





Post-scheme Monitoring

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Post-scheme Monitoring

Introduction

- The Bowes Quieter Neighbourhood scheme was implemented in September 2020.
- Traffic surveys have been undertaken before the scheme was implemented (in July 2020) and after (in September 2021), to understand how the scheme has influenced the local and surrounding highway network.
- The data collected includes: traffic volumes, traffic speeds, bus journey times as well as pedestrian and cycle volumes for the study area.
- This report provides a summary of the analysis undertaken comparing the pre-scheme and post-scheme data, as part of the post-scheme monitoring.
- Both the pre-implementation and post-implementation surveys were carried out when COVID restrictions were in place and therefore traffic volumes have been affected by COVID travel restrictions. Travel patterns have changed as a result of COVID, for example, more people are working from home, and this is likely to continue to some extent going forward, so traffic conditions are likely to be different in the future, compared to Pre-COVID conditions. A sensitivity test has been undertaken which applies a factor to the surveyed traffic data, to mitigate the impacts of COVID, with further information found in the Appendix. Enfield will also continue to monitor traffic levels across the area.







Post-scheme Monitoring

Traffic Surveys

- Traffic volumes and speeds have been captured using Automated Traffic Count (ATC) loops that measure traffic volumes by vehicle type and the speed of traffic.
- ATC data has been collected at sites shown on the following slide, to understand both the changes in traffic volumes and speeds within the Quieter Neighbourhood area, as well as the changes in traffic volumes and speeds on external roads where potential increases are anticipated. Unless specified, the surveys were undertaken over the following dates:
 - Pre-scheme surveys 18th 24th July 2020
 - Post-scheme surveys 16th 28th September 2021
- The following slides compare the surveyed traffic flows between the two survey dates.
- The sensitivity test, where a factor has been applied to mitigate the impacts of COVID on both the pre-implementation and post-implementation surveys, can be found in <u>Appendix</u>. As previously stated, traffic patterns have changed as a result of COVID, for example, people will continue to work from home, so the sensitivity test is only an estimate and Enfield will continue to monitor traffic flows across the area.







Post-scheme Monitoring

Traffic Surveys

- . The data is presented in both graphic and tabular format for the following time periods.
 - 24-hour weekday period
 - Weekday AM peak hour
 - Weekday PM peak hour
- As shown in the previous slide the surveyed roads have been categorised in the following way:
 - Local roads which are predominantly residential roads, which are not expected to carry significant volumes of through traffic
 - Borough distributor roads which are roads feeding the local roads in the area
 - Strategic roads which are roads carrying larger volumes of traffic, the majority of which is passing through an area
- Pre-scheme ATC data for Wilmer Way and Powys Lane (site ref 35 and 36) was collected in 2019. The pre-scheme data for sites 23 to 27 are from earlier years and therefore these sites have been assessed separately from the majority of the sites, with details included in the Appendix.











Post-scheme Monitoring

Local Road Total Traffic Volumes – 24hrs

| Area | Ref | ATC Location | Pre-scheme 24hr vehicle flows (veh) | Post-scheme 24hr vehicle flows (veh) | Difference | % Difference |
|------------------------|-----|--------------------|---|--|------------|--------------|
| | 1 | Highworth Road | 520 | 613 | 93 | 18% |
| | 2 | Warwick Road | 2750 | 1863 | -887 | -32% |
| | 3 | Natal Road | 438 | 477 | 39 | 9% |
| | 4 | York Road | 1925 | 141 | -1784 | -93% |
| | 5 | Maidstone Road | 1111 | 174 | -937 | -84% |
| | 6 | Palmerston Road | 3075 | 1186 | -1889 | -61% |
| 10 | 7 | Truro Road | 3184 | 3695 | 511 | 16% |
| oad | 8 | Sidney Road | 709 | 682 | -27 | -4% |
| - R | 9 | Myddleton Road | 2081 | 2227 | 146 | 7% |
| 0.C3 | 10 | Belsize Avenue | 1266 | 1058 | -208 | -16% |
| QN Local Roads | 11 | Lascotts Road | 1004 | 912 | -92 | -9% |
| O | 12 | Melbourne Avenue | 565 | 493 | -72 | -13% |
| | 13 | Spencer Avenue | 635 | 1324 | 689 | 109% |
| | 14 | Sidney Avenue | 516 | 439 | -77 | -15% |
| | 15 | Kelvin Avenue | 1629 | 1177 | -452 | -28% |
| | 16 | Nightingale Road | 2612 | 3351 | 739 | 28% |
| | 17 | Marquis Road | 448 | 431 | -17 | -4% |
| | 18 | Tewkesbury Terrace | 389 | 285 | -104 | -27% |
| ds | 19 | Palmers Road | 2603 | 3669 | 1066 | 41% |
| rnal | 20 | Rhys Avenue | 51 | 174 | 123 | 241% |
| External ocal Roads | 21 | Woodfield Way | 1208 | 1848 | 640 | 53% |
| Loc | 22 | Wroxham Gardens | 1523 | 1165 | -358 | -24% |

- Overall there has been a reduction in traffic on the surveyed local roads within the Quieter Neighbourhood with an average reduction of 17%.
- Some roads have seen an increase, such as Spencer Avenue, Myddleton Road, Nightingale Road and Truro Road - Mitigation to reduce traffic on these roads is proposed as part of Haringey Council's Bounds Green Low Traffic Neighbourhood.
- 3 of the 4 sites surveyed outside the Quieter
 Neighbourhood have seen an increase in traffic on local roads.
- Of these, mitigation as part of Haringey Council's Bounds Green Low Traffic Neighbourhood is included for Rhys Avenue and Woodfield Way, with Enfield Council investigating mitigation measures for Palmers Road.





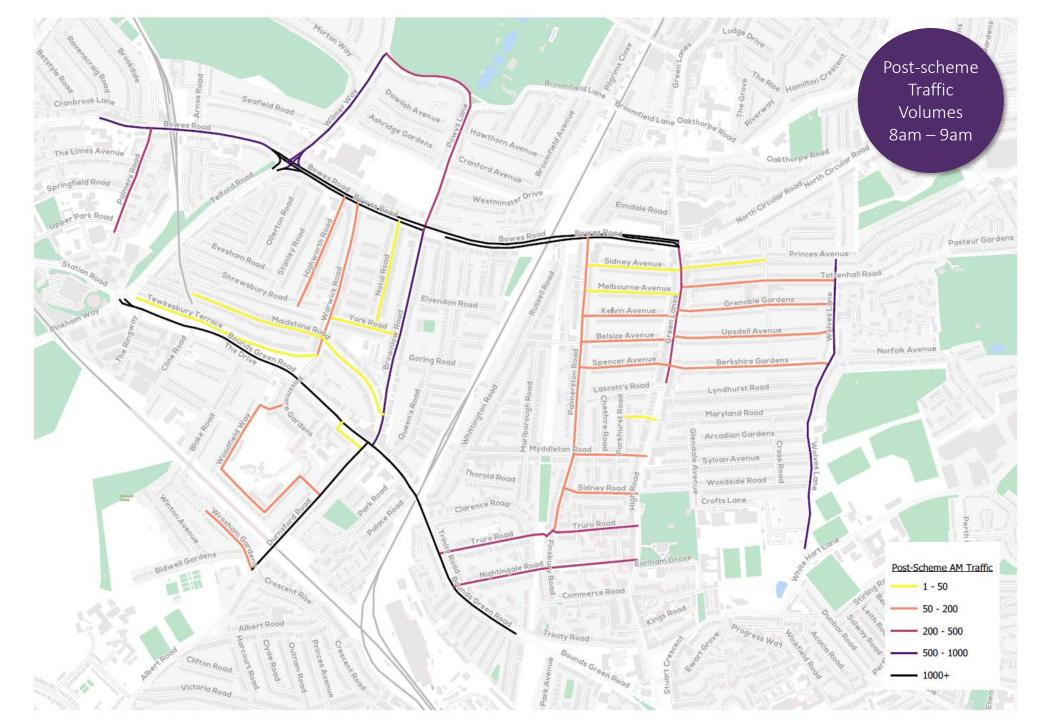
Post-scheme Monitoring

Strategic/Distributor Road Total Traffic Volumes – 24hrs

| Area | Ref | ATC Location | Pre-scheme 24hr vehicle flows (veh) | Post-scheme 24hr vehicle flows (veh) | Difference | % Difference |
|-----------------------|--|------------------|---|--|------------|--------------|
| N N | 28 | Brownlow Road | 13319 | 13601 | 282 | 2% |
| ∑ N N | 29 | A406 Bowes Road | 72117 | 73123 | 1006 | 1% |
| Boundary to the QN | 29 A406 Bowes Road 30 Bounds Green Road 31 Green Lanes | 21703 | 19253 | -2450 | -11% | |
| Bo | 31 | Green Lanes | 16084 | 10114 | -5970 | -37% |
| | 32 | A1110 Bowes Road | 12788 | 14073 | 1285 | 10% |
| ۶۲ | 33 | Durnsford Road | 12566 | 13415 | 849 | 7% |
| etw | 34 | Wolves Lane | 9198 | 11213 | 2015 | 22% |
| Wider network | 35 Wilmer Way | | 12979 | 11237 | -1742 | -13% |
| Wid | 36 | Powys Lane | 8159 | 7796 | -363 | -4% |
| | 37 | Station Road | 14424 | 13697 | -727 | -5% |

- Brownlow Road, which runs north/south through the Quieter Neighbourhood, has seen an increase of 2% over a 24 hour period.
- Based on the 3 sites surveyed, the strategic/ distributor roads on the boundary of the Quieter Neighbourhood have seen an average decrease in traffic of 7%.
- Based on the 6 sites surveyed, the strategic roads on the wider network have seen an average increase in traffic of 2%.











