Healthy Neighbourhood – Monitoring Review

Olive Road Area

London Borough of Brent

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Brent

PROJECT CENTRE

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Executive Summary

London Borough of Brent (LBB) introduced five Healthy Neighbourhoods (HNs) on a trial basis in August / September 2020. HNs comprise a group of residential streets where vehicle traffic that isn't local to the area is either discouraged or removed by introducing modal filters in the form of signs, barriers and planters. The aim is to tackle drivers using the street as a short cut, to make it safer and easier to walk and cycle, restore quieter streets and improve air quality.

The HNs introduced were at Preston Road, Dollis Hill, Olive Road, Stonebridge & Harlesden, and Wembley and LBB commissioned Project Centre to undertake a review each location to determine the effect each HN had on the surrounding local road network. This report will focus on the area of Olive Road.

The review consists of analysis of a series of traffic counts, bus journey time data, collision data, air quality monitoring and consultation responses. Traffic counts were conducted prior to the schemes being introduced and further counts undertaken after installation to determine any changes in traffic flows.

The traffic surveys conducted on boundary roads indicate a reduction in volume on all the boundary roads surveyed (Cricklewood Broadway, Chichele Road and Anson Road). Bus journey times show improvements for two of the four services operating around the HN. Journey times for the two services operating along Anson Road whereas services using Cricklewood Broadway saw increased journey times.

For the internal roads surveyed all saw increased traffic volumes although flows were generally quite low and therefore may be susceptible to quite small changes in traffic movements locally.

The air quality monitoring indicates improvements in NO2 at all four test locations both over the duration of the monitoring and compared to the 2016 baseline figures. The figures have not been adjusted and therefore can't be compared with UK limits.

Collision data indicates an increase in the rate of collisions on the boundary roads, mainly on Cricklewood Broadway, while a small decrease was seen in the collision rate on roads within the HN. However, the period looked at after introduction of the HN measures is considerably shorter than would normally be considered and therefore further analysis may be necessary in the future to identify trends.

Response to the consultation from residents living within the zone was relatively high (19%) and was predominantly not supportive of the HN measures (22% in favour, 78% against). Similar levels of support from responses from roads where the restrictions were implemented was similar.

Similar types of schemes have been introduced across many parts of London, particularly to provide safer conditions for increased levels of cycling and walking during recovery from the Covid19 pandemic. It is recommended that consideration is given to undertaking further engagement with residents on a scheme incorporating enforcement (ideally using CCTV camera enforcement) so that the anticipated lower traffic volumes can be realised, and more active travel options adopted by residents.

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1. Introduction

1.1 London Borough of Brent commissioned Project Centre to review a variety of traffic data relating to the Dollis Hill, Olive Road, Stonebridge & Harlesden, and Wembley Healthy Neighbourhood (HN) areas. This report will focus on the area of Olive Road.

1.2 A series of traffic counts were undertaken using Automated Traffic Counts (ATCs) to indicate changes to traffic volumes within the area and on the surrounding boundary roads. Air Quality monitoring diffusion tubes were deployed to measure air pollutants and iBus data was collected to record bus journey times and identify any effects on bus services.

1.3 Collision data was taken from TfL's Road Danger Reduction dashboard for the period before and after implementation of the scheme.

1.4 The analysis of these data sets is described in the following sections.

Fig. 1.1: Olive Road Area Healthy Neighbourhood Modal Filters

2. Traffic Data Analysis

2.1 Data Collection

2.1.1 In order to identify any changes to traffic flows on the roads within the HN (Temple Road, Mora Road, Ashford Road, Oaklands Road, Olive Road (west of St. Michaels Road, Olive Road (east of St. Michaels Road), Sneyd Road, Cedar Road and Agave Road) and on the boundary roads (Cricklewood Broadway, Chichele Road and Anson Road), a series of Automated Traffic Counts (ATCs) were undertaken. The ATC survey locations are shown on Fig 2.1 below and were carried out over a period of seven days on three separate periods:

- 'Before' Survey – September 2020
- 'After' Survey – February 2021
- 'Final' Survey – May 2021.

2.1.2 However, due to the effect of vehicles parking on ATCs, there are some periods in the surveys where the data is empty. These will have to be considered when comparing some results, however it is believed that the surveys are complete enough to be considered an accurate representation of the overall traffic volumes. Table 1 below shows the dates the surveys were carried out.

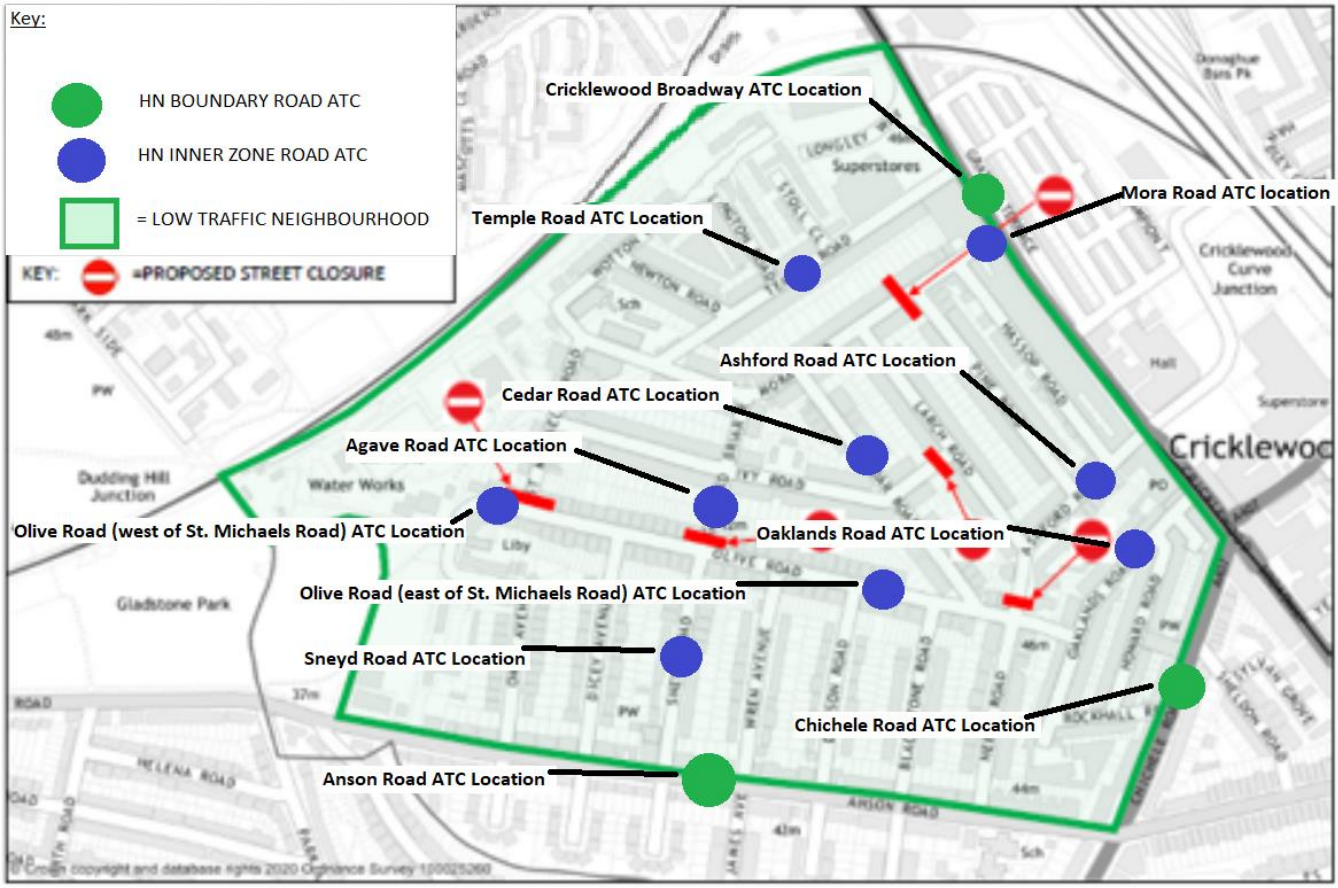


Fig 2.1: ATC Locations

ATCs	Before	After (no. 1)	After (no. 2)
HN Boundary Road ATCs			
Cricklewood Broadway	14/0920 – 20/09/20	06/02/21 - 12/02/21	19/05/21 - 25/05/21
Chichele Road			
Anson Road			
HN Internal Road ATCs			
Temple Road	02/09/20 – 08/09/20	06/02/21 – 12 / 02/21	19/05/21 - 25/05/21
Mora Road			
Ashford Road			
Oaklands Road			
Olive Road (west of St. Michaels Road)		15/02/21 - 21/02/21	
Olive Road (east of St. Michaels Road)			
Sneyd Road		06/02/21 – 12 / 02/21	
Cedar Road			
Agave Road			

Table 2.1 - Traffic Survey Locations and Dates

2.2 Considerations

2.2.1 The traffic surveys were conducted at various times during the COVID-19 pandemic and may not represent typical conditions due to restrictions about travel and public transport, etc. According to the Department for Transport (DfT), data regarding travel modes during the COVID-19 pandemic (Transport Use During the Coronavirus (COVID-19) Pandemic), indicates that traffic flows in

August and September 2020 were at 93% and 95% respectively, when compared to those recorded in February 2020. Traffic flows in February 2021 were shown at 65% of those in February 2020, and May 2021 was at 95%.

2.2.2 These figures are national figures based on 275 ATCs around the UK road network, and that over the course of a year, normal traffic can vary by +/- 20%. A further DfT publication on traffic volumes in 2020 (Road Traffic Estimates: Great Britain 2020) indicates that London experienced the lowest decrease in traffic over the year of -18.1% compared to the highest, Wales, of -23.4%.

2.2.3 The effect of seasonality should also be considered, as the baseline before surveys were conducted in August / September 2020, typically among the highest three months for traffic flows (along with July). The second surveys were then undertaken in February 2021, typically among the lowest three months (along with December and January). Therefore, the traffic flows set out in the following analysis are relatively low during the February 2021 surveys.

2.2.4 For the purposes of this monitoring analysis, the average mid-week (Monday to Friday) daily traffic volumes have been considered for the combined two-way flows for the following periods:

- AM Peak: 07:00 – 10:00
- PM Peak: 16:00 – 19:00
- 12 Hour: 07:00 – 19:00 and
- Whole Day: 00:00 – 00:00.

2.2.5 Speed data, including both mean and 85th percentile speeds are also shown in this report for the same periods as listed above.

2.3 HN Boundary Road ATCs

2.3.1 Cricklewood Broadway

2.3.1.1 The results of the traffic data analysis are shown in Table 2.2, showing the total traffic volume and speeds, compared for each survey period.

2.3.1.2 The February 2021 surveys show increases in all periods, with the largest relative increase occurring in the AM peak period at +31% corresponding to an increase of over 800 vehicles. Mean speed and 85th percentile speed also both increased by approximately 4mph.

2.3.1.3 The latest May 2021 surveys saw decreases across all periods compared to the Sep 2020 baseline, the largest of which occurred in the PM peak of -30% corresponding to a reduction of over 1000 vehicles. Mean speed and 85th percentile speed were also reduced by approximately 1mph.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	2622	3447	+31%	2460	-6%
PM Peak	3427	3853	+12%	2405	-30%
07:00 – 19:00	11922	14771	+24%	9284	-22%
24 Hours	19168	21103	+10%	15689	-18%
Mean Speed	19.5	24.0	+23%	18.6	-5%
85th Percentile	23.9	28.4	+18%	23.0	-4%

Table 2.2: Cricklewood Broadway ATC Results

2.3.2 Chichele Road

2.3.2.1 The results of the traffic data analysis are shown in Table 2.3, showing the total traffic volume and speeds, compared for each survey period.

2.3.2.2 The February and May 2021 surveys show decreases in traffic volumes across all periods with the largest relative decrease in both occurring in the PM peak of 34% corresponding to a loss of over 550 vehicles.

2.3.2.3 Although there were large decreases in traffic volumes there were slight increase in mean and 85th percentile speeds in Feb and May 2021. However, these increases were small, approximately half a mph increase in Feb 2021 and a fifth of a mph in May 2021.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	1732	1194	-31%	1241	-28%
PM Peak	1654	1096	-34%	1090	-34%
07:00 – 19:00	6471	4810	-26%	4560	-30%
24 Hours	9980	7084	-29%	7334	-27%
Mean Speed	20.2	20.8	+3.0%	20.4	+1.0%
85th Percentile	25.8	26.3	+1.9%	25.9	+0.4%

Table 2.3: Chichele Road ATC Results

2.3.3 Anson Road

2.3.3.1 The results of the traffic data analysis are shown in Table 2.4, showing the total traffic volume and speeds, compared for each survey period.

2.3.3.2 The February and May 2021 surveys show decreases in traffic volumes across all periods. The largest relative decrease in both Feb 2021 and May 2021 occurred in the AM peak. In Feb 2021 there was a drop in traffic volumes of 42% corresponding to a loss of over 470 vehicles and in May a drop of 10% corresponding to a reduction of over 110 vehicles. The larger drop in February may be due to the covid lockdown restrictions, which were relaxed by the time the May surveys were taken.

