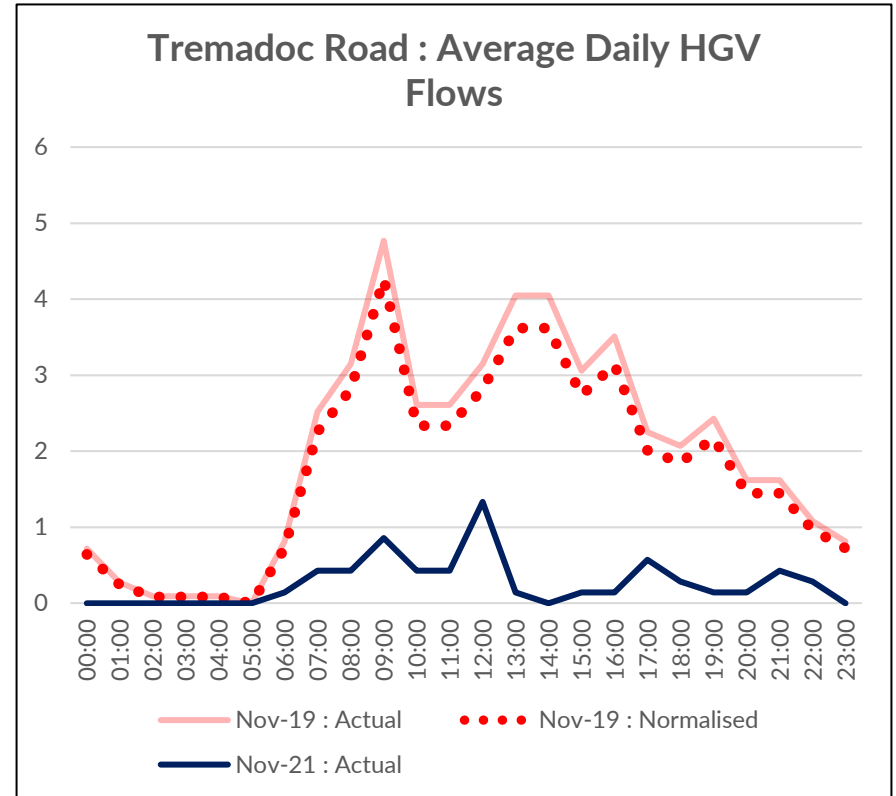
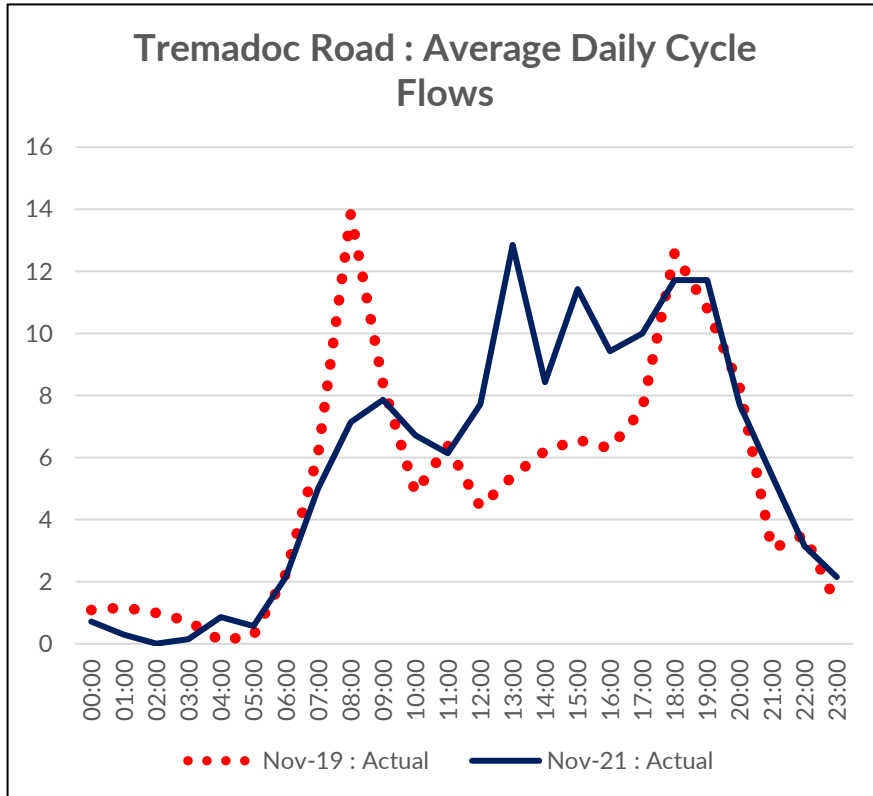
- The charts below and on the following pages show the normalised average daily flows on Tremadoc Road, showing the difference between Flow-adjusted pre-implementation flows from November 2019 and post-implementation flows from late November/early December 2021.