Post-scheme Monitoring

Local Road Total Traffic Volumes – AM Peak

| Area | Ref | ATC Location | Pre-scheme AM vehicle flows (veh) | Post-scheme AM vehicle flows (veh) | Difference | % Difference |
|-------------------------|-----|--------------------|---|--|------------|--------------|
| | 1 | Highworth Road | 11 | 70 | 59 | 483% |
| | 2 | Warwick Road | 66 | 153 | 87 | 132% |
| | 3 | Natal Road | 16 | 27 | 11 | 69% |
| | 4 | York Road | 99 | 5 | -94 | -95% |
| | 5 | Maidstone Road | 54 | 9 | -45 | -83% |
| | 6 | Palmerston Road | 124 | 68 | -56 | -45% |
| ω. | 7 | Truro Road | 247 | 360 | 113 | 46% |
| QN Local Roads | 8 | Sidney Road | 34 | 54 | 20 | 59% |
| E R | 9 | Myddleton Road | 101 | 166 | 65 | 64% |
| .00 | 10 | Belsize Avenue | 69 | 65 | -4 | -6% |
| Z Z | 11 | Lascotts Road | 47 | 43 | -4 | -9% |
| O | 12 | Melbourne Avenue | 36 | 23 | -13 | -36% |
| | 13 | Spencer Avenue | 30 | 76 | 46 | 153% |
| | 14 | Sidney Avenue | 26 | 23 | -3 | -12% |
| | 15 | Kelvin Avenue | 66 | 63 | -3 | -5% |
| | 16 | Nightingale Road | 168 | 212 | 44 | 26% |
| | 17 | Marquis Road | 17 | 22 | 5 | 29% |
| | 18 | Tewkesbury Terrace | 19 | 17 | -2 | -11% |
| _ sp | 19 | Palmers Road | 130 | 361 | 231 | 178% |
| rnal | 20 | Rhys Avenue | 3 | 7 | 4 | 133% |
| External Local Roads | 21 | Woodfield Way | 41 | 167 | 126 | 307% |
| Lo | 22 | Wroxham Gardens | 68 | 107 | 39 | 57% |

- In the AM peak hour, on the local roads within the Quieter Neighbourhood there is an average increase of 18% on the surveyed sites. This is primarily due to increases on the roads in the south-east of Quieter Neighbourhood, such as Truro Road, Myddleton Road, Spencer Avenue and Nightingale Road, with traffic cutting through the area between Green Lanes and Bounds Green Road. The increases on these roads would be mitigated by Haringey's proposed Bounds Green Liveable Neighbourhood, which is likely to reduce traffic flows on these roads to below prescheme levels.
- Where increases are seen west of Brownlow Road, this appears to be the result of local traffic changing how they access the area, following the implementation of the scheme, with some roads seeing increases and others decreases.
- On the external local roads all the sites have seen an increase. These roads are also likely to see a reduction in traffic, if the Bounds Green Liveable Neighbourhood is implemented. Enfield Council will also investigate potential mitigation for Palmers Road.





Post-scheme Monitoring

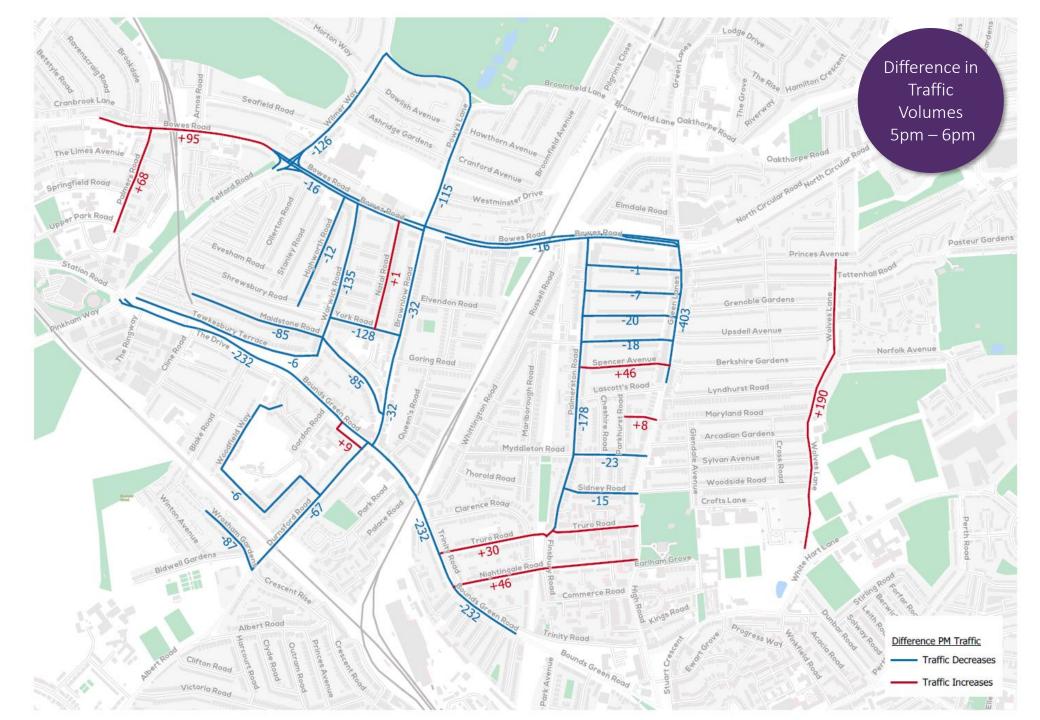
Strategic/Distributor Road Total Traffic Volumes – AM peak

| Area | Ref | ATC Location | Pre-scheme AM vehicle flows (veh) | Post-scheme AM vehicle flows (veh) | Difference | % Difference |
|-----------------------|---------------|-------------------|---|--|------------|--------------|
| N N | 28 | Brownlow Road | 811 | 891 | 80 | 10% |
| ≥ Z | 29 | A406 Bowes Road | 3443 | 3496 | 53 | 2% |
| Boundary to the QN | 30 | Bounds Green Road | 1317 | 1188 | -129 | -10% |
| Bo | 31 | Green Lanes | 885 | 481 | -404 | -46% |
| | 32 | A1110 Bowes Road | 639 | 819 | 180 | 28% |
| 주 논 | 33 | Durnsford Road | 810 | 1062 | 252 | 31% |
| etw | 34 | Wolves Lane | 409 | 824 | 415 | 101% |
| Wider network | 35 | Wilmer Way | 792 | 622 | -170 | -21% |
| Wid | 36 Powys Lane | | 490 | 421 | -69 | -14% |
| | 37 | Station Road | 971 | 880 | -91 | -9% |

- Traffic on Brownlow Road increases by 10% during the AM peak.
- Based on the 3 sites surveyed the strategic/ distributor roads on the boundary of the Quieter Neighbourhood have seen an average decrease in traffic of 9%.
- Based on the 6 sites surveyed the strategic/distributor roads on the wider network have seen an average increase in traffic of 13%.











Post-scheme Monitoring

Local Road Total Traffic Volumes – PM Peak

| Area | Ref | ATC Location | Pre-scheme PM vehicle flows (veh) | Post-scheme PM vehicle flows (veh) | Difference | % Difference |
|------------------------|-----|--------------------|---|--|------------|--------------|
| | 1 | Highworth Road | 51 | 39 | -12 | -24% |
| | 2 | Warwick Road | 262 | 127 | -135 | -52% |
| | 3 | Natal Road | 36 | 37 | 1 | 3% |
| | 4 | York Road | 138 | 10 | -128 | -93% |
| | 5 | Maidstone Road | 96 | 11 | -85 | -89% |
| | 6 | Palmerston Road | 295 | 118 | -177 | -60% |
| | 7 | Truro Road | 240 | 270 | 30 | 13% |
| ads | 8 | Sidney Road | 55 | 40 | -15 | -27% |
| QN Local Roads | 9 | Myddleton Road | 156 | 133 | -23 | -15% |
| 00 | 10 | Belsize Avenue | 88 | 69 | -19 | -22% |
| Z Z | 11 | Lascotts Road | 84 | 63 | -21 | -25% |
| O | 12 | Melbourne Avenue | 34 | 26 | -8 | -24% |
| | 13 | Spencer Avenue | 50 | 96 | 46 | 92% |
| | 14 | Sidney Avenue | 29 | 28 | -1 | -3% |
| | 15 | Kelvin Avenue | 119 | 98 | -21 | -18% |
| | 16 | Nightingale Road | 197 | 243 | 46 | 23% |
| | 17 | Marquis Road | 31 | 39 | 8 | 26% |
| | 18 | Tewkesbury Terrace | 36 | 30 | -6 | -17% |
| _ sp | 19 | Palmers Road | 220 | 289 | 69 | 31% |
| External ocal Roads | 20 | Rhys Avenue | 5 | 14 | 9 | 180% |
| call | 21 | Woodfield Way | 135 | 129 | -6 | -4% |
| و ۳ | 22 | Wroxham Gardens | 203 | 116 | -87 | -43% |

- The PM shows a reduction in traffic on local roads within the Quieter Neighbourhood, with an average of 26%, based on the surveyed sites.
- On the external local roads, traffic flows remain higher than the pre-scheme surveys at 2 of the 4 sites, with mitigation proposed to improve this.