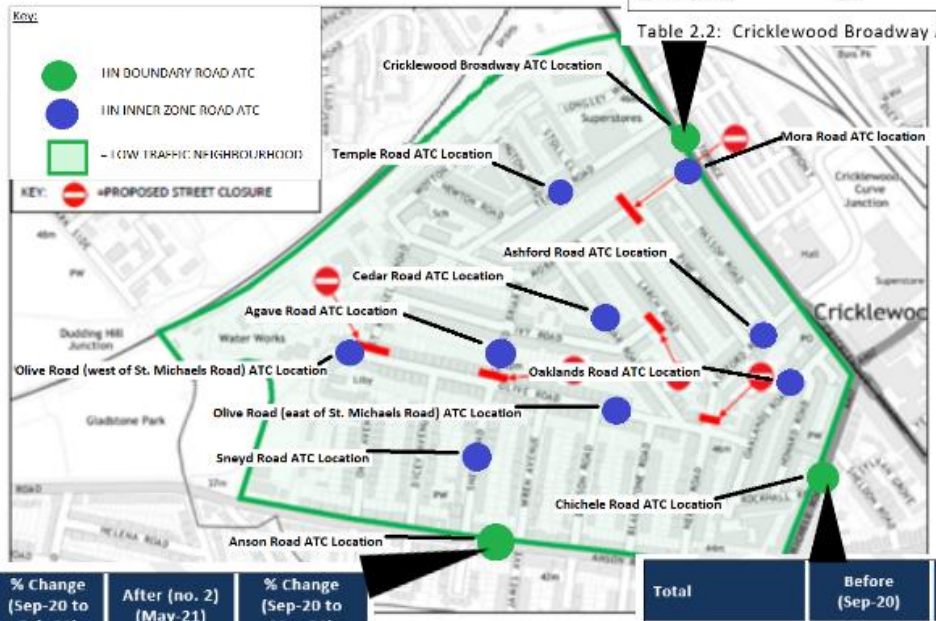
2.3.3.3 Although there were large decreases in traffic volumes there were slight increase in speeds in May 2021. However, these increases were small, approximately 1 mph increase in mean speed and 85th percentile speed.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	1130	658	-42%	1015	-10%
PM Peak	1304	860	-34%	1205	-8%
07:00 – 19:00	4844	3061	-37%	4411	-9%
24 Hours	6145	3847	-37%	5740	-7%
Mean Speed	21.8	20.8	-4.6%	22.7	+4.1%
85th Percentile	25.5	24.7	-3.1%	26.6	+4.3%

Table 2.4: Anson Road ATC Results

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	2622	3447	+31%	2460	-6%
PM Peak	3427	3853	+12%	2405	-30%
07:00 – 19:00	11922	14771	+24%	9284	-22%
24 Hours	19168	21103	+10%	15689	-18%
Mean Speed	19.5	24.0	+23%	18.6	-5%
85th Percentile	23.9	28.4	+18%	23.0	-4%

Table 2.2: Cricklewood Broadway ATC Results



Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	1130	658	-42%	1015	-10%
PM Peak	1304	860	-34%	1205	-8%
07:00 – 19:00	4844	3061	-37%	4411	-9%
24 Hours	6145	3847	-37%	5740	-7%
Mean Speed	21.8	20.8	-4.6%	22.7	+4.1%
85th Percentile	25.5	24.7	-3.1%	26.6	+4.3%

Table 2.4: Anson Road ATC Results

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	1732	1194	-31%	1241	-28%
PM Peak	1654	1096	-34%	1090	-34%
07:00 – 19:00	6471	4810	-26%	4560	-30%
24 Hours	9980	7084	-29%	7334	-27%
Mean Speed	20.2	20.8	+3.0%	20.4	+1.0%
85th Percentile	25.8	26.3	+1.9%	25.9	+0.4%

Table 2.3: Chichele Road ATC Results

Fig 2.2: Boundary Road ATC Results

HN Internal Road ATCs

2.4.1 Temple Road

2.4.1.1 The results of the traffic data analysis are shown in Table 2.5, showing the total traffic volume and speeds, compared for each survey period.

2.4.1.2 Temple Road saw significant increases in traffic volumes for all periods during the February and May 2021 surveys compared to September 2020, with the largest relative increase in volume in the AM peak +42% in Feb 21 and +142% in May 21. These increases correspond to an increase in volume of over 170 vehicles in Feb and over 600 in May.

2.4.1.3 Speeds are shown to dramatically increased with mean speed increasing by over 55% in both Feb and May and 85th percentile speed increasing by approximately 45%.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	423	601	+42%	1025	+142%
PM Peak	638	808	+27%	1378	+116%
07:00 – 19:00	2130	2689	+26%	4860	+128%
24 Hours	2696	3318	+23%	6187	+129%
Mean Speed	10.2	16.0	+56.8%	16.3	+59.8%
85th Percentile	13.8	20.2	+46.4%	20.0	+44.9%

Table 2.5: Temple Road ATC Results

2.4.2 Mora Road

2.4.2.1 The results of the traffic data analysis are shown in Table 2.6, showing the total traffic volume and speeds, compared for each survey period.

2.4.2.2 Mora Road sees decreases in volumes in the February 2021 survey for all periods compared to the September 2020. However, the May 2021 surveys indicate increases from the baseline surveys in September 2020 to the final surveys for all periods, rising 37% for the PM peak. Some of the increase may be attributable to the restrictions not being enforced and

some motorists ignoring them. Decreases in Feb and increases in May are attributable to changes in lockdowns, being enforced in Feb and lifted in May.

2.4.2.3 Mean and 85th percentile speed has increased for all periods and surveys, however as speeds are still relatively low, percentages may make the rise seem more dramatic. The Mean speed in the may survey is still only approximately 12mph and 85th 15mph which are still significantly under the speed limit.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	170	106	-38%	191	+12%
PM Peak	294	248	-16%	403	+37%
07:00 – 19:00	1003	790	-21%	1286	+28%
24 Hours	1341	1038	-23%	1759	+31%
Mean Speed	7.1	11.3	+59.1%	12.3	+73.2%
85th Percentile	8.6	13.8	+60.5%	14.5	+68.6%

Table 2.6: Mora Road ATC Results

2.4.3 Ashford Road

2.4.3.1 The results of the traffic data analysis are shown in Table 2.7, showing the total traffic volume and speeds, compared for each survey period.

2.4.3.2 Ashford Road has seen relatively small reductions in traffic volumes for the February surveys; the largest of which was the AM peak (-25%) and large proportional increases for the May surveys; the largest of which was also the AM peak (+84%). This follows the pattern of lockdown that several of the other surveys follow.

2.4.3.3 The speed data, both mean and 85th percentile have increased for the Feb and May surveys, mean speed increasing more in May +56.2% (approximately 5mph) and 85th more in Feb +61.7% (approximately 8mph). 85th percentile speed is more concerning for this road as its closer to the roads speed limit.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	181	135	-25%	333	+84%
PM Peak	314	313	-<1%	538	+71%
07:00 – 19:00	1050	1021	-3%	1840	+75%
24 Hours	1344	1329	-1%	2381	+77%
Mean Speed	9.6	14.2	+47.9%	15.0	+56.2%
85th Percentile	12.8	20.7	+61.7%	19.7	+53.9%

Table 2.7: Ashford Road ATC Results

2.4.4 Oaklands Road

2.4.4.1 The results of the traffic data analysis are shown in Table 2.8, showing the total traffic volume and speeds, compared for each survey period.

2.4.4.2 Oaklands Road has some small increases and decreases in traffic volume for Feb, -19% in the AM peak. There are increases across all periods in the May surveys however as traffic volumes are low the percentages don't signify drastic changes, +23% 07:00 - 19:00 correlates to an increase of approximately 100 cars.

2.4.4.3 Mean speeds have increased for both surveys, +28.4% in Feb corresponds to approximately 2mph. Although, 85th percentile speed data isn't available for Feb. again although there are large increases for May, over 55% for mean and 85th percentile speed, this only corresponds to a resulting mean sped of 13mph.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	79	64	-19%	89	+13%

PM Peak	130	135	+4%	148	+14%
07:00 – 19:00	449	488	+9%	553	+23%
24 Hours	624	592	-5%	728	+17%
Mean Speed	8.1	10.4	+28.4%	13.1	+61.7%
85th Percentile	10.9	N/A	N/A	17.2	+57.8%

Table 2.8: Oaklands Road ATC Results

2.4.5 Olive Road (west of St. Michaels Road)

2.4.5.1 The results of the traffic data analysis are shown in Table 2.9, showing the total traffic volume and speeds, compared for each survey period.

2.4.5.2 Olive Road (west of St. Michaels Road) follows a similar pattern to some of the other areas with decreases in volume in Feb and increases in May. There are also increases in mean speed and 8th speed for both Feb and May surveys. The largest relative increase and decrease also follows similar pattern to some of the other roads in that it is the AM peak, -58% in Feb and +47% in May (an increase of 64 cars).

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	137	58	-58%	201	+47%
PM Peak	251	159	-37%	310	+24%
07:00 – 19:00	772	399	-48%	948	+23%
24 Hours	966	500	-48%	1187	+23%
Mean Speed	9.5	12.8	+34.7%	15.3	+61.1%
85th Percentile	12.4	15.4	+24.2%	18.6	+50.0%

Table 2.9: Olive Road (west of St. Michaels Road) ATC Results

2.4.6 Olive Road (east of St. Michaels Road)

2.4.6.1 The results of the traffic data analysis are shown in Table 2.10, showing the total traffic volume and speeds, compared for each survey period.

2.4.6.2 Olive Road (east of St. Michaels Road) has large increases in volumes and speeds across all periods. The largest relative increase in volume is in the AM peak +162%, however this is an increase of only 70 cars. There is an increase of approximately 500 cars across the whole day. 85th percentile speed for the May survey period has risen to approximately 24mph.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	44	69	+59%	114	+162%
PM Peak	80	155	+94%	198	+147%
07:00 – 19:00	261	439	+69%	666	+156%
24 Hours	348	559	+61%	854	+145%
Mean Speed	11.8	17.7	+49%	18.2	+54%
85th Percentile	14.8	23.0	+56%	23.7	+60%

Table 2.10: Olive Road (east of St. Michaels Road) ATC Results

2.4.7 Sneyd Road

2.4.7.1 The results of the traffic data analysis are shown in Table 2.11, showing the total traffic volume and speeds, compared for each survey period.

2.4.7.2 Sneyd Road has decreased in traffic volume for most periods in the Feb survey, with an overall -20% decrease from the baseline surveys in the PM peak and a +1% change in the AM peak.

2.4.7.3 The speed data shows an increase for Mean Speed at +19.6% (3mph) for the May surveys and 85th Percentile Speed at +33% to approximately 22mph.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	311	314	+1%	444	+43%
PM Peak	478	382	-20%	544	+14%
07:00 – 19:00	1470	1304	-11%	1980	+35%
24 Hours	1909	1544	-19%	2478	+30%
Mean Speed	15.3	17.5	+14.4%	18.3	+19.6%
85th Percentile	16.8	22.0	+31.0%	22.4	+33.3%

Table 2.11: Sneyd Road ATC Results

2.4.8 Cedar Road

2.4.8.1 The results of the traffic data analysis are shown in Table 2.12, showing the total traffic volume and speeds, compared for each survey period.

2.4.8.2 Cedar Road has seen some of the largest relative increases in traffic volumes of any of the roads. However, some of the absolute volumes are much lower than the boundary roads. The largest increase is +312% in the May surveys PM peak, an increase of over 500 cars.

2.4.8.1 Speed data has also seen increases the maximum of which was the 85th percentile speed in the may surveys +42% (approx. 7mph).

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	169	207	+22%	417	+147%
PM Peak	169	362	+114%	697	+312%
07:00 – 19:00	645	1093	+69%	2264	+251%
24 Hours	799	1292	+62%	2801	+251%
Mean Speed	16.1	17.3	+7%	19.8	+23.0%

85th Percentile	16.9	22.1	+31%	24.0	+42.0%

Table 2.12: Cedar Road ATC Results

2.4.9 Agave Road

2.4.9.1 The results of the traffic data analysis are shown in Table 2.13, showing the total traffic volume and speeds, compared for each survey period.

2.4.9.2 Agave Road has seen a similar pattern to several of the other roads in a decrease in volumes in Feb and increase again in May. The May changes are minor +9% being the maximum. The largest change in Feb was for the whole day -33% which was over 800 cars.

2.4.9.3 Similar to most of the above roads there were increases in mean speeds in both Feb and May the largest being the 85th percentile speed in May +28%, approximately 5mph.

