



Islington School Streets Programme:

Grafton Primary School, Hungerford Primary School, William Tyndale Primary School, St Paul's Steiner Primary School and St John's Upper Holloway Primary School

Results from the 11-month monitoring



What are School Streets?

- A School Street Scheme is where a road with a school temporarily closes to become a pedestrian and cycle zone at the start and end of the school day.
- The temporary closures of roads outside schools helps to reduce congestion and pollution at the school gates as well as make it easier and safer for children to get to and from school.
- The council has implemented a number of School Street Schemes under experimental traffic orders and will be monitoring the benefits over an 18-month period.
- Currently there are 36 School Streets covering 37 Schools in Islington, of which 13 are permanent.





Aims of School Streets Programme:

- Improved air quality
- Reduced traffic on nearby roads
- Promotion of active travel modes amongst pupils, parents and school staff
- Social distancing measures outside the school



School Streets Programme Acceleration: Phase 2



- In September 2020, Islington Council rapidly accelerated the rollout of its pioneering School Streets programme.
- This programme formed part of the council's wider effort to create people-friendly streets, improve air quality, and facilitate social distancing in response to the coronavirus pandemic.
- Five School Streets, forming Phase 2 of School Streets Acceleration Programme, were implemented as an 18-month trials under an Experimental Traffic Order (ETO).

Schools included in Phase 2 of School Streets Programme Acceleration:

- Grafton Primary School
- Hungerford Primary School
- William Tyndale Primary School
- St Paul's Steiner Primary School
- St John's Upper Holloway

School Streets Zones: Phase 2





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Schools included in Phase 2:

- 1. Grafton Primary School
- 2. Hungerford Primary School
- 3. William Tyndale Primary School
- 4. St Paul's Steiner Primary School
- 5. St John's Upper Holloway

Programme Monitoring





- This 11-month monitoring report reflects a before and after assessment of the School Streets Programme Acceleration Phase 2 trial.
- During the School Street trials, the council continuously monitored key data points to evaluate the impact of the schemes over the 11-month period against three core objectives of the School Streets Programme:
 - Improved air quality
 - Reduced traffic on nearby roads
 - Promotion of active travel modes amongst pupils, parents and school staff
- The council collected the following data:
 - levels of nitrogen dioxide (NO₂) outside the schools to evaluate air quality
 - volumes and speeds of motorised traffic on the roads within the School Street zones and their vicinity
 - levels of cycling within the School Street zones
 - The findings of the monitoring will form part of evidence for decision making on whether to make the School Streets measures permanent.

Data Collection – Air Quality





- The air quality data presented in the report is monthly readings of nitrogen dioxide (NO₂) outside each school included in Phase 2.
- To measure pollution levels around Islington schools, the council placed diffusion tubes outside the entrance of each school across the borough in 2018. These tubes measure the air's concentration of nitrogen dioxide (NO₂), a toxic gas that can be very harmful to health. The tubes are replaced and analysed on a monthly basis. Research suggests that at roadside locations up to <u>80%</u> of the NO2 measured comes from road transport.
- NO2 readings for 2021 are provisional and final figures might change. This report includes analysis based on data that is available to this date (January – October 2021). Final data and analysis will be made publicly available in Annual Air Quality Status Update later this year.
- Whilst widely deployed to monitor air quality and provide comparison between multiple sites over long periods of time, the diffusion tube readings provide high-level air quality trends, rather than in-depth analysis. It is important to note that diffusion tube monitoring data can also be impacted by a range of outside factors, such as the season or changes in weather.
- The readings should be interpreted as a high-level assessment of air quality around the primary schools. The
 positive change in figures is likely to be influenced by other significant factors, such as Covid-19 restrictions,
 and wider people-friendly streets measures.
- The EU objective for NO₂ is below 40µg/m3. The objective value is annual, therefore single month readings reaching 40µg/m3 or above are not considered to be above the threshold, as this is applied for annual average reading.

Data Collection – Traffic





- The count data presented in this report is not traffic modelling, but actual observed traffic, comparing traffic flows in December 2020, before the implementation of the Phase 2 School Streets, in November 2021, 11 months after the scheme went live.
- Automatic Traffic Counts (ATCs) are used at the majority of sites in Phase 2 of the Programme's acceleration. They measure traffic volumes and speeds using two thin tubes that run across the street and are connected to a sensor. When wheels pass over the tubes, the pressure impact is interpreted by the sensor to identify the type of vehicle passing over, and the speed with which it passed. They are approximately 98% reliable.
- Key traffic monitoring dates are:
 - Baseline ("before") counts: 7 11 December 2020
 - School Streets Phase 2 implementation: 04 January 2021
 - 6-months ("interim") counts: 7 11 June 2021
 - 11-months ("after") counts: 15 19 November 2021
- The traffic figures have been normalised to account for the impacts of Covid-19 lockdowns. This process
 is explained in more detail in the next slide.