Post-scheme Monitoring

Strategic/Distributor Road Total Traffic Volumes - PM peak

| Area | Ref | ATC Location | Pre-scheme PM vehicle flows (veh) | Post-scheme PM vehicle flows (veh) | Difference | % Difference |
|-----------------------|---------------|-------------------|---|--|------------|--------------|
| NO | 28 | Brownlow Road | 883 | 851 | -32 | -4% |
| ∑ Z | 29 | A406 Bowes Road | 3881 | 3865 | -16 | 0% |
| Boundary to the QN | 30 | Bounds Green Road | 1404 | 1173 | -231 | -16% |
| Bo to t | 31 | Green Lanes | 861 | 457 | -404 | -47% |
| | 32 | A1110 Bowes Road | 806 | 901 | 95 | 12% |
| Ā | 33 | Durnsford Road | 843 | 776 | -67 | -8% |
| etw | 34 | Wolves Lane | 873 | 1063 | 190 | 22% |
| Wider network | 35 | Wilmer Way | 881 | 755 | -126 | -14% |
| Wid | 36 Powys Lane | | 623 | 508 | -115 | -18% |
| | 37 | Station Road | 1052 | 957 | -95 | -9% |

- Traffic on Brownlow Road decreased by 4% during the PM peak.
- The strategic/distributor roads on the boundary of the Quieter Neighbourhood have seen a reduction in traffic of 11% on average.
- There is also an average reduction of traffic on the strategic/ distributor roads on the wider network of 2%.





Post-scheme Monitoring

Traffic Flow Analysis- Conclusions

- Analysis of the traffic data has shown that overall there has been a reduction in traffic on the local roads within the Quieter Neighbourhood.
- Some of the internal roads have seen increases including Highworth Road, Warwick Road (AM only), Natal Road, Truro Road, Sidney Road (AM only), Myddleton Road, Spencer Avenue, Nightingale Road and Marquis Road.
- The increases on roads such as Highworth Road, Natal Road, Sidney Road, Spencer Avenue, Nightingale Road and Marquis Road are, on average, less than an additional vehicle per minute and are not likely to be noticeable, or have a significant impact.
- Increases in traffic volumes experienced on Highworth Road, Warwick Road, Natal Road, Truro Road, Sidney Road, Myddleton Road, Spencer Avenue, Nightingale Road and Marquis Road would be mitigated through the implementation of the London Borough of Haringey's Bounds Green Low Traffic Neighbourhood scheme.

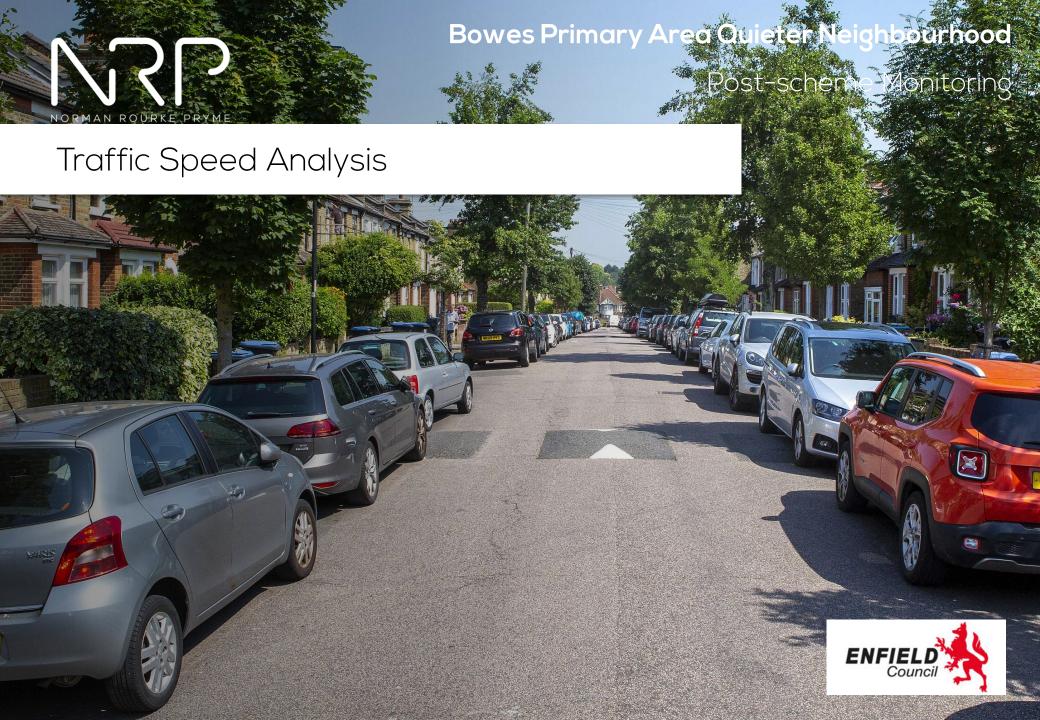




Post-scheme Monitoring

Traffic Flow Analysis- Conclusions

- Analysis of the traffic data on local roads external to the Quieter Neighbourhood show increases on Palmers Road, Rhys Avenue, Woodfield Way and Wroxham Gardens (AM only).
- Increases reported on Wroxham Gardens, Rhys Avenue and Woodfield Way will be mitigated through the implementation the London Borough of Haringey Bounds Green Low Traffic Neighbourhood scheme.
- Enfield Council plan to undertake a study to look at Palmers Road to understand what mitigation may be required.
- Increases reported on the strategic/borough distributor roads are a result of the through traffic that
 was previously on the local roads reassigning onto the roads designed to accommodate higher
 volumes of traffic. A concern surrounding the increases in traffic on these roads is the impact any
 congestion may have on bus journey times.
- The impact on bus journey times is explored in more detail later in the report. This analysis is also a
 good indication of the impact on general traffic journey times. This analysis indicates that overall
 there is not a significant impact on bus journey times on the strategic/local distributor roads as a
 result of the Bowes Quieter Neighbourhood.







Post-scheme Monitoring

Traffic Speeds

- The ATCs have also been used to measure changes in vehicle speeds before and after the Quieter Neighbourhood scheme was implemented.
- Vehicle speeds have been assessed for the same locations as the traffic volumes.
- Speeds have been captured in miles per hour and have been provided as an average over a 24hr period.
- The average speeds have also been compared for each road for both the AM peak (8-9am) and PM peak (5-6pm) periods.





Post-scheme Monitoring

Average Vehicle Speeds - Local Roads within the QN

| | | | | 24hr | | А | M Peak (8-9 | am) | PI | M Peak (5-6pn | n) |
|-----|--------------------|-----------|---|--|---------------------|---|--|---------------------|---------|---------------------------------------|---------------------|
| Ref | Location | Direction | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Vehicle | Post-scheme Vehicle Speed (mph) | Difference (mph) |
| | | NB | 20 | 16 | -4 | 20 | 15 | -5 | 21 | 16 | -5 |
| 1 | Highworth Road | SB | 25 | 21 | -4 | 17 | 19 | 2 | 17 | 18 | 1 |
| 2 | Warwick Road | NB | 20 | 19 | -1 | 21 | 18 | -3 | 20 | 18 | -2 |
| 2 | warwick Road | SB | 25 | 23 | -2 | 21 | 18 | -3 | 20 | 19 | -1 |
| 3 | Natal Road | NB | 19 | 17 | -2 | 18 | 16 | -2 | 18 | 17 | -1 |
| 5 | Natal Rodu | SB | 25 | 23 | -2 | 19 | 15 | -4 | 17 | 16 | -1 |
| 4 | York Road | EB | 18 | 15 | -3 | 19 | 13 | -6 | 18 | 14 | -4 |
| 4 | уогк коаа | WB | 22 | 21 | -1 | 18 | 13 | -5 | 17 | 15 | -2 |
| 5 | Maidstone Road | EB | 21 | 15 | -6 | 20 | 12 | -8 | 22 | 16 | -6 |
| 3 | MaidStoffe Road | WB | 26 | 22 | -4 | 22 | 14 | -8 | 22 | 17 | -5 |
| 6 | Palmerston Road | NB | 15 | 14 | -1 | 14 | 14 | 0 | 15 | 15 | 0 |
| O | Talliferstoff Road | SB | 20 | 19 | -1 | 15 | 15 | 0 | 15 | 15 | 0 |
| 7 | Truro Road | EB | 17 | 17 | 0 | 17 | 17 | 0 | 17 | 17 | 0 |
| , | Traio Noda | WB | 21 | 20 | -1 | 19 | 18 | -1 | 18 | 18 | 0 |
| 8 | Sidney Road | EB | 13 | 17 | 4 | 13 | 18 | 5 | 13 | 15 | 2 |
| Ü | Sidiley Rodd | WB | 16 | 22 | 6 | 14 | 18 | 4 | 14 | 16 | 2 |
| 9 | Myddleton Road | EB | 13 | 18 | 5 | 13 | 18 | 5 | 13 | 16 | 3 |
| 3 | in y daicton nodu | WB | 16 | 22 | 6 | 13 | 17 | 4 | 13 | 16 | 3 |
| 10 | Belsize Avenue | WB | 19 | 13 | -6 | 20 | 11 | -9 | 20 | 13 | -7 |





Post-scheme Monitoring

Average Vehicle Speeds - Local Roads within the QN

| | | | | 24hr | | А | M Peak (8-9a | am) | PI | VI Peak (5-6pn | 1) |
|-----|--------------------|-----------|---|--|---------------------|---|--|---------------------|---------|---------------------------------------|---------------------|
| Ref | Location | Direction | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Vehicle | Post-scheme Vehicle Speed (mph) | Difference (mph) |
| 11 | Lascotts Road | EB | 15 | 12 | -3 | 15 | 13 | -2 | 16 | 11 | -5 |
| 11 | Lascotts Road | WB | 19 | 15 | -4 | 17 | 13 | -4 | 17 | 12 | -5 |
| 12 | Melbourne Avenue | WB | 16 | 14 | -2 | 22 | 19 | -3 | 20 | 20 | 0 |
| 13 | Spencer Avenue | EB | 20 | 22 | 2 | 20 | 22 | 2 | 20 | 21 | 1 |
| 14 | Sidney Avenue | WB | 17 | 16 | -1 | 19 | 20 | 1 | 17 | 19 | 2 |
| 15 | Kelvin Avenue | EB | 21 | 21 | 0 | 21 | 21 | 0 | 21 | 21 | 0 |
| 16 | Nightingale Road | EB | 17 | 17 | 0 | 18 | 17 | -1 | 17 | 18 | 1 |
| 10 | Mgntingale Noau | WB | 21 | 21 | 0 | 17 | 17 | 0 | 17 | 17 | 0 |
| 17 | Marguis Road | EB | 16 | 16 | 0 | 14 | 15 | 1 | 16 | 14 | -2 |
| | Trial quis moud | WB | 20 | 19 | -1 | 16 | 16 | 0 | 16 | 16 | 0 |
| 18 | Tewkesbury Terrace | EB | 17 | 16 | -1 | 15 | 15 | 0 | 17 | 18 | 1 |
| 10 | Tewkessary Terrace | WB | 23 | 21 | -2 | 15 | 17 | 2 | 14 | 18 | 4 |

• Across the 18 surveyed local roads within the Quieter Neighbourhood, vehicle speeds have reduced by an average of 1 mph.