Total	Before (Sep-20)	After (no. 1) (Feb-21)	% Change (Sep-20 to Feb-21)	After (no. 2) (May-21)	% Change (Sep-20 to May 21)
AM Peak	438	317	-28%	442	+1%
PM Peak	519	401	-23%	566	+9%
07:00 – 19:00	1981	1396	-30%	2079	+5%
24 Hours	2457	1656	-33%	2597	+6%
Mean Speed	14.6	16.3	+11%	17.4	+19%
85th Percentile	16.3	20.1	+24%	20.8	+28%

Table 2.13: Agave Road ATC Results

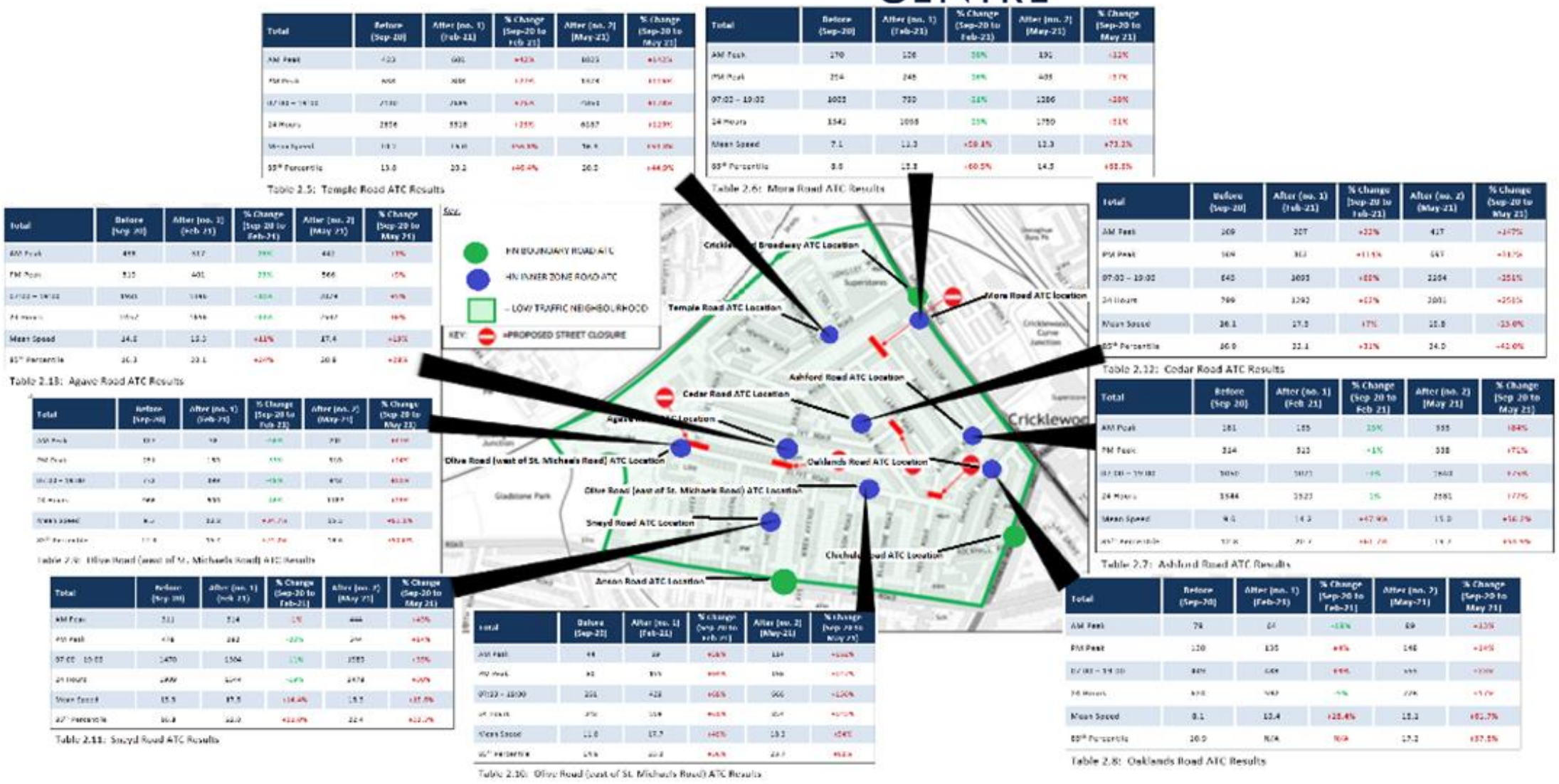


Table 2.5: Temple Road ATC Results

Table 2.6: More Road ATC Results

Table 2.10: Agate Road ATC Results

Table 2.12: Cedar Road ATC Results

Table 2.9: Olive Road (west of St. Michaels Road) ATC Results

Table 2.7: Ashford Road ATC Results

Table 2.11: Sneyd Road ATC Results

Table 2.10: Olive Road (east of St. Michaels Road) ATC Results

Table 2.8: Oaklands Road ATC Results

Fig 2.3: Internal Road ATC Results

3. iBus Data Analysis

3.1 In order to determine whether any changes to traffic movements have been experienced on roads outside the zone following introduction of the Olive Road HN measures, bus journey times have been examined using iBus data from TfL. There are four routes which services operate on along roads around the HN as shown in Figs 3.1 and 3.2 (226 service), Fig 3.3 and 3.4 (245 service), Fig 3.5 and 3.6 (260 service) and Fig 3.7 and 3.8 (316).

3.2 iBus data is collected via GPS technology to track bus movements and is reliant on a GPS fix between the bus stop and the London bus. The data is collected from one bus stop to another including dwell times, for each bus journey and used to indicate average bus journey runtimes.

3.3 The journey times represent the actual journey times taken between the following stops:

Route 226

East bound (Fig 3.1): The Gladstone Centre and Anson Primary School
West bound (Fig 3.2): Anson Primary School and the Gladstone Centre

Route 245

North Bound (Fig 3.3): Cricklewood Lane and Longley Way
South bound (Fig 3.4): Cricklewood Bus Garage and Cricklewood Lane

Route 260

North Bound (Fig 3.5): Melrose Avenue and Sheldon Road
South Bound (Fig 3.6): Sheldon Road and Anson Road

Route 316

North Bound (Fig 3.6): Cricklewood Lane and Longley Way
South Bound (Fig 3.7): Mora Road and Cricklewood Lane

3.4 The iBus data represents the periods for September 2019 and 2020, February 2020 and 2021 and May 2020 and 2021. The

results for each route are set out in Table 3.1 (Route 226), Table 3.2 (Routes 245), Table 3.3 (Route 260) and Table 3.4 (Route 316).