Data Normalisation





- Covid-19 caused significant disruption to our road network and travel behaviour. This has been taken into account during the analysis of our monitoring data. We recognise that these schemes are being delivered at a time when traffic is greatly disrupted due to lockdown restrictions that have varied since March 2020. As such, the monitoring results for certain metrics such as traffic volumes were normalised.
- Daily volumes of motorised traffic have been drawn from a range of 12 permanent traffic counters managed by Transport for London across Islington and used to establish monthly averages in 2019 and 2020.
- The percentage difference between the same month across the two different years has been used to adjust each set of counts to normalise for Covid-19 disruption in the months in which counts have been taken. The methodology is set out in greater detail in the next slide, and has been independently peer reviewed.
- Considering the months in which the School Streets Acceleration Phase 2 counts took place, in June 2021 (baseline counts), motorised traffic across the permanent counters in Islington was approximately 16.1% lower than in December 2019. In November 2021 (11 months counts), motorised traffic was approximately 5.9% lower than in November 2020. As such, the baseline and 11 months motorised traffic counts have been adjusted by a different amount.

Data Normalisation Methodology





- In order to account for the fact that there was less traffic on Islington streets from March 2020 onwards we have provided adjusted figures that provide an estimate for what the traffic would have been if there was no Covid-19 disruption. This allows us to analyse the impacts of the PFS area scheme rather than the impacts of Covid-19 on the traffic volumes.
- To calculate the percentage change the difference has then been taken between the two and divided by the normalised baseline volume to arrive at a normalised percentage change.
- To calculate the normalised percentage differences, the December 2020 traffic count volumes have been divided by 0.8389, and the November 2021 traffic counts by 0.9415 to give normalised volumes.

Worked example of normalisation:

| School Street times | Location | Baseline Observed - December 20 20 | Observed - November 2021 | Difference Observed (%) | Baseline Normalised – December 2020 | Normalised - November 2021 | Difference Normalised (%) |
|------------------------|--------------|---|--------------------------------|-------------------------------|--|----------------------------------|---------------------------------|
| 8 am to 9 am | Sable Street | 10 | 5 | -50% | 12 | 2 5 | -55% |
| 3 pm to 4 pm | Sable Street | 16 | 5 | -69% | 19 |) 5 | -72% |





1. Programme wide (Phase 2) monitoring results



Monthly Air Quality Results





- The graph below demonstrates monthly nitrogen dioxide trends across 5 sites between January 2020 and October 2021*. The trend reflects wider borough trends and seasonal variations, school holidays, as well Covid-19 pandemic restrictions pattern.
- Since the implementation of the School Streets in January 2021, the NO₂ levels peaked in December 2020, followed by a steady overall decrease from January to August 2021.



Nitrogen Dioxide (µg/m3) monthly readings January 2020 - October 2021

*Data not available for Hungerford & The Bridge Primary School from January to April 2021 and St John's Upper Holloway from July to October 2021.

Annual Air Quality Results



- The results in the graph below show that there has been a decrease of NO₂ levels in all schools included within the School Streets Programme Acceleration (Phase 2).
- On average, the NO₂ levels across all five in 2021 increased by 1% compared to 2020 and decreased by 23% compared to 2019. Slight increase in NO2 levels is generally expected to reflect the easing of Covid-19 travel restrictions.

Nitrogen Dioxide (µg/m3) annual average levels 2019-2021



Traffic Monitoring Results





Traffic volume:

- Motorised traffic has decreased in most of the School Street zones in both observed and normalised results, which is a positive outcome in line with the objectives of the trial.
- Overall, the traffic within the School Street zones reduced by 64% during morning restrictions, and by 63% during afternoon restrictions.

Traffic speed:

- The average percentage of vehicles going above the speed limit reduced across two School Streets, remained same as prior to implementation on two sites and slightly increased across one site during operational hours.
- Overall, the average speed across all sites remained the same across Phase 2 School Streets during their operational times.

Traffic on surrounding roads:

 Across the surrounding roads, all experienced decreases in traffic volumes, The total volumes of motorised traffic show a **decrease of 16%** which is a positive result in line with the objectives of the trial.

Active Travel Results





- Overall, cycling levels **increased by 23%** on School Street zones during the operational times.
- The greatest increase has been on William Tyndale Primary School Street zone, which has seen an increase of 93% of cycling levels during restriction times.
- The greatest decrease has been on St John's Upper Holloway School Street, which has seen cycling levels reduced by 39%.