Post-scheme Monitoring

Average Vehicle Speeds - Local Roads Outside the QN

| | | | | 24hr | | А | M Peak (8-9a | am) | PI | M Peak (5-6pn | n) |
|-----|--------------------|-----------|---|--|---------------------|---|--|---------------------|---------|---------------------------------------|---------------------|
| Ref | Location | Direction | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Vehicle | Post-scheme Vehicle Speed (mph) | Difference (mph) |
| 19 | Palmers Road | NB | 17 | 18 | 1 | 17 | 17 | 0 | 17 | 18 | 1 |
| 19 | Paimers Road | SB | 22 | 23 | 1 | 17 | 17 | 0 | 14 | 15 | 1 |
| 20 | Phys Avanua | EB | 13 | 19 | 6 | 11 | 16 | 5 | 12 | 15 | 3 |
| 20 | Rhys Avenue | WB | 15 | 19 | 4 | 14 | 18 | 4 | 14 | 14 | 0 |
| 21 | Moodfield Mov | EB | 13 | 12 | -1 | 13 | 12 | -1 | 13 | 12 | -1 |
| 21 | 21 Woodfield Way | WB | 15 | 15 | 0 | 14 | 13 | -1 | 14 | 11 | -3 |
| 22 | 22 Wroxham Gardens | NB | 14 | 13 | -1 | 13 | 12 | -1 | 14 | 13 | 0 |
| 22 | | SB | 16 | 16 | 0 | 14 | 13 | -1 | 13 | 16 | 3 |

 Across the 4 local roads surveyed outside the Quieter Neighbourhood, vehicle speeds have increased by an average of 1 mph over the 24 hour period, with a similar increase in the AM and PM peak.





Post-scheme Monitoring

Average Vehicle Speeds - Boundary Roads

| | Ref Location | | | 24hr | | А | M Peak (8-9a | am) | PI | M Peak (5-6pr | n) |
|-----|--------------------|-----------|---|--|---------------------|---|--|---------------------|---------|---------------------------------------|---------------------|
| Ref | | Direction | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Vehicle | Post-scheme Vehicle Speed (mph) | Difference (mph) |
| 28 | Brownlow Road | NB | 19 | 15 | -4 | 21 | 16 | -5 | 16 | 14 | -2 |
| 20 | DIOWIIIOW ROAU | SB | 24 | 15 | -9 | 25 | 23 | -2 | 23 | 23 | 0 |
| 30 | Bounds Green Road | EB | 23 | 20 | -3 | 24 | 18 | -6 | 22 | 18 | -4 |
| 30 | Boullus Green Roau | WB | 29 | 26 | -3 | 24 | 24 | 0 | 23 | 23 | 0 |
| 21 | Groon Lanos | NB | 20 | 19 | -1 | 23 | 17 | -6 | 16 | 13 | -3 |
| 21 | 31 Green Lanes | | 27 | 26 | -1 | 21 | 18 | -3 | 19 | 18 | -1 |

• Across the 3 surveyed boundary roads, vehicle speeds have reduced by an average of 4 mph across the 24 hour period, with a similar reduction seen in the AM peak and a reduction of approximately 2 mph in the PM peak.





Post-scheme Monitoring

Average Vehicle Speeds - Strategic Roads

| | | | | 24hr | | А | M Peak (8-9a | am) | PI | M Peak (5-6pr | n) |
|-----|-------------------|-----------|---|--|---------------------|---|--|---------------------|---------|---------------------------------------|---------------------|
| Ref | Location | Direction | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Pre- scheme Vehicle Speed (mph) | Post- scheme Vehicle Speed (mph) | Difference (mph) | Vehicle | Post-scheme Vehicle Speed (mph) | Difference (mph) |
| 32 | 22 Pausa Baad | EB | 28 | 21 | -7 | 26 | 13 | -13 | 26 | 15 | -11 |
| 32 | Bowes Road | WB | 33 | 29 | -4 | 28 | 24 | -4 | 27 | 24 | -3 |
| 33 | Durnsford Road | NB | 19 | 19 | 0 | 23 | 18 | -5 | 14 | 13 | -1 |
| 33 | Dullisiola Roda | SB | 26 | 26 | 0 | 24 | 22 | -2 | 23 | 22 | -1 |
| 34 | Wolves Lane | NB | 18 | 16 | -2 | 18 | 16 | -2 | 17 | 14 | -3 |
| 34 | woives Lane | SB | 22 | 20 | -2 | 20 | 17 | -3 | 17 | 16 | -1 |
| 35 | Wilmor Wov | EB | 24 | 24 | 0 | 22 | 19 | -3 | 23 | 24 | 1 |
| 33 | Wilmer Way | WB | 22 | 30 | 8 | 18 | 18 | 0 | 22 | 23 | 1 |
| 26 | 26 Devemos Learne | EB | 23 | 22 | -1 | 23 | 19 | -4 | 21 | 22 | 1 |
| 30 | 36 Powys Lane | WB | 20 | 26 | 6 | 16 | 16 | 0 | 19 | 20 | 1 |
| 27 | 37 Station Road | EB | 25 | 23 | -2 | 24 | 21 | -3 | 25 | 23 | -2 |
| 3/ | | WB | 27 | 22 | -5 | 26 | 21 | -5 | 27 | 21 | -6 |

• Across the 6 surveyed strategic roads on the wider network, average speeds have changed by less than 1mph over the 24 hour period, with reduction or 2-3mph in the AM and PM peaks.





Post-scheme Monitoring

Traffic Speeds - Conclusions

- Analysis of the traffic speeds shows that the proposed Quieter Neighbourhood has not had a significant impact of average vehicle speeds either within the Quieter Neighbourhood or the wider surrounding highway network.
- Speed analysis of the boundary roads suggests an average reduction of approximately 4mph. This
 reduction in speed is not considered significant.
- Bowes Road has seen an increase in vehicular traffic following the implementation of the Quieter Neighbourhood, which is likely to have contributed to lower vehicle speeds along the corridor. Changes in speeds on Bounds Green Road and Green Lanes may be not be directly related to the Quieter Neighbourhood and could be due to other factors.







Post-scheme Monitoring

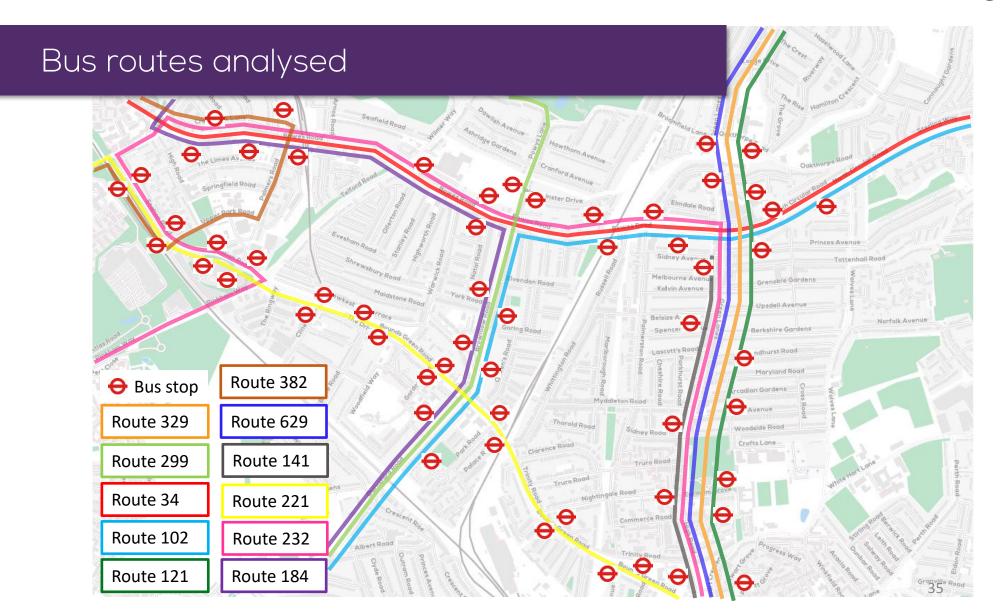
Bus Journey Time Data

- TfL bus journey time data has been used to understand the impact the scheme has had on local bus routes through the area.
- TfL record the time it takes for bus services to travel between stops. The data is referred to as iBus data. TfL iBus data has been recorded from October 2019 to October 2021 for all the buses within the local area that could be influenced by the scheme.
- Reported pre scheme journey times are an average of the journey times for a bus route (in seconds) for the period from November 2019 to Feb 2020, before COVID travel restrictions were introduced.
- Post scheme journey times are an average of the journey times for a bus route (in seconds) following the relaxation of lockdown restrictions from September 2021 to October 2021.
- The following slide shows the routes that have been assessed as part of the monitoring.