Route 226

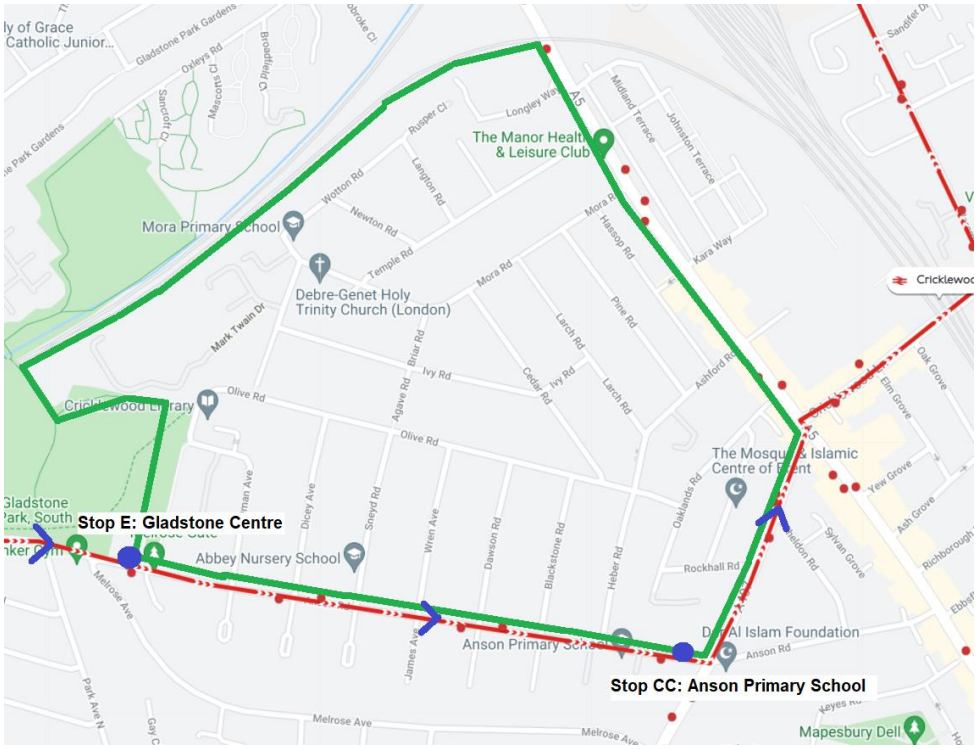


Fig. 3.1: Route 226 east bound

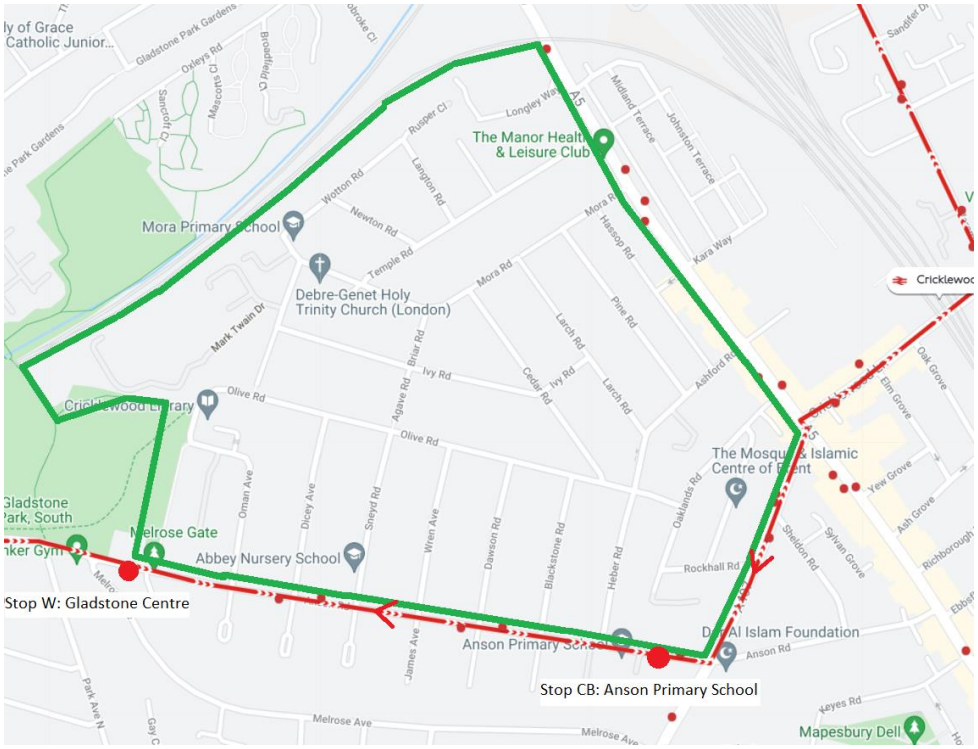


Fig 3.2: Route 226 west bound

Route 245

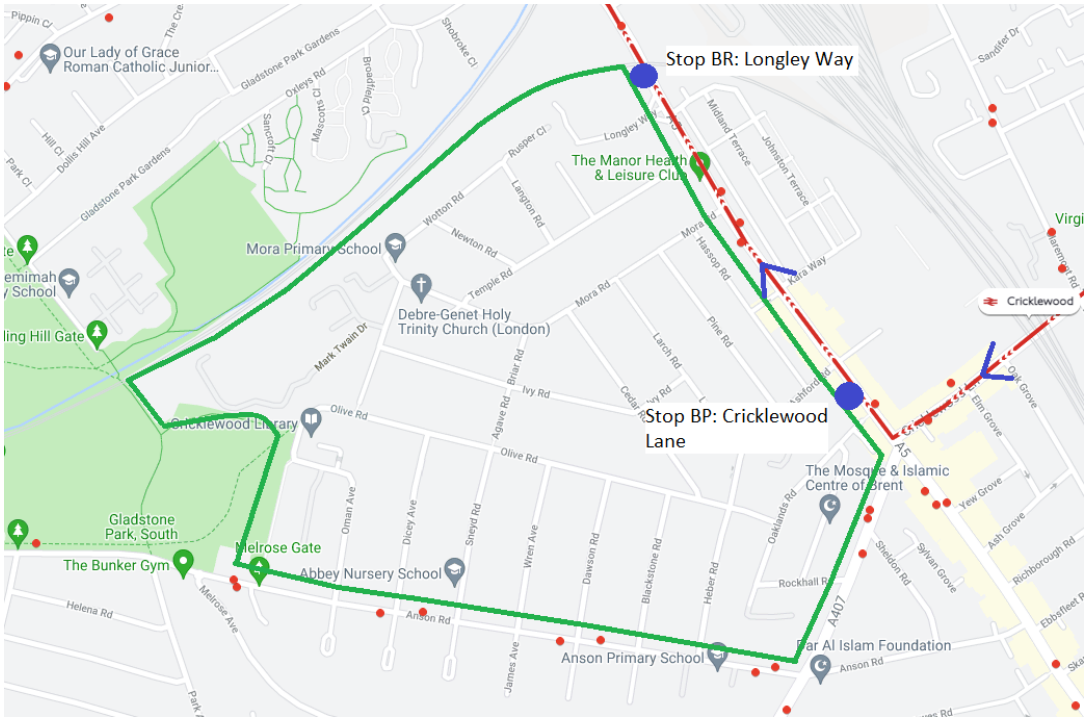


Fig. 3.3: Route 245 North bound

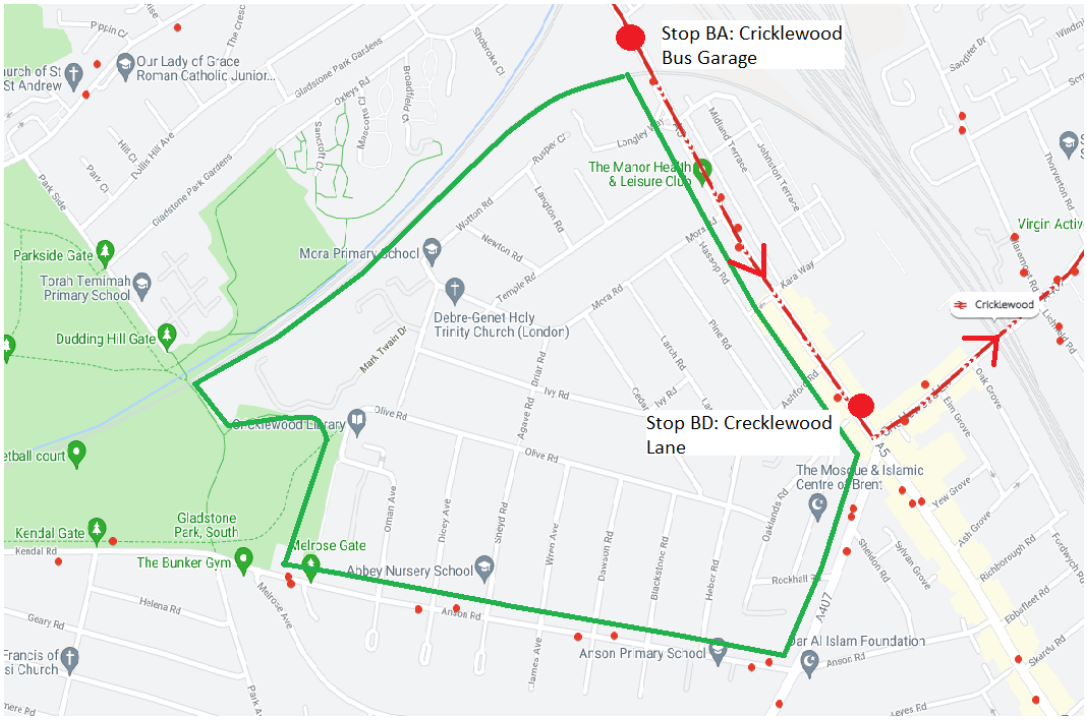


Fig 3.4: Route 245 South Bound

Route 260

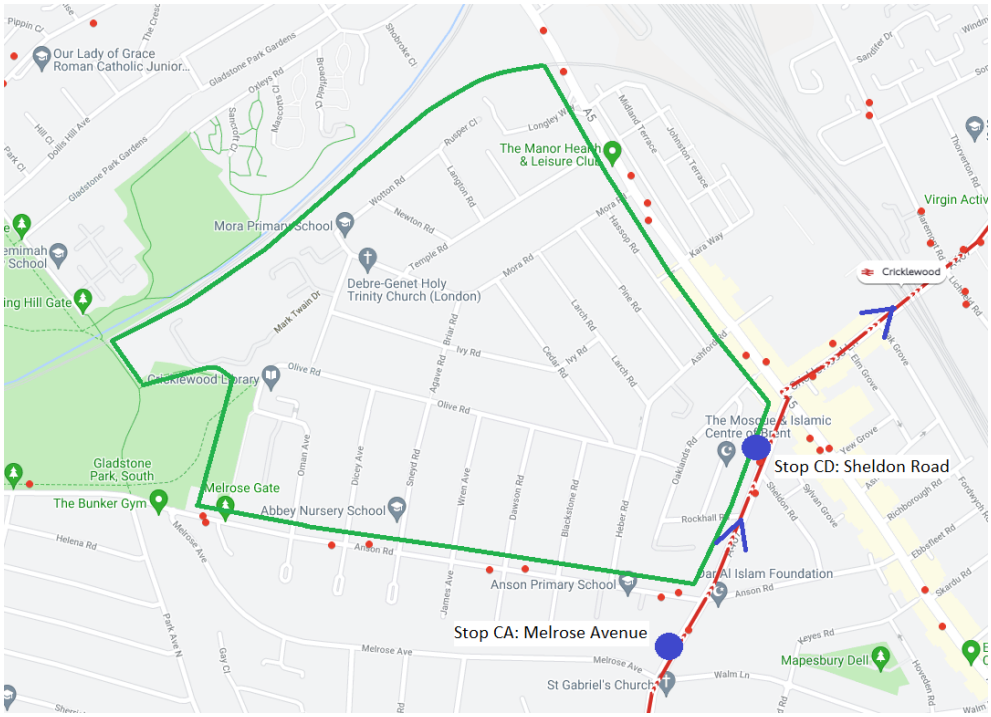


Fig. 3.5: Route 260 North Bound

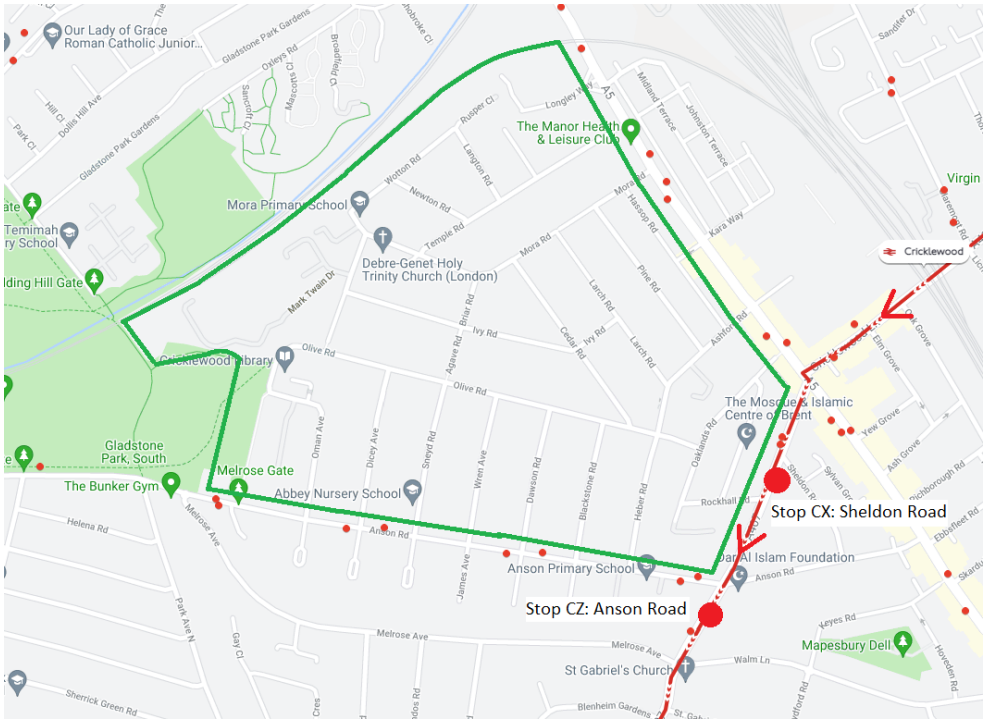


Fig 3.6: Route 260 South Bound

Route 316

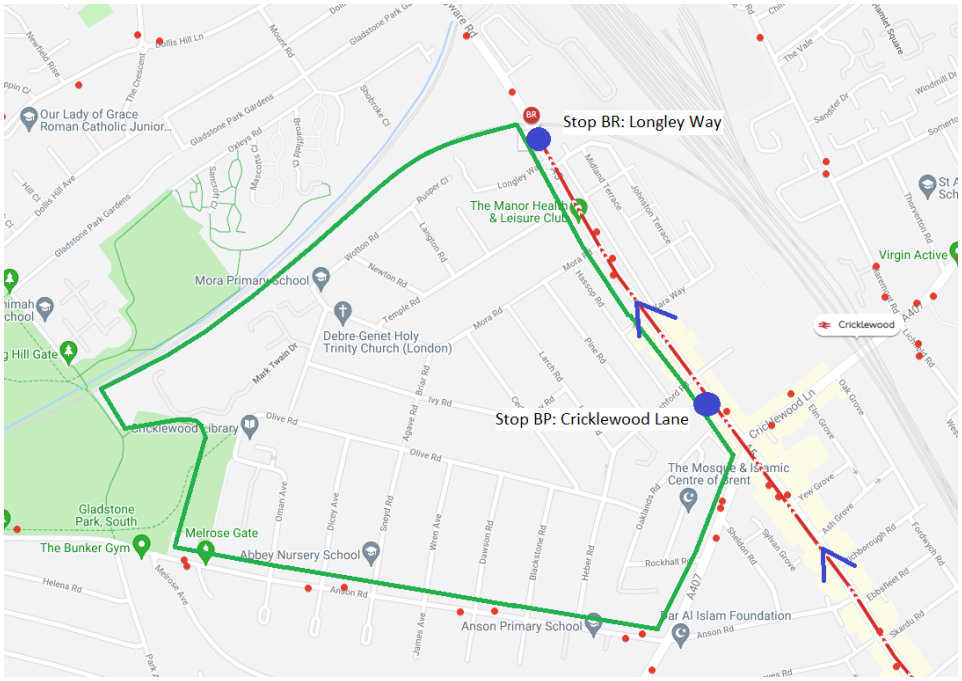


Fig. 3.6: Route 316 North Bound

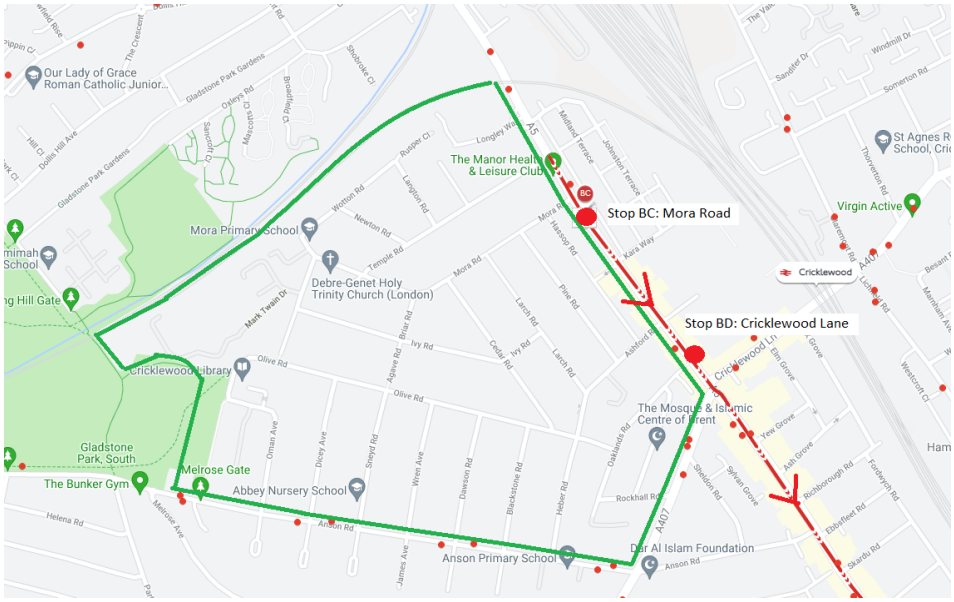


Fig. 3.7: Route 316 South Bound

3.5 Journey times have been taken for periods corresponding to when the sets of traffic data were collected i.e., September 2020, February 2021 and May 2021. To give baseline periods for before the measures were implemented and pre-Covid effects on traffic flows, journey time data has also been shown for September 2019, February 2020 and May 2020. Journey times have been considered comparing similar months (to account for seasonal differences in traffic flows) for the mid-week morning peak period between 7 and 10am. The results are set out in Table 3.1, 3.2, 3.3 and 3.4 (journey times are represented as decimals minutes - i.e., a journey time of 5.8 minutes equates to 5 minutes and 48 seconds).

3.6 Route 226

Route	Direction	Journey Times						% Change Sep 2019 to May 2021
		Sep-19	Feb-20	May-20	Sep-20	Feb-21	May-21	
226	East Bound	3.05	2.97	2.30	2.64	2.95	2.80	-8%
	West Bound	2.80	2.99	2.30	2.57	2.33	2.52	-10%

Table 3.1: Route 226 Total Average Journey Times

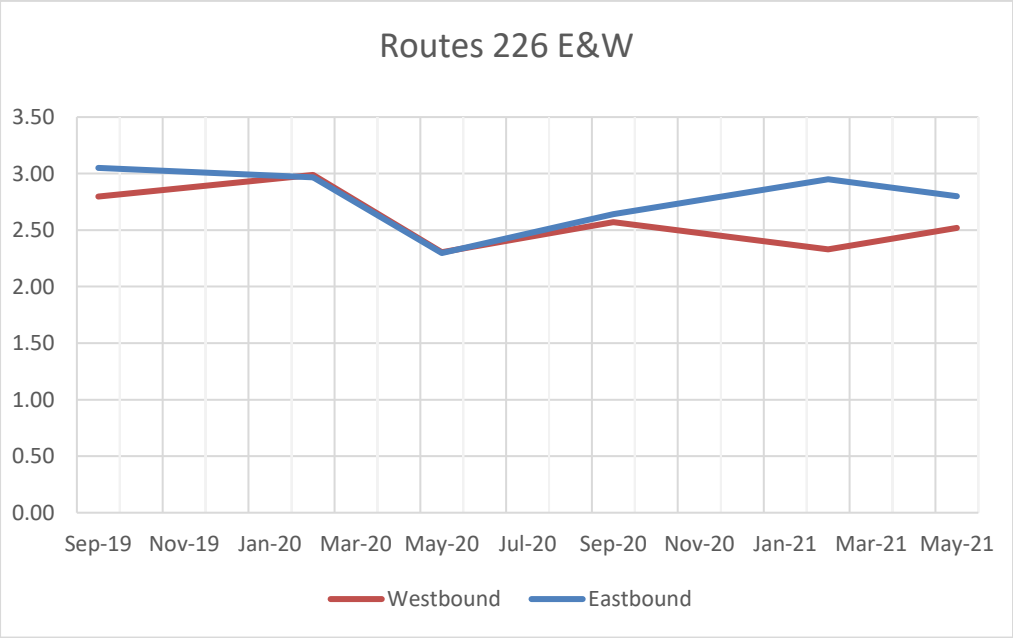


Fig 3.8: Route 226 Total Average Journey Times

3.6.1 Table 3.1 and Fig 3.8 shows the total average journey times for both direction of travel for the 226 service.

3.6.2 For the east bound route (i.e., The Gladstone Centre to Anson Primary School) show fairly consistent journey times between September 2019 and May 2021. Comparing the latest journey times in May 2021 to those in September 2019 show a decrease in journey times of -8% equating to approx. 15 seconds.