2. Location specific monitoring results



Grafton Primary School



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- Air Quality: the annual readings of 2021 indicate the NO₂ (µg/m3) levels remained the same compared to 2020 and decreased by 30% compared to 2019.
- Traffic Volume: The traffic on Hercules Street reduced by 64% (-12 vehicles) during morning restrictions, and reduced by 44% (-13 vehicles) in the afternoon. The traffic volumes on Eburne Road east reduced by 85% (-46 vehicles) and reduced by 70%(-37 vehicles). The traffic also reduced by 78% (-53 vehicles) on Eburne Road west and reduced by 60% (-51 vehicles) respectively.
- Traffic Speed: The proportion of vehicles exceeding the speed limit on Eburne Road and on Hercules Street slightly increased by 3% during School Street operational times.
- Cycling levels: The cycling levels on Hercules Street and Eburne Road increased by 10% during School Street restriction times.



Hungerford Primary School



People-Friendly Streets



- Air Ouality: the annual readings of 2021 indicate a decrease in NO2 (µg/m3) levels by 23% compared to 2020 and **by 36%** compared to 2019.
- Traffic Volume: The traffic on Hungerford Road east reduced by 29% (-48 vehicles) during morning restrictions, and reduced by 38% (-66 vehicles) in the afternoon. The traffic volumes on Hungerford Road west reduced by 65% (-66 vehicles) and reduced by 66%(-81 vehicles) respectively.
- Traffic Speed: The proportion of vehicles exceeding the speed limit on Hungerford Road reduced by 3% during School Street operational times.
- Cycling levels: The cycling levels on Hungerford Road increased by 41% during School Street restriction times.



William Tyndale Primary School

- Air Quality: the annual readings of 2021 indicate an increase in NO2 (µg/m3) levels by 5% compared to 2020 and decreased by 16% compared to 2019.
- Traffic Volume: The traffic on Sable Street decreased by 55% (-7 vehicles) during morning restrictions, and decreased by 72% (-14 vehicles) in the afternoon.
- Traffic Speed: The proportion of vehicles exceeding the speed limit on Sable Street remained the same, with no speeding recorded during School Street operational times.
- Cycling levels: The cycling levels on Sable Street increased by 93% during School Street restriction times.



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St Paul Steiner Primary School

- Air Quality: the annual readings of 2021 indicate an increase in NO2 (µg/m3) levels by 12% compared to 2020 and decreased by 17% compared to 2019.
- Traffic Volume: The traffic on Marquess Road west reduced by 91% (-21 vehicles) during morning restrictions, and reduced by 85% (-18 vehicles) in the afternoon. The traffic volumes on Marquess Road northeast reduced by 68% (-9 vehicles) and reduced by 67%(-6 vehicles) respectively.
- Traffic Speed: The proportion of vehicles exceeding the speed limit on Marquess Road Street remained the same, with no speeding recorded during School Street operational times.
- Cycling levels: The cycling levels on Marquess Road increased by 29% during School Street restriction times.







St John's Upper Holloway

- Air Quality: the annual readings of 2021 indicate an increase in NO2 (µg/m3) levels by 14% compared to 2020 and decreased by 18% compared to 2019.
- Traffic Volume: The traffic across this School Street zone reduced by 85% (-134 vehicles) during morning restrictions, and reduced by 78% (-188 vehicles) in the afternoon.
- Traffic Speed: The proportion of vehicles exceeding the speed limit on Sable Street reduced by 1% during School Street operational times.
- Cycling levels: The cycling levels on Pemberton Gardens decreased by 39% during School Street restriction times.



Better places for everyone





Conclusions



This 11-month monitoring of the School Streets trials which were introduced in January 2021 show an overall positive change, and key findings are in line with the objectives of the trial.

Objective 1: Improved air quality

Monitoring results show improved air quality, as part of Islington's wider efforts, with nitrogen dioxide (NO_2) levels below the council's annual objective and in line with borough-wide trends

Objective 2: Reduced traffic on nearby roads

Monitoring results show:

• reduced traffic across School Street zone roads (overall down 63%)

Objective 3: Promotion of active travel modes amongst pupils, parents and school staff

Monitoring results show increase in cycling levels across School Street zone roads (overall up by 23%)



School Streets Phase 2 Trials Consultation





Take part in our consultation and tell us what you think about making these School Streets permanent.

Consultation will be open between Monday 21 February 2022 and Sunday 20 March 2022.

Complete a short online questionnaire by 11.59pm on 20 March 2022 at www.islington.gov.uk/SchoolStreetsConsultation

or contact us by email at SchoolStreetsConsultation@islington.gov.uk