Post-scheme Monitoring







Post-scheme Monitoring

Bus Journey Time Data

- The bus journey time data has been assessed for the AM and PM peak periods, with the following slides showing the results.
- The data indicates that some bus journey times have increased and some have decreased. There are 3 routes (all during the AM Peak) that have seen increases of more the 60 seconds.
 - 184 Northbound
 - 221 Westbound
 - 232 Eastbound
- For these 3 routes, the route through the area has been broken down into sections (showing the journey times between bus stops) to determine the source of delay.





Post-scheme Monitoring

Bus Route Journey Time Results - AM peak

| Bus Route | From | То | Pre-scheme Bus Journey Time (s) | Post-scheme Bus Journey Time (s) | Change in Bus Journey Time (s) |
|-----------|--------------------------|---------------------------|---------------------------------------|--|--------------------------------------|
| 34 EB | Telford Rd GP | Green Lanes P | 413 | 420 | 7 |
| 34 WB | Green Lanes V | Arnos Grove Swimming Pool | 571 | 590 | 19 |
| 102 NB | Woodfield Way GD | Green Lanes P | 603 | 628 | 25 |
| 102 SB | Green Lanes V | Woodfield Way GZ | 731 | 718 | -13 |
| 121 NB | Haringey Civic Centre BP | North Circular Road L | 692 | 675 | -17 |
| 121 SB | North Circular Road M | Haringey Civic Centre BY | 623 | 617 | -6 |
| 141 NB | Haringey Civic Centre BP | Tottenhall Road T | 474 | 447 | -27 |
| 141 SB | Tottenhall Road W | Haringey Civic Centre BY | 485 | 467 | -18 |
| 184 NB | Woodfield Way GD | Arnos Grove Swimming Pool | 423 | 497 | 74 |
| 184 SB | Telford Rd GP | Woodfield Way GZ | 415 | 413 | -2 |
| 221 EB | Hobart Corner GG | Nightingale Road BD | 434 | 452 | 18 |
| 221 WB | Nightingale Road BK | Hobart Corner GF | 468 | 531 | 63 |
| 232 EB | Alexandra Road CW | Wood Green Station D | 1507 | 1568 | 61 |
| 232 WB | Wood Green Station H | Alexandra Road CU | 1448 | 1498 | 50 |
| 299 NB | Woodfield Way GD | Broomfield Lane N | 367 | 399 | 32 |
| 299 SB | Broomfield Lane S | Woodfield Way GZ | 547 | 533 | -14 |
| 329 NB | Haringey Civic Centre BP | North Circular Road L | 736 | 697 | -39 |
| 329 SB | North Circular Road M | Haringey Civic Centre BY | 644 | 613 | -31 |
| 382 NB | New Southgate Station J | Betstyle Circus D | 387 | 384 | -3 |
| 382 SB | Betstyle Road S | New Southgate Station K | 376 | 375 | -1 |
| W4 NB | Wood Green Bus Garage C | Beale Close E | 436 | 424 | -12 |
| W4 SB | Pasteur Gardens | Wood Green Bus Garage D | 667 | 654 | -13 |





Post-scheme Monitoring

Bus Route Journey Time Results - PM peak

| Bus Route | From | То | Pre-scheme Bus Journey Time (s) | Post-scheme Bus Journey Time (s) | Change in Bus Journey Time (s) |
|-----------|--------------------------|---------------------------|---------------------------------------|--|--------------------------------------|
| 34 EB | Telford Rd GP | Green Lanes P | 528 | 457 | -71 |
| 34 WB | Green Lanes V | Arnos Grove Swimming Pool | 573 | 510 | -63 |
| 102 NB | Woodfield Way GD | Green Lanes P | 927 | 889 | -38 |
| 102 SB | Green Lanes V | Woodfield Way GZ | 695 | 660 | -35 |
| 121 NB | Haringey Civic Centre BP | North Circular Road L | 927 | 823 | -104 |
| 121 SB | North Circular Road M | Haringey Civic Centre BY | 590 | 550 | -40 |
| 141 NB | Haringey Civic Centre BP | Tottenhall Road T | 709 | 601 | -108 |
| 141 SB | Tottenhall Road W | Haringey Civic Centre BY | 442 | 410 | -32 |
| 184 NB | Woodfield Way GD | Arnos Grove Swimming Pool | 630 | 577 | -53 |
| 184 SB | Telford Rd GP | Woodfield Way GZ | 459 | 418 | -41 |
| 221 EB | Hobart Corner GG | Nightingale Road BD | 446 | 452 | 6 |
| 221 WB | Nightingale Road BK | Hobart Corner GF | 489 | 530 | 41 |
| 232 EB | Alexandra Road CW | Wood Green Station D | 1734 | 1748 | 14 |
| 232 WB | Wood Green Station H | Alexandra Road CU | 1608 | 1457 | -151 |
| 299 NB | Woodfield Way GD | Broomfield Lane N | 547 | 529 | -18 |
| 299 SB | Broomfield Lane S | Woodfield Way GZ | 467 | 458 | -9 |
| 329 NB | Haringey Civic Centre BP | North Circular Road L | 996 | 898 | -98 |
| 329 SB | North Circular Road M | Haringey Civic Centre BY | 626 | 590 | -36 |
| 382 NB | New Southgate Station J | Betstyle Circus D | 415 | 391 | -24 |
| 382 SB | Betstyle Road S | New Southgate Station K | 413 | 387 | -26 |
| W4 NB | Wood Green Bus Garage C | Beale Close E | 617 | 530 | -87 |
| W4 SB | Pasteur Gardens | Wood Green Bus Garage D | 650 | 590 | -60 |





Post-scheme Monitoring

Bus Journey Time Analysis – 184 NB AM peak

| Bus Ro | Journey Time (s) | | | |
|----------------------|---------------------------|------------|-------------|------------|
| From | То | Pre-scheme | Post-scheme | Difference |
| Woodfield Way | Bounds Green Station | 106 | 133 | 27 |
| Bounds Green Station | York Road | 48 | 61 | 13 |
| York Road | Bowes Road | 56 | 70 | 14 |
| Bowes Road | Warwick Road | 96 | 101 | 5 |
| Warwick Road | Arnos Grove Swimming Pool | 117 | 132 | 15 |
| | 423 | 497 | 74 | |

• The data for the 184 northbound route indicates that the delay for this route is spread across the study area, in the AM peak.





Post-scheme Monitoring

Bus Journey Time Analysis – 221 WB AM peak

| Bus Ro | Journey Time (s) | | | |
|----------------------|----------------------|------------|-------------|------------|
| From | То | Pre-scheme | Post-scheme | Difference |
| Nightingale Road | Palace Road | 129 | 194 | 65 |
| Palace Road | Bounds Green Station | 118 | 121 | 3 |
| Bounds Green Station | Warwick Road | 44 | 39 | -5 |
| Warwick Road | Cline Road | 84 | 75 | -9 |
| Cline Road | Hobart Corner | 93 | 102 | 9 |
| Total | | 468 | 531 | 63 |

 The data for the 221 westbound route indicates that the delay for this route is focussed on the section from Nightingale Road to Palace Road during the AM peak.





Post-scheme Monitoring

Bus Journey Time Analysis – 232 EB AM peak

| Bus Ro | Journey Time (s) | | | |
|-----------------------|-----------------------|------------------------|------|------------|
| From | То | Pre-scheme Post-scheme | | Difference |
| Alexandra Road | Bounds Green Road | 91 | 115 | 24 |
| Bounds Green Road | Hobart Corner | 37 | 35 | -2 |
| Hobart Corner | Lower Park Road | 30 | 29 | -1 |
| Lower Park Road | Whitmore Close | 42 | 37 | -5 |
| Whitmore Close | New Southgate Station | 41 | 32 | -9 |
| New Southgate Station | Betstyle Road | 219 | 229 | 10 |
| Betstyle Road | Arnos Grove Station | 100 | 111 | 11 |
| Arnos Grove Station | Telford Road | 191 | 227 | 36 |
| Telford Road | Brownlow Road | 62 | 62 | 0 |
| Brownlow Road | Pymmes Road | 93 | 74 | -19 |
| Pymmes Road | Tottenhall Road | 146 | 175 | 29 |
| Tottenhall Road | Berkshire Gardens | 76 | 66 | -10 |
| Berkshire Gardens | Arcadian Gardens | 52 | 47 | -5 |
| Arcadian Gardens | Nightingale Road | 86 | 81 | -5 |
| Nightingale Road | Canning Crescent | 46 | 49 | 3 |
| Canning Crescent | Haringey Civic Centre | 52 | 55 | 3 |
| Haringey Civic Centre | Wood Green Station | 143 | 144 | 1 |
| | Total | | 1568 | 61 |

- The data for the 232 eastbound route, in the AM peak, suggests the journey time differences fluctuate through the study.
- The key increases are from Alexandra Road to Bounds Green Road, Arnos Grove Station to Telford Road and Pymmes Road to Tottenhall Road.





Post-scheme Monitoring

Bus Journey Time Analysis - Conclusions

- Overall, bus journey times have generally improved, with around 60% in the AM and 85% in the PM showing a reduction in bus journey times (i.e. routes are quicker compared to before the scheme was implemented and pre-COVID conditions). This is likely to be caused by reductions in traffic on some of the bus route corridors.
- All routes northbound on Brownlow Road have increased by some degree, with the worst affected being the 184 northbound in the AM peak.
- The increase for the 221 westbound in the AM peak is mainly a result of delays experienced between the Nightingale Road and Palace Road stops.
- The increase for the 232 eastbound in the AM peak correlates to the increase in traffic on Bowes Road, east of Telford Road, with the main source of delay between the New Southgate Station and Telford Road.







Post-scheme Monitoring

Pedestrian Assessment

- The volume of pedestrians has been compared before and after the scheme was implemented.
- Pedestrian flows have been observed from video surveys for a 12hr period for three key locations within the study area:
 - Warwick Road
 - Brownlow Road
 - Palmerston Road
- As with the traffic surveys, the surveys for pedestrian and cycle volumes could potentially be affected by the COVID pandemic, with people changing their travel patterns, for example many people started working from home during the pandemic and continue to do so.