3.6.3 For the west bound route (i.e., Anson Primary School to the Gladstone Centre) show fairly consistent journey times between September 2019 and May 2021. Comparing the latest journey times in May 2021 to those in September 2019 shows a negligible decrease in journey times of -0.5% equating to approx. 0.5 seconds.

3.7 Route 245

Route	Direction	Journey Times						% Change Sep 2019 to May 2021
		Sep-19	Feb-20	May-20	Sep-20	Feb-21	May-21	
245	North Bound	1.94	2.57	1.62	2.31	N/A	N/A	NULL
	South Bound	3.02	3.25	2.74	3.95	3.03	3.50	+16%

Table 3.2: Route 245 Total Average Journey Times

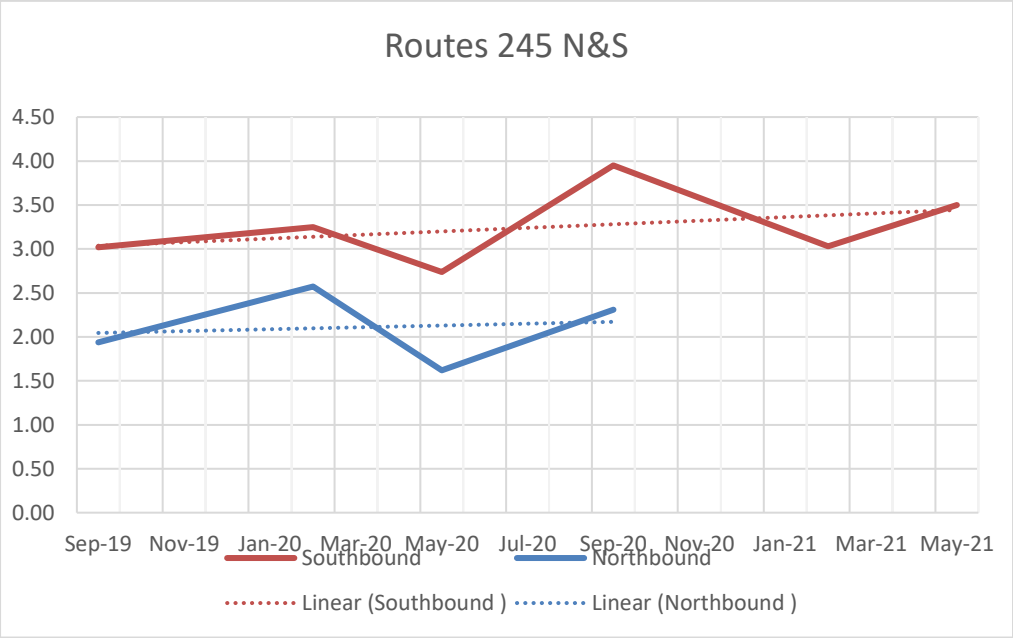


Fig 3.9: Routes 245 Total Average Journey Times

3.7.1 Table 3.2 and Fig 3.9 show the total average journey times for both direction of travel for the 245 service. It should be noted that the iBus data did not contain figures for February and May 2021 in the north bound direction. This is shown as N/A in Table 3.2 and indicated by no line after September 2020 in Fig. 3.9.

3.7.2 For the north route (i.e., Cricklewood Lane to Longley Way) show several small fluctuations between September 2019 and May 2012, particularly in May 2020 where the quickest journey times were seen. This was shortly after the first Covid19 lockdown commenced and therefore lower traffic levels may have had an influence.

3.7.3 As there is no data to compare May 2021 to those in September 2019 the best available alternative is a trendline that shows a very light increase journey times north bound route.

3.7.4 For the south bound route (i.e., Cricklewood Bus Garage and Cricklewood Lane) show fluctuating journey times between September 2019 and May 2021. Comparing the latest journey times in May 2021 to those in September 2019 shows an increase in journey times of 16% for the south bound route equating to approx. 29 seconds.

3.8 Route 260

Route	Direction	Journey Times						% Change Sep 2019 to May 2021
		Sep-19	Feb-20	May-20	Sep-20	Feb-21	May-21	
260	North bound	1.83	1.67	1.09	1.63	1.38	1.51	-18%
	South bound	1.57	1.44	0.81	1.15	0.65	1.07	-32%

Table 3.3: Route 260 Total Average Journey Times

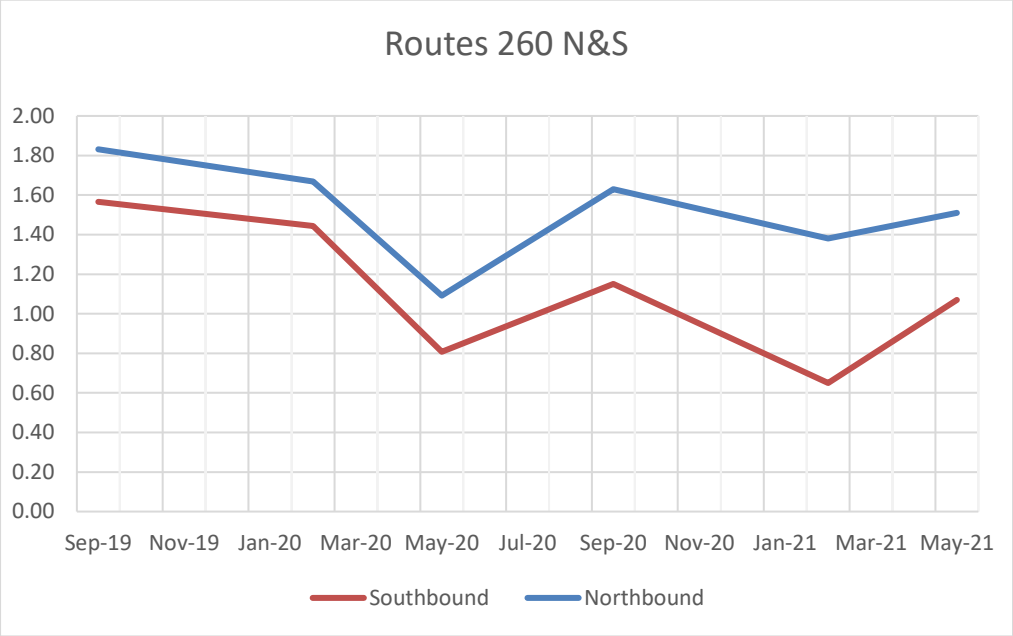


Fig 3.10: Route 260 Total Average Journey Time

3.8.1 Table 3.3 and Fig 3.10 show the total average journey times for both direction of travel for the 260 service.

3.8.2 For the north bound route (i.e., Melrose Avenue to Sheldon Road) show several fluctuations between September 2019 and May 2012, particularly in May 2020 where the fastest journey times were seen. This is before traffic surveys were undertaken for the monitoring of the Olive Road HN and therefore the cause for this is unknown although it was shortly after the first Covid19 lockdown commenced and therefore lower traffic levels may have had an influence.

3.8.3 Comparing the latest journey times in May 2021 to those in September 2019 shows a decrease in journey times of -18% for the north bound route equating to approx. 19 seconds.

3.8.4 For the south bound route (i.e., Sheldon Road to Anson Road) show similar fluctuations in journey times to the north bound route between September 2019 and May 2021. The primary difference between the routes being in Feb 2021 when there was a significant drop in journey times in the south bound route. Comparing the latest journey times in May 2021 to those in September 2019 shows a large decrease in journey times of -32% equating to approx. 30 seconds.

3.9 Route 316

Route	Direction	Journey Times						% Change Sep 2019 to May 2021
		Sep-19	Feb-20	May-20	Sep-20	Feb-21	May-21	
316	North Bound	1.7	2.2	1.2	2.03	1.6	1.87	+10%
	South Bound	1.5	1.5	1.6	2.07	1.65	1.76	+15%

Table 3.4: Route 316 Total Average Journey Times

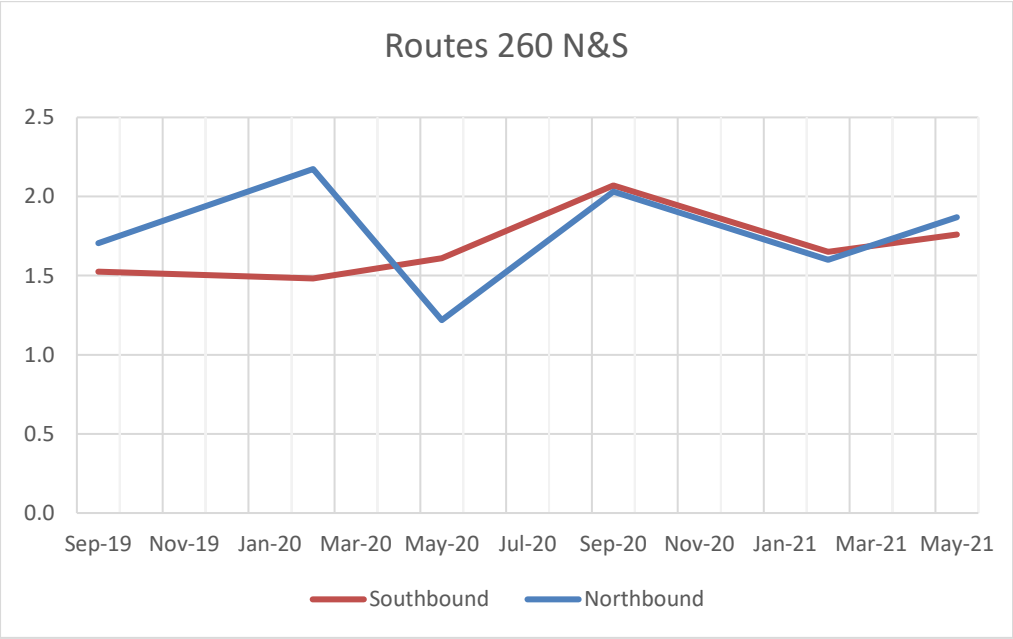


Fig 3.11: Route 316 Total Average Journey Time

3.9.1 Table 3.4 and Fig 3.11 show the total average journey times for both direction of travel for the 316 service.

3.9.2 For the north bound route (i.e., Cricklewood Lane and Longley Way) show several large fluctuations between September 2019 and May 2012, particularly in May 2020 where the fastest journey times were seen. This is before traffic surveys were undertaken for the monitoring of the Olive Road HN and therefore the cause for this is unknown although it was shortly after the first Covid19 lockdown commenced and therefore lower traffic levels may have had an influence.

3.9.3 Comparing the latest journey times in May 2021 to those in September 2019 shows an increase in journey times of +10% for the north bound route equating to approx. 10 seconds.

3.9.4 For the south bound route (i.e., Mora Road and Cricklewood Lane) the journey times are far more consistent between September 2019 and May 2021. The only major increase is in Sep 2020 and reflects the increase of the northbound route. Comparing the latest journey times in May 2021 to those in September 2019 shows an increase in journey times of +15% equating to approx. 16 seconds.

4. COLLISION DATA ANALYSIS

4.1 Collision data has been gathered from TfL's online Road Danger Reduction Dashboard for the latest available three-year period on that site (01/01/2017 to 31/03/2021) for the HN boundary and internal roads for before and after implementation.

4.2 In the 'before' implementation period, as shown on Table 4.1 below, a total of 69 collisions were recorded resulting in 80 personal injuries. On the boundary roads 55 collisions were recorded resulting in 64 personal injuries being sustained. The HN internal roads show 14 collisions resulting in 16 personal injuries being sustained.

4.3 The majority of the collisions, 37 (54%), occurred on Cricklewood Broadway, 33 of which were slight, 4 serious of which 1 was fatal. These resulted in 40 personal injuries being sustained.

4.4 Table 4.1 details the collisions recorded on each road and the monthly collision rates which shows the total number of collisions divided by the 'before' implementation period which covers a period of 44 months. For example, records show Chichele Road experienced 10 collisions in the 44-month period therefore the monthly collision rate is 0.227 (10/44).

Pre-Implementation	Killed and Serious Injuries	Slight	Total	Personal Injuries	Collision Rate (collisions / month)
HN Boundary Roads (ATCs)					
Cricklewood Broadway	4 (1Fatal)	33	37	40	0.841
Chichele Road	1	9	10	12	0.227
Anson Road	0	5	5	8	0.114
Edgeware Road	1	2	3	4	0.068
TOTAL	6	49	55	64	1.250
HN Internal Roads					
Olive Road	0	1	1	1	0.023
Heber Road	0	1	1	1	0.023

Blackstone Road	0	0	0	0	0
Dawson Road	0	0	0	0	0
Wren Avenue	0	0	0	0	0
Sneyd Road	0	0	0	0	0
Dicey Avenue	0	0	0	0	0
Oman Avenue	0	0	0	0	0
Oaklands Road	0	0	0	0	0
Rockhall Road	0	0	0	0	0
Howard Road	0	0	0	0	0
Oaklands Passage	0	0	0	0	0
Ashford Road	0	1	1	2	0.023
Hassop Road	0	1	1	1	0.023
Pine Road	0	0	0	0	0
Larch Road	1	0	1	1	0.023
Cedar Road	0	3	3	3	0.068
Ivy Road	0	0	0	0	0
Agave Road	0	0	0	0	0
Briar Road	0	0	0	0	0
St Michael's Road	0	0	0	0	0
Mora Road	0	4	4	5	0.091
Temple Road	0	1	1	1	0.023
Wotton Road	0	1	1	1	0.023
Newton Road	0	0	0	0	0
Langton Road	0	0	0	0	0
Stoll Close	0	0	0	0	0
Longley Way	0	0	0	0	0
TOTAL	1	13	14	16	0.320

Table 4.1: Collision & Casualty Data – Before HN Implementation

4.5 In the 'after' implementation period, as shown on Table 4.2 below, a total of 21 collisions were recorded resulting in 21 personal injuries. On the HN boundary roads 19 collisions were recorded resulting in 19 personal injuries being sustained. The HN internal roads show 2 collisions resulting in 2 personal injuries being sustained. All but three of the collisions in the 'after' period were slight injuries, those serious only occurring on Cricklewood Broadway.