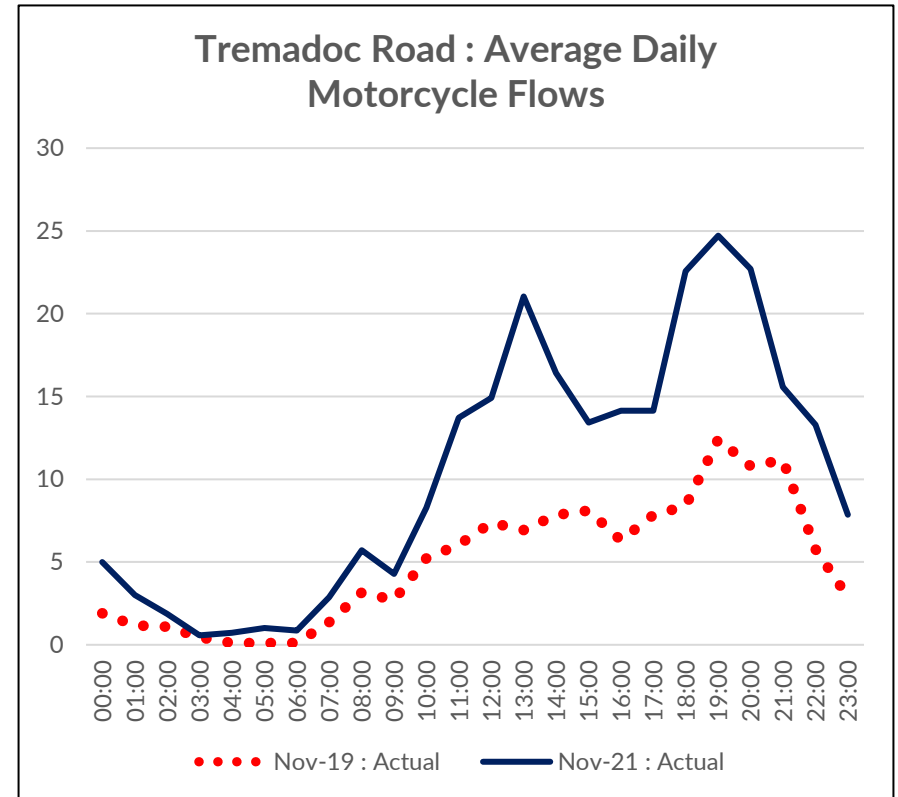
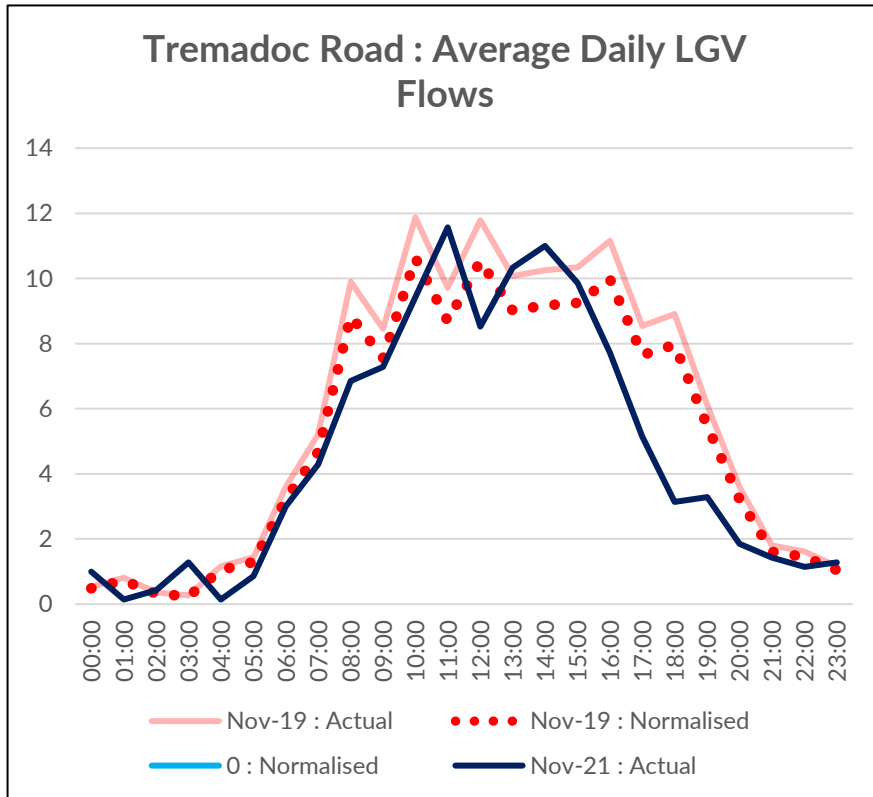
Tremadoc Road



Tremadoc Road



Tremadoc Road



Tremadoc Road - Summary Table

	Nov-19 : Actual	Nov-19 : Normalised	Nov-21 : Actual	Nov-21 : Normalised	Nov-19 -> Nov-21 : Actual Difference	Nov-19 -> Nov-21 : Actual % Difference	Nov-19 -> Nov-21 : Normalised Difference	Nov-19 -> Nov-21 : Normalised % Difference
Car	2,372	2,122	1,106	1,106	-1,266	-53%	-1,016	-48%
Cycle	122	122	139	139	17	14%	17	14%
HGV	47	42	6	6	-41	-87%	-36	-85%
LGV	139	124	111	111	-28	-20%	-13	-11%
Motorcycles	119	119	249	249	130	109%	130	109%
Total Motorised Vehicles	2,558	2,288	1,223	1,223	-1,335	-52%	-1,065	-47%