Post-scheme Monitoring

Pedestrian Flows

| Ref | Street | Pre-scheme 12hr Pedestrian flows | Post-scheme 12hr Pedestrian flows | Difference | % Diff |
|-----|-----------------|-------------------------------------|--------------------------------------|------------|--------|
| 1 | Warwick Road | 1156 | 1458 | 302 | 26% |
| 2 | Brownlow Road | 1287 | 1489 | 202 | 16% |
| 3 | Palmerston Road | 701 | 638 | -63 | -9% |

• Across the three surveyed sites, there is a reported increase in pedestrian activity at 2 of the 3 the sites, equating to an average 14% increase in pedestrian activity across the surveyed sites.





Post-scheme Monitoring

QN Local Road Cycle Counts - 24hr

| Area | Ref | ATC Location | Pre-scheme 24hr cycle flows (veh) | Post-scheme 24hr cycle flows (veh) | Difference |
|-------------------------|-----|--------------------|---|--|------------|
| | 1 | Highworth Road | 8 | 16 | 8 |
| | 2 | Warwick Road | 16 | 30 | 14 |
| | 3 | Natal Road | 11 | 21 | 11 |
| | 4 | York Road | 3 | 64 | 61 |
| | 5 | Maidstone Road | 1 | 83 | 81 |
| | 6 | Palmerston Road | 193 | 237 | 45 |
| S | 7 | Truro Road | 41 | 21 | -20 |
| oad | 8 | Sidney Road | 26 | 5 | -21 |
| <u>R</u> | 9 | Myddleton Road | 110 | 86 | -24 |
| QN Local Roads | 10 | Belsize Avenue | 19 | 32 | 13 |
| Z Z | 11 | Lascotts Road | 39 | 28 | -12 |
| O | 12 | Melbourne Avenue | 23 | 24 | 1 |
| | 13 | Spencer Avenue | 25 | 31 | 6 |
| | 14 | Sidney Avenue | 19 | 20 | 1 |
| | 15 | Kelvin Avenue | 33 | 26 | -7 |
| | 16 | Nightingale Road | 47 | 44 | -4 |
| | 17 | Marquis Road | 17 | 11 | -6 |
| | 18 | Tewkesbury Terrace | 45 | 34 | -11 |
| _ sp | 19 | Palmers Road | 8 | 65 | 57 |
| External Local Roads | 20 | Rhys Avenue | 10 | 3 | -7 |
| call | 21 | Woodfield Way | 36 | 44 | 7 |
| Ē Ē | 22 | Wroxham Gardens | 28 | 6 | -22 |

- The results show an overall increase in cycle numbers of around 20% on the surveyed local roads within the Quieter Neighbourhood.
- The results for the local roads outside the Quieter Neighbourhood show a significant increase on Palmers Road, with small reductions on two of the sites and a larger reduction on Wroxham Road.





Post-scheme Monitoring

Strategic/Distributor Road Cycle Counts - 24hr

| Area | Ref | ATC Location | Pre-scheme 24hr cycle flows (veh) | Post-scheme 24hr cycle flows (veh) | Difference |
|-----------------------|-----|-------------------|---|--|------------|
| N N | 28 | Brownlow Road | 203 | 173 | -29 |
| ary QN | 29 | A406 Bowes Road* | n/a | n/a | n/a |
| Boundary to the QN | 30 | Bounds Green Road | 129 | 79 | -51 |
| Bo to | 31 | Green Lanes * | 316 | n/a | n/a |
| | 32 | A1110 Bowes Road | 76 | 66 | -11 |
| 논 | 33 | Durnsford Road | 195 | 176 | -19 |
| Wider network | 34 | Wolves Lane | 70 | 62 | -8 |
| er n | 35 | Wilmer Way | 27 | 61 | 34 |
| Wid | 36 | Powys Lane | 135 | 223 | 88 |
| | 37 | Station Road | 88 | 96 | 8 |

^{*} data not available

- There has been a decrease in cycle numbers of around 15% on Brownlow Road that runs through the Quieter Neighbourhood.
- The only boundary road where before and after data is available is Bounds Green Road which has seen a reduction of around 40%. Reductions on boundary roads as well as Brownlow Road are likely indications that cyclists are choosing to reassign to the quieter roads within the Quieter Neighbourhood, which have seen increases, rather than stay on roads with higher volumes of traffic.
- The results for the wider network indicate an overall increase in cycle numbers of around 16% as a result of increases on with Wilmer Way and Powys Lane.







Post-scheme Monitoring

Data Collection Dates

| Character | Baseline data | | Post implementation | | |
|-------------------|---------------|------------|---------------------|------------|--|
| Street | From | То | From | То | |
| Palmers Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Bowes Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Highworth Road | 31/07/2020 | 06/08/2020 | 16/09/2021 | 28/09/2021 | |
| Warwick Road | 17/07/2020 | 23/07/2020 | 16/09/2021 | 28/09/2021 | |
| Natal Road | 20/07/2020 | 26/07/2020 | 16/09/2021 | 28/09/2021 | |
| Brownlow Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| York Road | 23/07/2020 | 29/07/2020 | 16/09/2021 | 28/09/2021 | |
| Maidstone Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Bounds Green Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Rhys Ave | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Durnsford Road | 21/07/2020 | 27/07/2020 | 16/09/2021 | 28/09/2021 | |
| Woodfield Way | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Palmerston Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Green Lanes | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Wolves Lane | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Sidney Ave | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Melbourne Ave | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Kelvin Ave | 19/07/2020 | 25/07/2020 | 16/09/2021 | 28/09/2021 | |
| Belsize Ave | 23/07/2020 | 29/07/2020 | 16/09/2021 | 28/09/2021 | |
| Spencer Ave | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Lascotts Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Marquis Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Myddleton Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Sydney Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Truro Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Nightingale Road | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Tewkesbury Tce | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Wroxham Gardens | 18/07/2020 | 24/07/2020 | 16/09/2021 | 28/09/2021 | |
| Station Road | 21/03/2019 | 27/03/2019 | 16/09/2021 | 28/09/2021 | |
| Wilmer Way | 04/06/2019 | 10/06/2019 | 16/09/2021 | 28/09/2021 | |
| Powys Lane | 21/03/2019 | 27/03/2019 | 16/09/2021 | 28/09/2021 | |
| Grenoble Gardens | 14/01/2016 | 20/01/2016 | 16/09/2021 | 28/09/2021 | |
| Princes Ave | N, | /A | 16/09/2021 | 28/09/2021 | |
| Tottenhall Road | N, | /A | 16/09/2021 | 28/09/2021 | |
| Upsdell Ave | N, | /A | 16/09/2021 | 28/09/2021 | |
| Berkshire Gardens | 14/01/2016 | 20/01/2016 | 16/09/2021 | 28/09/2021 | |

• The table provides the survey dates for all surveys analysed.





Post-scheme Monitoring

Appendix - Sites 23-27

- ATC sites 23-27 are separate from the main analysis as no 2020 (pre-scheme data) is available to conduct the same analysis as the other sites.
- For Grenoble Gardens and Berkshire Gardens historic survey data from January 2016 has been used to compare against the 2021 survey. The data presented shows a comparison of the surveyed flows for Grenoble Gardens and Berkshire Gardens, both of which show a slight reduction in flows.

| Period | Site | Pre-scheme survey | Post-scheme survey | Difference | % Difference |
|---------|-----------------------|----------------------|--------------------|------------|--------------|
| 24 hour | 25. Grenoble Gardens | 1906 | 1845 | -61 | -3% |
| | 27. Berkshire Gardens | 1838 | 1683 | -155 | -8% |

• No historic data is available for Princes Avenue, Tottenhall Road or Upsdell Avenue. However, the post scheme data for these locations has been provided for information and compared to other local roads within the study area, the traffic volumes on these roads appear consistent with other local residential roads.

| Period | Site | Post-scheme survey |
|--------|---------------------|--------------------|
| | 23. Princes Avenue | 971 |
| 24hour | 24. Tottenhall Road | 1351 |
| | 26. Upsdell Avenue | 1551 |





Post-scheme Monitoring

Appendix - Sites 23-27

• The 12-hour, AM Peak hour and PM peak hour flows for sites 23-27 are shown in the tables below.

| Period | Site | Pre-scheme survey | Post-scheme survey | Difference | % Difference |
|----------|-----------------------|-------------------|-----------------------|------------|--------------|
| 12 hour | 25. Grenoble Gardens | 1520 | 1386 | -134 | -9% |
| 12 nour | 27. Berkshire Gardens | 1434 | 1266 | -168 | -12% |
| ANA Dook | 25. Grenoble Gardens | 190 | 136 | -54 | -28% |
| AM Peak | 27. Berkshire Gardens | 185 | 144 | -41 | -22% |
| PM Peak | 25. Grenoble Gardens | 147 | 131 | -16 | -11% |
| | 27. Berkshire Gardens | 115 | 109 | -6 | -6% |

| Period | Site | Post-scheme survey |
|---------|---------------------|--------------------|
| | 23. Princes Avenue | 628 |
| 12 hour | 24. Tottenhall Road | 916 |
| | 26. Upsdell Avenue | 1151 |
| | 23. Princes Avenue | 47 |
| AM Peak | 24. Tottenhall Road | 86 |
| | 26. Upsdell Avenue | 104 |
| | 23. Princes Avenue | 65 |
| PM Peak | 24. Tottenhall Road | 77 |
| | 26. Upsdell Avenue | 90 |





Post-scheme Monitoring

Appendix - Sensitivity Test

- The traffic flow data presented in the main section of the report reflects the surveyed vehicle volumes and does not consider the impact that COVID may have had on traffic flows in the area.
- To provide an estimate of the potential impact of the scheme, if the COVID pandemic had not happened, a sensitivity test has been undertaken, with a summary provided on the following slides.
- This sensitivity test applies a factor to the flows based on pre-COVID (2019) traffic conditions. It should be noted that travel patterns have changed as a result of COVID with, for example, more people working from home, and this is likely to continue to some extent going forward, so traffic conditions are likely to be different in the future. Therefore the assessment in the main body of the report, which is based on actual flows is considered robust, with the sensitivity test an indication of what could happen in the future.
- Enfield will continue to monitor traffic levels across the area to understand future travel patterns and associated impacts.