4.6 Table 4.2 details the collisions recorded on each road and the monthly collision rates, the 'after' period comprising seven months.

4.7 The total 'after' collision rates for all the boundary roads is 2.715 collisions / month compared to 1.250 in the 'before' period, which equates to an increase of approximately 1.47 a month.

4.8 For internal roads the total monthly collision rates in the 'after' period is 0.286 compared to 0.320 in the 'before' period. This equates to a decrease of approximately 0.03 collisions a month.

4.9 TfL have indicated that they have provisional data up to the end of July 2021 although this is not currently available on the online dashboard.

After Implementation	Serious	Slight	Total	Personal Injuries	Collision Rate (collisions / month)
HN Boundary Roads (ATCs)					
Cricklewood Broadway	3	13	16	16	2.286
Chichele Road	0	3	3	3	0.429
Anson Road	0	0	0	0	0
Edgeware Road	0	0	0	0	0
TOTAL	3	16	19	19	2.715
HN Internal Roads					
Olive Road	0	0	0	0	0
Heber Road	0	0	0	0	0

Blackstone Road	0	0	0	0	0
Dawson Road	0	1	1	1	0.143
Wren Avenue	0	0	0	0	0
Sneyd Road	0	0	0	0	0
Dicey Avenue	0	0	0	0	0
Oman Avenue	0	1	1	1	0.143
Oaklands Road	0	0	0	0	0
Rockhall Road	0	0	0	0	0
Howard Road	0	0	0	0	0
Oaklands Passage	0	0	0	0	0
Ashford Road	0	0	0	0	0
Hassop Road	0	0	0	0	0
Pine Road	0	0	0	0	0
Larch Road	0	0	0	0	0
Cedar Road	0	0	0	0	0
Ivy Road	0	0	0	0	0
Agave Road	0	0	0	0	0
Briar Road	0	0	0	0	0
St Michael's Road	0	0	0	0	0
Mora Road	0	0	0	0	0
Temple Road	0	0	0	0	0
Wotton Road	0	0	0	0	0
Newton Road	0	0	0	0	0
Langton Road	0	0	0	0	0
Stoll Close	0	0	0	0	0
Longley Way	0	0	0	0	0
TOTAL	0	2	2	2	0.286

Table 4.2: Collision & Casualty Data – After HN Implementation

5. Air Quality Monitoring

5.1 As part of the monitoring of the Olive Road HN air quality tests were undertaken at four locations using diffusion tubes to measure nitrogen dioxide (NO2). These sites are on Agave Road, Ashford Road, Anson Road and Mora Road.

5.2 The Department for Environment Food and Rural Affairs (DEFRA) state that diffusion tubes are a useful low-cost method for indicative monitoring of ambient NO2 concentrations, but they are affected by several sources of interference, such as weather changes and fluctuations in background pollution, which can cause substantial under or overestimation (often referred to as "bias").

5.3 Any such bias is a problem in any situation where diffusion tube results are to be compared with air quality objectives. As a result, local authorities using NO2 diffusion tubes are required to quantify the bias of their diffusion tube measurements and apply an appropriate bias adjustment factor to the annual mean as necessary.

5.4 Once the results have been subject to this process that they can then be compared to UK national air quality objectives of the annual mean concentration of NO2 not exceeding 40 µg m-3, and the 1-hour mean to not exceeding 200 µg m-3.

5.5 The data supplied for the review of the HN monitoring, which covers the period between November 2020 and July 2021, indicates that the diffusion tube results have not been adjusted at this stage. Nonetheless, while the results might not be comparable with air quality objectives, they may give an indication of local trends over the course of the monitoring period.

5.6 Levels of NO2 before the HN was introduced are shown on the LB Brent's website regarding the Olive Road scheme and are included in Table 5.1. These 'before' figures are taken from the London Atmospheric Emissions Inventory 2016 which provides modelled annual mean concentrations for NO2. 2016 is the most recent year for which this data is available.

5.7 The results of the air quality testing at the four sites mentioned above are shown in Table 5.1 below. To repeat the statement

above, it must be stressed that these are the 'raw' unadjusted figures.

5.8 The results indicate that while levels have fluctuated over the nine months there appears to have been an overall reduction in the levels of NO2 recorded at each of the locations.

	Monthly Nitrogen Dioxide Diffusion Tube results RAW DATA (µg/m3)									
Air Pollution Test Location	**'before' (2016)**	**Nov 20**	**Dec 20**	**Jan 21**	**Feb 21**	**Mar 21**	**Apr 21**	**May 21**	**June 21**	**July 21**
Agave Road	36.49	38.63	tube missing	36.29	32.43	31.55	25.39	20.35	20.62	25.47
Ashford Road	36.31	40.26	33.76	36.86	32.11	30.65	tube missing	20.33	19.88	21.56
Anson road	37.58	39.71	34.26	39.45	33.85	31.71	28.59	22.24	25.25	26.08
Mora Rd	40.59	41.40	34.13	31.50	33.93	tube missing	23.07	19.64	18.63	tube missing

Table 5.1: NO2 Monitoring Results (Unadjusted)

6. Consultation Summary

6.1 An online consultation exercise was undertaken for residents both within and outside of the zone to submit their comments about the scheme and to indicate whether they supported the restrictions or not. In total (i.e. from residents inside and outside the HN) 985 responses were received, of which 198 (20.1%) indicated support for the scheme and 787 (79.9%) did not support the scheme.

6.2 The consultation material was delivered to the 2,845 properties within the HN and 552 (19%) responses were received. Of these 123 (22%) supported the proposal and 429 (78%) did not. Responses from roads where modal filters were installed (Agave Road, Ashford Road, Ivy Road, Mora Road and St Michaels Road) a total of 143 responses were received. Of these 36 (25%) supported the scheme and 107 (75%) did not. Tables 6.1, 6.2 and 6.3 below shows these response rates on a 'road by road' basis.

6.3 Numerous comments were received and the most common were those regarding concerns about increased congestion and poorer air pollution (268, 28.9%), increased congestion (229, 24.7%) and those listed as 'Agreed' (185, 20.0%).

6.4 Those regarding increased congestion and pollution were typically either about displacement of traffic onto other local roads or about traffic being funnelled onto main roads which creates congestion, bottlenecks and longer time spent travelling which increases pollution in those areas. There are also several suggestions that it moves the pollution onto main roads rather than getting rid of it.

6.5 Many of the comments regarding just congestion were about the increase in journey time and difficulty in being able to travel as well as the increased congestion with many residents suggesting there were no issues with congestion on side roads previously.

6.6 Several comments also pointed out the issues with access for emergency vehicles and that response times had increased, and it was now more difficult to get to these areas in an emergency.

6.7 Comments listed as 'agreed' were typically about the increased ability to cycle and walk through the area as well as feeling much safer. Several residents also noted the improvement in air

quality and their approval given the location of the school in the area.

Road Name	Yes	No	% Yes	% No
Abbotsford Court	0	1	0	100
Acland Road	0	3	0	100
Agave Road	2	0	100	0
Alder Grove	0	1	0	100
All Souls Avenue	1	0	100	0
Anson Road	7	27	21	79
Ashford Road	11	16	41	59
Aylesbury Street	0	1	0	100
Balmoral Road	0	2	0	100
Balnacraig Avenue	0	1	0	100
Bassingham Road	0	1	0	100
Belsize Road	1	0	100	0
Besant Road	0	1	0	100
Birchen Grove	0	1	0	100
Blackstone Road	1	15	6	94
Blair Avenue	0	1	0	100
Blenheim Gardens	0	1	0	100
Bouverie Road	1	0	100	0
Braemar Avenue	0	1	0	100
Bristol Walk	1	0	100	0
Broadhurst Gardens	0	1	0	100
Brook Green	0	1	0	100
Burnley Road	0	2	0	100
Buxton Road	0	1	0	100
Caddington Road	1	1	50	50
Callcott Road	1	0	100	0
Campion Terrace	2	0	100	0
Cedar Road	1	43	2	98
Chambers Lane	0	3	0	100
Chandos Road	4	8	33	67
Chaplin Road	0	1	0	100
Chapter Road	1	3	25	75
Chatsworth Road	0	6	0	100
Chichele Road	2	0	100	0

Road Name	Yes	No	% Yes	% No
Jeymer Avenue	0	2	0	100
Kendal Road	0	1	0	100
Kenneth Crescent	0	7	0	100
Keyes Road	0	1	0	100
Kilmory Fold	0	1	0	100
Kings Road	0	3	0	100
Kingswood Avenue	0	1	0	100
Lampeter Square	0	1	0	100
Lancaster Road	0	2	0	100
Langton Road	6	16	27	73
Larch Road	7	20	26	74
Layfield Crescent	0	1	0	100
Lechmere Road	2	0	100	0
Leeland Way	0	1	0	100
Lennox Gardens	0	4	0	100
Linacre Road	0	2	0	100
Lydford Road	0	2	0	100
Madoc Close	1	0	100	0
Mapesbury Road	0	1	0	100
Mark Twain Drive	0	11	0	100
Marnham Avenue	0	1	0	100
Melrose Avenue	4	23	15	85
Meredith Avenue	0	2	0	100
Middleton Avenue	0	1	0	100
Midland Terrace	0	3	0	100
Minster Road	1	0	100	0
Minton Mews	0	1	0	100
Mora Road	12	25	32	68
Neasden Lane North	0	1	0	100
Newton Road	1	4	25	75
Norbury Crescent	0	1	0	100
Northview Crescent	0	2	0	100
Oaklands Road	4	4	50	50
Olive Road	13	59	18	82

Christchurch Avenue	0	1	0	100
Churchill Road	1	3	25	75
Clorane Gardens	0	1	0	100
Coles Green Road	0	2	0	100
Conifer Way	1	0	100	0
Cooper Road	1	0	100	0
Coren Close	0	1	0	100
Cornwall Gardens	1	0	100	0
Cranhurst Road	5	8	38	62
Cricklewood Lane	0	2	0	100
Cullingworth Road	0	3	0	100
Dartmouth Road	1	8	11	89
Dawpool Road	0	1	0	100
Dawson Road	2	12	14	86
Deacon Road	1	0	100	0
Dean Road	0	1	0	100
Dewsbury Road	1	6	14	86
Dicey Avenue	3	8	27	73
Dollis Hill Avenue	0	3	0	100
Dollis Hill Lane	0	7	0	100
Dunster Gardens	0	1	0	100
Durham Road	1	0	100	0
Edgware Road	0	2	0	100
Ellesmere Road	3	10	23	77
Elvin Gardens	1	0	100	0
Exeter Road	0	1	0	100
Feeney Close	0	1	0	100
Fleetwood Road	1	14	7	93
Forbes Close	0	1	0	100
Fordwych Road	1	1	50	50
Fortunegate Road	0	1	0	100
Freedom Road	0	1	0	100
Gardiner Avenue	0	2	0	100
Gay Close	1	2	33	67
Geary Road	0	12	0	100
Gladstone Park Gardens	1	4	20	80
Gloucester Close	0	1	0	100
Gondar Gardens	3	0	100	0

Oman Avenue	3	1	75	25
Osborne Road	1	0	100	0
Oxgate Gardens	0	2	0	100
Park Avenue	0	2	0	100
Park Avenue North	0	3	0	100
Park Close	0	2	0	100
Park View Road	0	1	0	100
Parkfield Road	0	1	0	100
Pine Road	2	37	5	95
Pinemartin Close	0	1	0	100
Plymptom Road	0	1	0	100
Prout Grove	0	2	0	100
Riffel Road	0	10	0	100
Rockhall Road	1	1	50	50
Rundell Crescent	0	1	0	1100
Rutland Park	1	3	25	75
Sandringham Road	0	1	0	100
Shepherds Walk	0	1	0	100
Sherrick Green Road	0	3	0	100
Sherwood Park Road	1	0	100	0
Shoot Up Hill	1	0	100	0
Shorts Croft	0	1	0	100
Sixth Avenue	0	1	0	100
Sneyd Road	7	9	44	56
Southview Avenue	0	1	0	100
St Andrews Road	0	1	0	100
St Gabriels Road	0	1	0	100
St Michaels Road	1	8	11	89
St Pauls Avenue	0	3	0	100
St Johns Avenue	0	1	0	100
Stag Lane	1	0	100	0
Stanley Gardens	0	3	0	100
Station Terrace	0	1	0	100
Staverton Road	0	1	0	100
Sterne Street	1	0	100	0
Stoll Close	0	1	0	100
Summerfield Avenue	1	0	100	0
Tadworth Road	0	1	0	100