Post-scheme Monitoring

Appendix - Sensitivity Test - COVID Factors

- A factor has been calculated to apply to surveyed traffic flows due to COVID. This factor has been calculated using 'Control sites' away from the study area, which are unlikely to be impacted by the Quieter Neighbourhood scheme, but will show the impacts COVID has had on traffic flows. The three control sites are:
 - Windmill Hill
 - Southbury Road
 - Lancaster Road
- Week long surveys have been undertaken in March 2019, July 2020 and September 2021 at these locations, with the latter two dates being the same time periods as the traffic surveys for the Bowes Quieter Neighbourhood area and surrounding roads. By understanding the difference in traffic flows at these sites, compared to 2019 (Pre-COVID) a factor can be applied to the 2020 and 2021 data for the Bowes Quieter Neighbourhood area and surrounding roads.





Post-scheme Monitoring

Appendix - Sensitivity Test - COVID Factors

- Survey data used to inform this study has been collected from two different months of the year. The pre-scheme data was collected in July 2020 and the post-scheme data was collected in September 2021. Therefore an annualisation figure has also been applied to negate any seasonal variations in traffic flow.
- An ATC survey site on the A406-Pinkham Way continually records data, so the annualisation factor has been applied based on 2019 pre-COVID surveys at this site and a factor produced for the relevant months for the 2020 (July) and 2021 (September) surveys.
- As a result the factor applied to the July 2020 surveys is 5%, to take account of COVID and seasonal variations, and the equivalent value for the September 2021 surveys is 3%.
- The following slides provide a comparison between the factored pre-scheme and factored postscheme traffic flows.
- The data is presented for the following time periods.
 - 24-hour weekday period
 - Weekday AM peak hour
 - Weekday PM peak hour





Post-scheme Monitoring

Local Road Factored Traffic Volumes – 24hrs

| Area | Ref | ATC Location | Pre-scheme 24hr vehicle flows (veh) | Post-scheme 24hr vehicle flows (veh) | Difference | % Difference |
|-------------------------|-----|--------------------|---|--|-----------------|---------------|
| | 1 | Highworth Road | 500 to 1000 | 500 to 1000 | 0 to 500 | 10% to 20% |
| | 2 | Warwick Road | 2000 to 3000 | 1000 to 2000 | -1000 to -500 | -40% to -30% |
| | 3 | Natal Road | 0 to 500 | 0 to 500 | 0 to 500 | 0% to 10% |
| | 4 | York Road | 2000 to 3000 | 0 to 500 | -2000 to -1000 | -100% to -90% |
| | 5 | Maidstone Road | 1000 to 2000 | 0 to 500 | -1000 to -500 | -90% to -80% |
| | 6 | Palmerston Road | 3000 to 4000 | 1000 to 2000 | -3000 to - 2000 | -70% to -60% |
| ι ο | 7 | Truro Road | 3000 to 4000 | 3000 to 4000 | 0 to 500 | 10% to 20% |
| oad | 8 | Sidney Road | 500 to 1000 | 500 to 1000 | -500 to 0 | -10% to 0% |
| E R | 9 | Myddleton Road | 2000 to 3000 | 2000 to 3000 | 0 to 500 | 0% to 10% |
| QN Local Roads | 10 | Belsize Avenue | 1000 to 2000 | 1000 to 2000 | -500 to 0 | -20% to -10% |
| Z | 11 | Lascotts Road | 1000 to 2000 | 500 to 1000 | -500 to 0 | -20% to -10% |
| 12 13 | 12 | Melbourne Avenue | 500 to 1000 | 500 to 1000 | -500 to 0 | -20% to -10% |
| | 13 | Spencer Avenue | 500 to 1000 | 1000 to 2000 | 500 to 1000 | 100%+ |
| | 14 | Sidney Avenue | 500 to 1000 | 0 to 500 | -500 to 0 | -20% to -10% |
| | 15 | Kelvin Avenue | 1000 to 2000 | 1000 to 2000 | -500 to 0 | -30% to -20% |
| | 16 | Nightingale Road | 2000 to 3000 | 3000 to 4000 | 500 to 1000 | 20% to 30% |
| | 17 | Marquis Road | 0 to 500 | 0 to 500 | -500 to 0 | -10% to 0% |
| | 18 | Tewkesbury Terrace | 0 to 500 | 0 to 500 | -500 to 0 | -30% to -20% |
| _ sp | 19 | Palmers Road | 2000 to 3000 | 3000 to 4000 | 1000 to 2000 | 30% to 40% |
| External -ocal Roads | 20 | Rhys Avenue | 0 to 500 | 0 to 500 | 0 to 500 | 100%+ |
| xte | 21 | Woodfield Way | 1000 to 2000 | 1000 to 2000 | 500 to 1000 | 50% to 60% |
| Lo | 22 | Wroxham Gardens | 1000 to 2000 | 1000 to 2000 | -500 to 0 | -30% to -20% |

- When the factors have been applied, overall there is a reduction in traffic on the local roads within the Quieter Neighbourhood of 15-20% on average.
- Some roads continue to see an increase, such as Spencer Avenue, Myddleton Road, Nightingale Road and Truro Road – As previously stated, mitigation to reduce traffic on these roads is proposed as part of the Bounds Green Low Traffic Neighbourhood.
- Highworth Road and Natal Road also see increases but these are low.
- 3 of the 4 sites surveyed on local roads outside the Quieter Neighbourhood see an increase in traffic. Of these, mitigation as part of Bounds Green Low Traffic Neighbourhood is included for Rhys Avenue and Woodfield Way, with Enfield Council investigating mitigation measures for Palmers Road.





Post-scheme Monitoring

Strategic/Distributor Road Factored Traffic Volumes – 24hrs

| Area | Ref | ATC Location | Pre-scheme 24hr vehicle flows (veh) | Post-scheme 24hr vehicle flows (veh) | Difference | % Difference |
|-----------------------|-----|-------------------|---|--|-----------------|--------------|
| NO | 28 | Brownlow Road | 13000 to 14000 | 14000 to 15000 | 0 to 500 | 0% to 10% |
| ary QN | 29 | A406 Bowes Road | 75000 to 76000 | 75000 to 76000 | -500 to 0 | -10% to 0% |
| Boundary to the QN | 30 | Bounds Green Road | 22000 to 23000 | 19000 to 20000 | -2000 to -1000 | -20% to -10% |
| Bo ₁ | 31 | Green Lanes | 16000 to 17000 | 10000 to 11000 | -6000 to - 5000 | -40% to -30% |
| ¥ | 32 | A1110 Bowes Road | 13000 to 14000 | 14000 to 15000 | 1000 to 2000 | 0% to 10% |
| wor | 33 | Durnsford Road | 13000 to 14000 | 13000 to 14000 | 0 to 500 | 0% to 10% |
| . net | 34 | Wolves Lane | 9000 to 10000 | 11000 to 12000 | 1000 to 2000 | 10% to 20% |
| Wider network | 35 | Wilmer Way | 13000 to 14000 | 11000 to 12000 | -2000 to -1000 | -20% to -10% |
| \$ | 36 | Powys Lane | 8000 to 9000 | 8000 to 9000 | -500 to 0 | -10% to 0% |

- Brownlow Road, which runs north/south through the Quieter Neighbourhood, sees a negligible change, once the factors have been applied.
- Based on the 3 sites surveyed on the strategic/distributor roads on the boundary of the Quieter Neighbourhood the average decrease is 5-10%.
- Based on the 5 sites surveyed on strategic roads on the wider network, the average increase in traffic is 0-5%.





Post-scheme Monitoring

Local Road Factored Traffic Volumes – AM Peak

| Area | Ref | ATC Location | Pre-scheme AM vehicle flows (veh) | Post-scheme AM vehicle flows (veh) | Difference | % Difference |
|-------------------------|-----|--------------------|---|--|-------------|---------------|
| | 1 | Highworth Road | 0 to 50 | 50 to 100 | 50 to 100 | 100%+ |
| | 2 | Warwick Road | 50 to 100 | 100 to 200 | 50 to 100 | 100%+ |
| | 3 | Natal Road | 0 to 50 | 0 to 50 | 0 to 50 | 60% to 70% |
| | 4 | York Road | 100 to 200 | 0 to 50 | -100 to -50 | -100% to -90% |
| | 5 | Maidstone Road | 50 to 100 | 0 to 50 | -50 to 0 | -90% to -80% |
| | 6 | Palmerston Road | 100 to 200 | 50 to 100 | -100 to -50 | -50% to -40% |
| ۲۵. | 7 | Truro Road | 200 to 300 | 300 to 400 | 100 to 200 | 40% to 50% |
| oad | 8 | Sidney Road | 0 to 50 | 50 to 100 | 0 to 50 | 50% to 60% |
| <u>8</u> | 9 | Myddleton Road | 100 to 200 | 100 to 200 | 50 to 100 | 60% to 70% |
| QN Local Roads | 10 | Belsize Avenue | 50 to 100 | 50 to 100 | -50 to 0 | -10% to 0% |
| Z Z | 11 | Lascotts Road | 0 to 50 | 0 to 50 | -50 to 0 | -20% to -10% |
| O | 12 | Melbourne Avenue | 0 to 50 | 0 to 50 | -50 to 0 | -40% to -30% |
| | 13 | Spencer Avenue | 0 to 50 | 50 to 100 | 0 to 50 | 100%+ |
| 14 | 14 | Sidney Avenue | 0 to 50 | 0 to 50 | -50 to 0 | -20% to -10% |
| | 15 | Kelvin Avenue | 50 to 100 | 50 to 100 | -50 to 0 | -10% to 0% |
| | 16 | Nightingale Road | 100 to 200 | 200 to 300 | 0 to 50 | 20% to 30% |
| | 17 | Marquis Road | 0 to 50 | 0 to 50 | 0 to 50 | 30% to 40% |
| | 18 | Tewkesbury Terrace | 0 to 50 | 0 to 50 | -50 to 0 | -20% to -10% |
| _ sp | 19 | Palmers Road | 100 to 200 | 300 to 400 | 200 to 300 | 100%+ |
| External Local Roads | 20 | Rhys Avenue | 0 to 50 | 0 to 50 | 0 to 50 | 100%+ |
| xte | 21 | Woodfield Way | 0 to 50 | 100 to 200 | 100 to 200 | 100%+ |
| Lo | 22 | Wroxham Gardens | 50 to 100 | 100 to 200 | 0 to 50 | 50% to 60% |