Greenfield Gardens	0	2	0	100	Tanfield Avenue	0	1	0	100
Greenhill Road	0	1	0	100	Teignmouth Road	1	2	33	67
Grosvenor Gardens	0	1	0	100	Temple Road	10	12	45	55
Hamilton Road	0	3	0	100	The Vale	1	0	100	0
Hanover Road	1	0	100	0	Torbay Road	1	0	100	0
Harlesden Road	1	0	100	0	Tracey Avenue	0	14	0	100
Harp Island Close	0	3	0	100	Villiers Road	0	4	0	100
Hassop Road	0	1	0	100	Wakemans Hill Avenue	0	1	0	100
Hawthorn Way	0	1	0	100	Walm Lane	0	4	0	100
Heber Road	15	7	68	32	Walton Close	0	2	0	100
Helena Road	0	1	0	100	Wapping High Street	1	0	100	0
Hendon Way	0	1	0	100	Waterford Way	0	1	0	100
Henson Avenue	0	5	0	100	Whitmore Gardens	1	0	100	0
High Road Willesden	1	1	50	50	Willesden Lane	0	1	0	100
Hillcrest Gardens	0	1	0	100	Windsor Road	1	0	100	0
Hilltop Avenue	1	0	100	0	Winston Avenue	1	0	100	0
Homestead Park	0	3	0	100	Woodbridge Close	0	1	0	100
Horton Avenue	0	1	0	100	Wotton Road	0	20	0	100
Hoveden Road	0	1	0	100	Wren Avenue	1	12	8	92
Howard Road	3	14	18	82	Wrentham Avenue	0	2	0	100
Iverson Road	1	0	100	0	Yewfield Road	0	1	0	100
Ivy Road	10	58	15	85	No Road Name	9	29	24	76
James Avenue	0	1	0	100		198	787	20%	80%

Table 6.1: Consultation Responses by Road – ALL RESPONSES

Road Name	Yes	No	% Yes	% No
Agave Road	2	0	100	0
Anson Road	7	27	21	79
Ashford Road	11	16	41	59
Blackstone Road	1	15	6	94
Cedar Road	1	43	2	98
Chichele Road	2	0	100	0
Dicey Avenue	3	8	27	73
Hassop Road	0	1	0	100
Heber Road	15	7	68	32

Howard Road	3	14	18	82
Ivy Road	10	58	15	85
Langton Road	6	16	27	73
Larch Road	7	20	26	74
Mark Twain Drive	0	11	0	100
Mora Road	12	25	32	68
Newton Road	1	4	25	75
Oaklands Road	4	4	50	50
Olive Road	13	59	18	82
Oman Avenue	3	1	75	25
Pine Road	2	37	5	95
Rockhall Road	1	1	50	50
Sneyd Road	7	9	44	56
St Michaels Road	1	8	11	89
Stoll Close	0	1	0	100
Temple Road	10	12	45	55
Wotton Road	0	20	0	100
Wren Avenue	1	12	8	92
TOTAL	123	429	22%	78%

Table 6.2: Consultation Responses by Road – ROADS WITHIN HN

Road Name	Yes	No	% Yes	% No
Agave Road	2	0	100	0
Ashford Road	11	16	41	59
Ivy Road	10	58	15	85
Mora Road	12	25	32	68
St Michaels Road	1	8	11	89
TOTAL	36	107	25%	75%

Table 6.3: Consultation Responses by Road – ROADS WITH MODAL FILTERS

7. EQUALITIES MONITORING

7.1 Respondents to the online consultation were invited to answer a series of equalities questions to indicate whether the responses were typically representative of the local community.

7.2 In relation to the Stonebridge & Harlesden areas the responses were broadly representative of the local community. The results are included in Appendix A.

8 SUMMARY AND CONCLUSION

8.1 For all the boundary roads, the traffic surveys indicate reductions in traffic volumes during May 2021 compared with baseline figures. Speeds on the other hand had increased for Chichele and Anson Road and decreased for Cricklewood road although the changes were minor, the maximum change being approximately 1mph. following a different trend to most of the roads in the Olive Road area during the first monitoring exercise (February 2021) Cricklewood road traffic volumes increased across all time periods, although Chichele and Anson decreased by larger amounts than compared to the May survey following the common trend of lower traffic volumes in Feb due to the lockdown.

8.2 However, the iBus bus journey time data indicates that, journey times for some of the routes (226 and 260) have improved. These routes both follow either Anson Road, Chichele Road, or both. The 226's times improved by a two-way average of -9% and the 260's by a two-way average of -25%.

8.3 The 316 and 245 (southbound, although northbound trending upwards as well) services showed increased journey times. These routes both run along Cricklewood Broadway which contrary to the May-21 traffic data would either indicate a reduction in mean speed or increase in traffic volume. Journey time southbound (whose data we have for both0 increased by +16% for the 245 and +15% for the 316.

8.4 Collision data on boundary roads shows 'collisions / month' increased by approximately 1.5, comparing the period before the scheme went live (44 months) to the period after implementation (7 months) for which data is available.

8.5 HN Internal roads showed that flows increased to varying extents for all roads Sep-20 to May-21. Although some of these changes were larger than others all saw increases in daily traffic flows above 5% with Cedar Road, Olive Road (east of St. Michaels Road) and Temple Road all seeing daily increases above 100%. However, just as some of the roads saw decreases in Feb compared with Sep, it is likely the large increase in May is at least in part due the almost full lifting of lockdown restrictions which were still at least part in place in Sep-20 and very much in full lockdown in Feb-21.

8.6 Collision data on those internal roads indicates a small decrease in the collisions/month figure of 0.286 over the 7-month period compared to 0.32 collisions/month in the 'before' period (44 months) a decrease of 0.03 collisions/month. This relates to two collisions recorded during the 7 month period and is therefore difficult to identify trends.

8.7 The results of air quality testing, albeit un-adjusted, show improvements across all four test sites since introduction of the restrictions.

8.8 The vast majority of residents (80.1%) have indicated that they do not support the restrictions because of concerns about additional congestion, longer journeys, inconvenience, impact on air pollution, access for emergency vehicles and some mention on the lack of consultation.

8.9 The lack of enforcement of the restrictions may have led to general flouting of the modal filters and therefore the objectives of providing generally lower traffic levels were not realised and consequently those who may have cycled or walked more were not encouraged to do so.

8.10 Similar types of schemes have been introduced across many parts of London, particularly to provide safer conditions for increased levels of cycling and walking during recovery from the Covid19 pandemic. It is recognised that a significant proportion of such schemes in London have not been supported by residents, or other roads users, but some schemes have been successful. It is recommended that consideration is given to undertaking further engagement with residents on a scheme incorporating enforcement (ideally using CCTV camera enforcement) so that the anticipated lower traffic volumes can be realised, and more active travel options adopted by residents.

APPENDIX A: EQUALITIES MONITORING RESPONSES

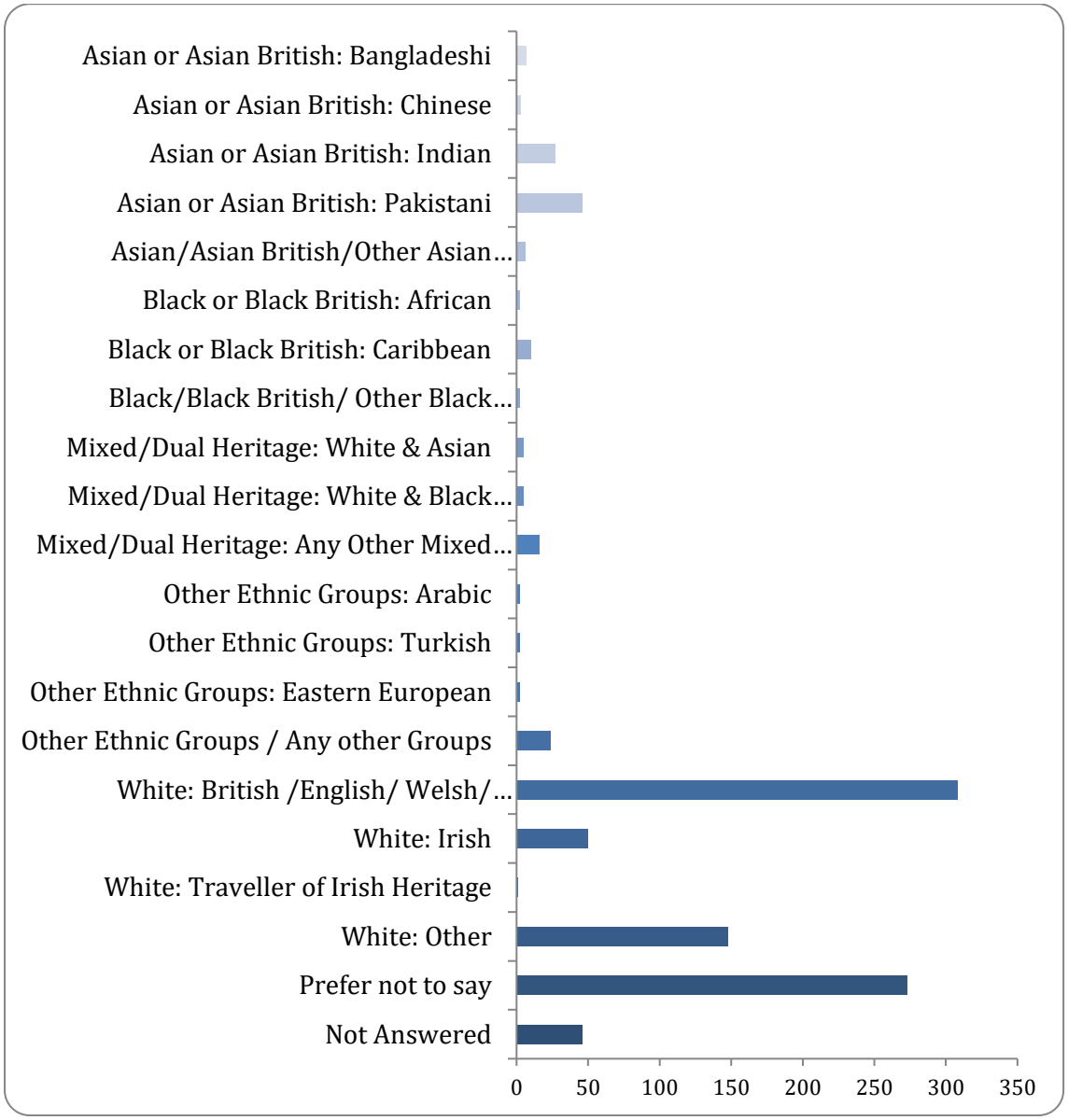
Olive Road Area Healthy Neighbourhood

Responses to this survey: **985**

7: Please state your ethnicity:

Ethnicity

There were 939 responses to this part of the question.

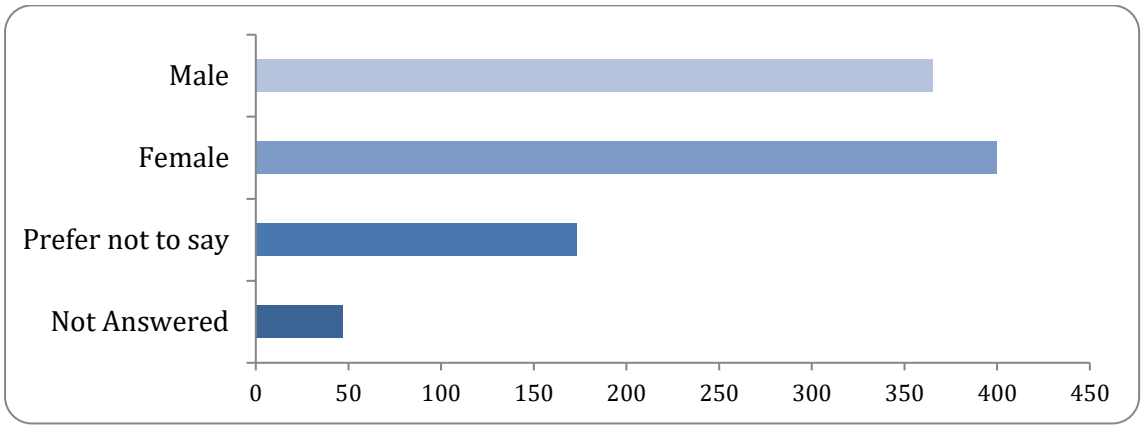


Option	Total	Percent
Asian or Asian British: Bangladeshi	7	0.71%
Asian or Asian British: Chinese	3	0.30%
Asian or Asian British: Indian	27	2.74%
Asian or Asian British: Pakistani	46	4.67%
Asian/Asian British/Other Asian Background	6	0.61%
Black or Black British: African	2	0.20%
Black or Black British: Caribbean	10	1.02%
Black or Black British: Somali	0	0.00%
Black/Black British/ Other Black Background	2	0.20%
Mixed/Dual Heritage: White & Asian	5	0.51%
Mixed/Dual Heritage: White & Black African	0	0.00%
Mixed/Dual Heritage: White & Black Caribbean	5	0.51%
Mixed/Dual Heritage: Any Other Mixed Background	16	1.62%
Other Ethnic Groups: Afghan	0	0.00%
Other Ethnic Groups: Arabic	2	0.20%
Other Ethnic Groups: Turkish	2	0.20%
Other Ethnic Groups: Eastern European	2	0.20%
Other Ethnic Groups / Any other Groups	24	2.44%
White: British /English/ Welsh/ Scottish/ Northern Irish	308	31.27%
White: Irish	50	5.08%
White: Traveller of Irish Heritage	1	0.10%
White: Gypsy/Roma	0	0.00%
White: Other	148	15.03%
Prefer not to say	273	27.72%
Not Answered	46	4.67%

8: Please indicate your sex:

Gender

There were 938 responses to this part of the question.