- In the AM peak hour, on the local roads within the Quieter Neighbourhood there is an average increase of 10-20% on the surveyed sites. As with the main assessment, this is primarily due to increases on the roads to the west of Green Lanes, such as Truro Road, Myddleton Road, Spencer Avenue, Nightingale Road, Sidney Road and Marquis Road.
- Highworth Road and Warwick Road also see increased but predicted post scheme flows remain relatively low
- On the external local roads all the sites have seen an increase and to a greater degree than 24-hour surveys but these roads, along with those west of Green Lanes listed above, are likely to see a reduction in traffic to below pre-schemes levels, following the proposed Bounds Green Liveable Neighbourhood, with Enfield Council investigating mitigation measures for Palmers Road.





Post-scheme Monitoring

Strategic/Distributor Factored Total Traffic Volumes - AM peak

| Area | Ref | ATC Location | Pre-scheme AM vehicle flows (veh) | Post-scheme AM vehicle flows (veh) | Difference | % Difference |
|-----------------------|-----|-------------------|---|--|--------------|--------------|
| N | 28 | Brownlow Road | 800 to 900 | 900 to 1000 | 50 to 100 | 0% to 10% |
| ary QN | 29 | A406 Bowes Road | 3600 to 3700 | 3600 to 3700 | -50 to 0 | -10% to 0% |
| Boundary to the QN | 30 | Bounds Green Road | 1300 to 1400 | 1200 to 1300 | -200 to -100 | -20% to -10% |
| Bo ₁ | 31 | Green Lanes | 900 to 1000 | 400 to 500 | -500 to -400 | -50% to -40% |
| × | 32 | A1110 Bowes Road | 600 to 700 | 800 to 900 | 100 to 200 | 20% to 30% |
| network | 33 | Durnsford Road | 800 to 900 | 1000 to 1100 | 200 to 300 | 20% to 30% |
| . net | 34 | Wolves Lane | 400 to 500 | 800 to 900 | 400 to 500 | 90% to 100% |
| Wider | 35 | Wilmer Way | 800 to 900 | 600 to 700 | -200 to -100 | -30% to -20% |
| \$ | 36 | Powys Lane | 500 to 600 | 400 to 500 | -100 to -50 | -20% to -10% |

- In the AM peak Brownlow Road increases by 5-10%, when the factors are applied.
- Based on the 3 sites surveyed on strategic/ distributor roads on the boundary of the Quieter Neighbourhood the average decrease in traffic is approximately 10%.
- Based on the 5 sites surveyed on strategic/ distributor roads on the wider network, the average increase in traffic is 15-20%.





Post-scheme Monitoring

Local Road Factored Traffic Volumes - PM Peak

| Area | Ref | ATC Location | Pre-scheme PM vehicle flows (veh) | Post-scheme PM vehicle flows (veh) | Difference | % Difference |
|-------------------------|-----|--------------------|---|--|--------------|---------------|
| | 1 | Highworth Road | 50 to 100 | 0 to 50 | -50 to 0 | -30% to -20% |
| | 2 | Warwick Road | 200 to 300 | 100 to 200 | -200 to -100 | -60% to -50% |
| | 3 | Natal Road | 0 to 50 | 0 to 50 | 0 to 50 | 0% to 10% |
| | 4 | York Road | 100 to 200 | 0 to 50 | -200 to -100 | -100% to -90% |
| | 5 | Maidstone Road | 100 to 200 | 0 to 50 | -100 to -50 | -90% to -80% |
| | 6 | Palmerston Road | 300 to 400 | 100 to 200 | -200 to -100 | -70% to -60% |
| | 7 | Truro Road | 200 to 300 | 200 to 300 | 0 to 50 | 10% to 20% |
| ads | 8 | Sidney Road | 50 to 100 | 0 to 50 | -50 to 0 | -30% to -20% |
| QN Local Roads | 9 | Myddleton Road | 100 to 200 | 100 to 200 | -50 to 0 | -20% to -10% |
| ပို | 10 | Belsize Avenue | 50 to 100 | 50 to 100 | -50 to 0 | -30% to -20% |
| Z Z | 11 | Lascotts Road | 50 to 100 | 50 to 100 | -50 to 0 | -30% to -20% |
| O | 12 | Melbourne Avenue | 0 to 50 | 0 to 50 | -50 to 0 | -30% to -20% |
| | 13 | Spencer Avenue | 50 to 100 | 50 to 100 | 0 to 50 | 90% to 100% |
| | 14 | Sidney Avenue | 0 to 50 | 0 to 50 | -50 to 0 | -10% to 0% |
| | 15 | Kelvin Avenue | 100 to 200 | 100 to 200 | -50 to 0 | -20% to -10% |
| | 16 | Nightingale Road | 200 to 300 | 200 to 300 | 0 to 50 | 20% to 30% |
| | 17 | Marquis Road | 0 to 50 | 0 to 50 | 0 to 50 | 20% to 30% |
| | 18 | Tewkesbury Terrace | 0 to 50 | 0 to 50 | -50 to 0 | -20% to -10% |
| _ sp | 19 | Palmers Road | 200 to 300 | 200 to 300 | 50 to 100 | 20% to 30% |
| External Local Roads | 20 | Rhys Avenue | 0 to 50 | 0 to 50 | 0 to 50 | 100% + |
| call | 21 | Woodfield Way | 100 to 200 | 100 to 200 | -50 to 0 | -10% to 0% |
| Ē Ē | 22 | Wroxham Gardens | 200 to 300 | 100 to 200 | -100 to -50 | -50% to -40% |

- In the PM peak the average reduction in traffic on local roads within the Quieter Neighbourhood is approximately 25-30%, based on the surveyed sites.
- On the external local roads, traffic flows remain higher than the pre-scheme surveys on 3 of the 4 sites, with mitigation proposed to improve this.





Post-scheme Monitoring

Strategic/Distributor Road Factored Traffic Volumes – PM peak

| Area | Ref | ATC Location | Pre-scheme PM vehicle flows (veh) | Post-scheme PM vehicle flows (veh) | Difference | % Difference |
|-----------------------|-----|-------------------|---|--|--------------|--------------|
| N O | 28 | Brownlow Road | 900 to 1000 | 800 to 900 | -50 to 0 | -10% to 0% |
| ary QN | 29 | A406 Bowes Road | 4000 to 4100 | 3900 to 4000 | -100 to -50 | -10% to 0% |
| Boundary to the QN | 30 | Bounds Green Road | 1400 to 1500 | 1200 to 1300 | -300 to -200 | -20% to -10% |
| Bo | 31 | Green Lanes | 900 to 1000 | 400 to 500 | -500 to -400 | -50% to -40% |
| ~ | 32 | A1110 Bowes Road | 800 to 900 | 900 to 1000 | 50 to 100 | 0% to 10% |
| wor | 33 | Durnsford Road | 800 to 900 | 800 to 900 | -100 to -50 | -10% to 0% |
| net | 34 | Wolves Lane | 900 to 1000 | 1000 to 1100 | 100 to 200 | 10% to 20% |
| Wider network | 35 | Wilmer Way | 900 to 1000 | 700 to 800 | -200 to -100 | -20% to -10% |
| \$ | 36 | Powys Lane | 600 to 700 | 500 to 600 | -200 to -100 | -20% to -10% |

- In the PM Peak Brownlow Road has decreased by approximately 5% when the factored flows have been applied.
- The average reduction in traffic on the strategic/ distributor roads on the boundary of the Quieter Neighbourhood is 10-15%.
- The average decrease in traffic on the strategic/distributor roads on the wider network is predicted to be 0-5%.





Post-scheme Monitoring

Appendix - Sensitivity Test - Conclusions

- Analysis of the factored traffic data has shown that overall there has been a reduction in traffic on the local roads within the Quieter Neighbourhood.
- Some internal roads see increases including Highworth Road, Warwick Road (AM only), Natal Road,
 Truro Road, Sidney Road (AM only), Myddleton Road, Spencer Avenue, Nightingale Road and Marquis
 Road.
- The increases on roads such as Highworth Road, Natal Road, Sidney Road, Spencer Avenue, Nightingale Road and Marquis Road are, on average, less than an additional vehicle per minute and are not likely to be noticeable, or have a significant impact.
- Similar to the main assessment, mitigation as a result of the Bounds Green Low Traffic Neighbourhood scheme, will see local road traffic levels reduce to pre-COVID levels, where they have increased significantly under the sensitivity test, with Enfield Council investigating mitigation measures for Palmers Road.
- Increases reported on the strategic/borough distributor roads, are a result of the through traffic that was previously on the local roads reassigning onto the roads designed to accommodate higher volumes of traffic. This will continue to be monitored to establish whether traffic trends do start to increase which may cause congestion and/or journey times impacts on general traffic or buses.

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