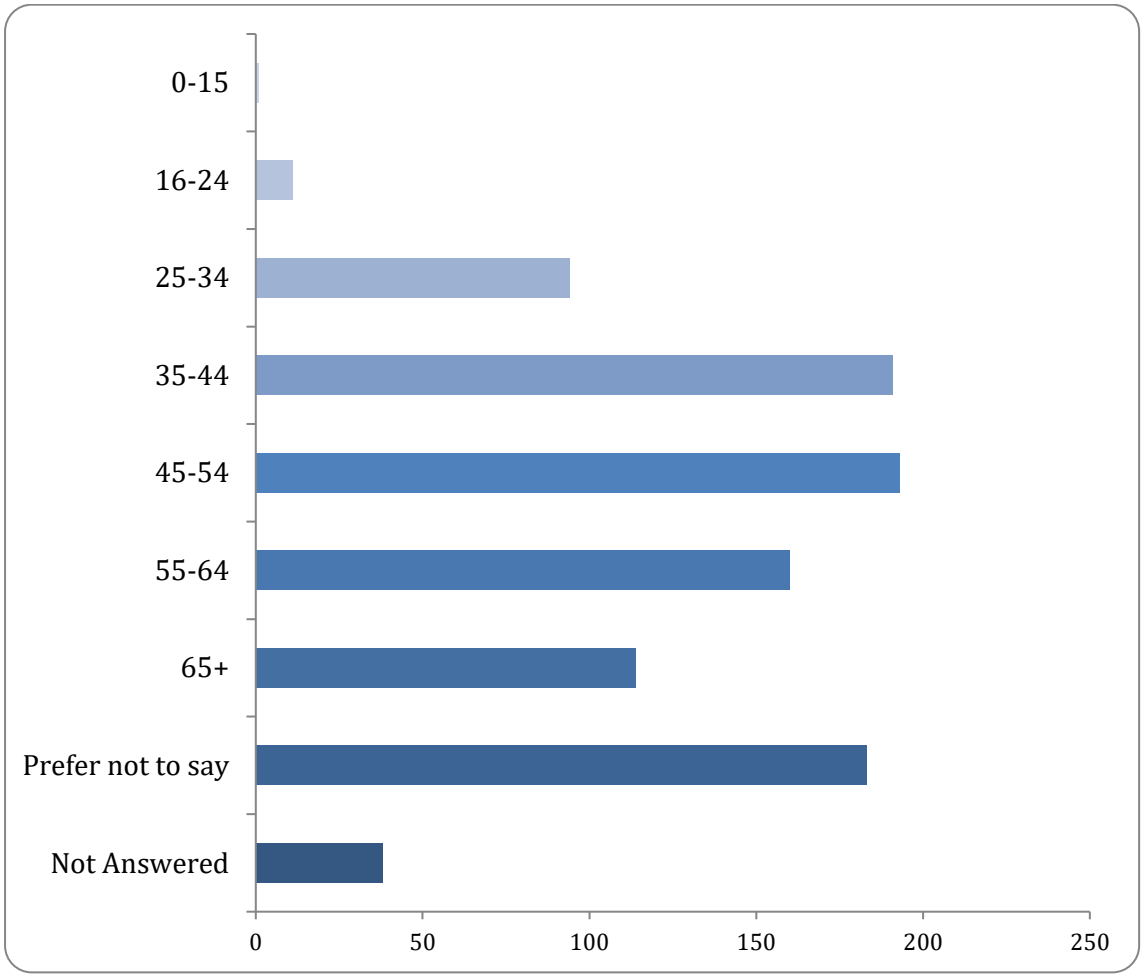


Option	Total	Percent
Male	365	37.06%
Female	400	40.61%
Prefer not to say	173	17.56%
Not Answered	47	4.77%

9: What is your age?

Age

There were 947 responses to this part of the question.



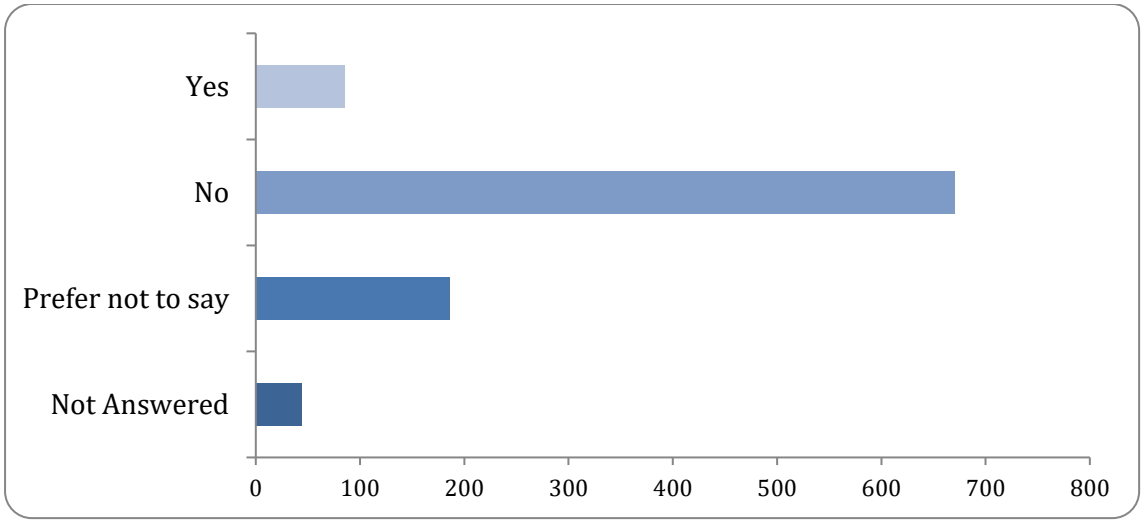
Option	Total	Percent
0-15	1	0.10%
16-24	11	1.12%
25-34	94	9.54%
35-44	191	19.39%
45-54	193	19.59%
55-64	160	16.24%

65+	114	11.57%
Prefer not to say	183	18.58%
Not Answered	38	3.86%

10: Do you consider yourself to have a disability?

Disability

There were 941 responses to this part of the question.

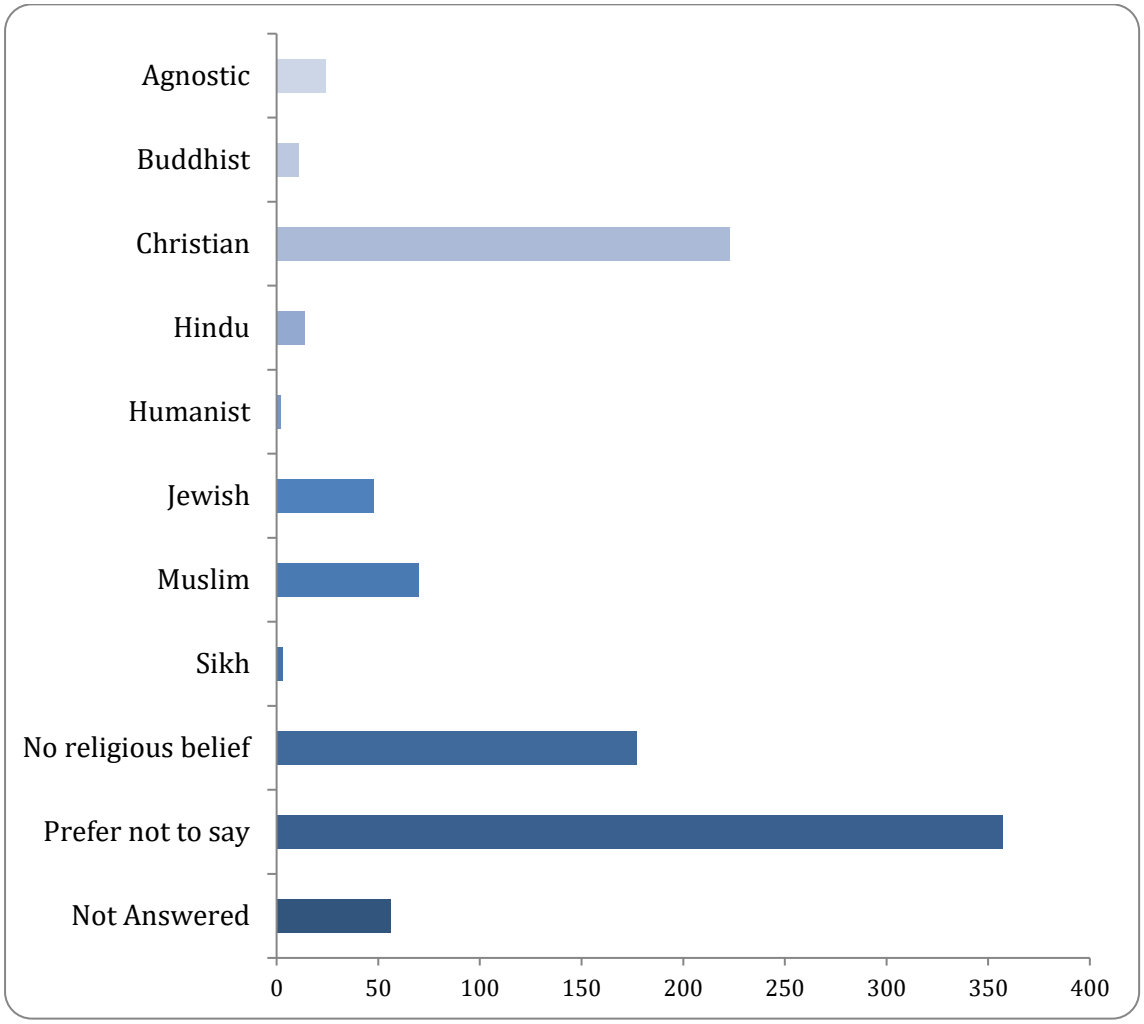


Option	Total	Percent
Yes	85	8.63%
No	670	68.02%
Prefer not to say	186	18.88%
Not Answered	44	4.47%

11: What is your religion/belief?

Religion

There were 929 responses to this part of the question.

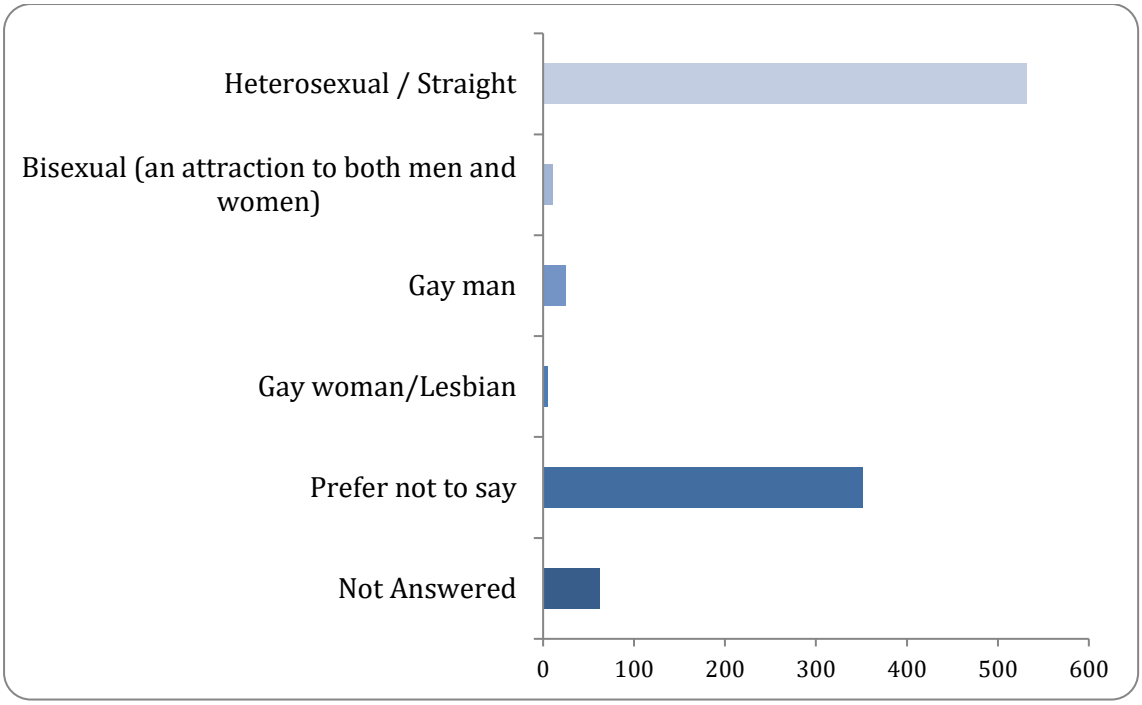


Option	Total	Percent
Agnostic	24	2.44%
Buddhist	11	1.12%
Christian	223	22.64%
Hindu	14	1.42%
Humanist	2	0.20%
Jewish	48	4.87%
Muslim	70	7.11%
Sikh	3	0.30%
No religious belief	177	17.97%
Prefer not to say	357	36.24%
Not Answered	56	5.69%

12: What is your sexual orientation?

Sexuality

There were 923 responses to this part of the question.



Option	Total	Percent
Heterosexual / Straight	532	54.01%
Bisexual (an attraction to both men and women)	10	1.02%
Gay man	25	2.54%
Gay woman/Lesbian	5	0.51%
Prefer not to say	351	35.63%
Not Answered	62	6.29%

Quality

It is the policy of Project Centre to supply Services that meet or exceed our clients' expectations of Quality and Service. To this end, the Company's Quality Management System (QMS) has been structured to encompass all aspects of the Company's activities including such areas as Sales, Design and Client Service.

By adopting our QMS on all aspects of the Company, Project Centre aims to achieve the following objectives:

- Ensure a clear understanding of customer requirements;
- Ensure projects are completed to programme and within budget;
- Improve productivity by having consistent procedures;
- Increase flexibility of staff and systems through the adoption of a common approach to staff appraisal and training;
- Continually improve the standard of service we provide internally and externally;
- Achieve continuous and appropriate improvement in all aspects of the company;

Our Quality Management Manual is supported by detailed operational documentation. These relate to codes of practice, technical specifications, work instructions, Key Performance Indicators, and other relevant documentation to form a working set of documents governing the required work practices throughout the Company.

All employees are trained to understand and discharge their individual responsibilities to ensure the effective operation of the Quality Management System.

Award Winning

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