

Appendix C. Low traffic neighbourhood case studies and best practice

C.1 Introduction

This section outlines best practice policy and case studies for the development and approach to low traffic neighbourhoods, types of interventions and where available results of implementation. The table of references provides a summary of sources and associated weblinks.

C.2 Research - best practice policies, strategies and academic papers

The table below summarises the policies and strategies reviewed to inform and develop the B&NES low traffic neighbourhood strategy. The review considered existing and developing low traffic or liveable neighbourhoods policies and guidance for: policy development and context and approaches and mechanisms for implementing. The review also consider supporting or accompanying policies (as relevant) regarding climate change and active travel.

Document	Authors	Summary	Source link
Low traffic neighbourhoods: an introduction for policy makers	London Cycling Campaign and Living Streets	An overview of what low traffic neighbourhoods are and the high-level potential benefits.	https://londonlivingstreets.files.wordpress.com/2018/09/lcc021-low-traffic-neighbourhoods-intro-v8.pdf
Low traffic neighbourhoods: A guide to low traffic neighbourhoods	London Cycling Campaign and Living Streets	The guide provides more information for officers, designers and others to understand some of the complexities, nuances and capabilities of these schemes in more detail.	https://londonlivingstreets.files.wordpress.com/2018/09/lcc021-low-traffic-neighbourhoods-detail-v9.pdf
Liveable Neighbourhoods guidance	Mayor of London & Transport for London	Sets out approach to deliver attractive, healthy, accessible and safe neighbourhoods for people, including policy context, technical process and requirements.	http://content.tfl.gov.uk/tfl-liveable-neighbourhood-guidance.pdf https://tfl.gov.uk/info-for/media/press-releases/2019/march/new-projects-to-receive-50-million-to-create-healthy-streets-across-london
Healthy Streets for London	Mayor of London & Transport for London	Sets out approach to decision making, including health considerations and discourage car use and to walk, cycle and use public transport more. Includes 10 health indicators	http://content.tfl.gov.uk/healthy-streets-for-london.pdf Toolkit - https://tfl.gov.uk/cdn/static/cms/documents/guide-to-the-healthy-streets-indicators.pdf Check for designers - https://tfl.gov.uk/cdn/static/cms/documents/healthy-streets-check-for-designers-2018.xlsx Survey - https://tfl.gov.uk/cdn/static/cms/documents/healthy-streets-surveys.pdf
Living Streets – Community Street Audits	Living Streets	Community Street Audits are a way to evaluate the quality of streets and spaces from the viewpoint of the people who use them, rather than those who manage them.	https://www.livingstreets.org.uk/products-and-services/projects/community-street-audits

Document	Authors	Summary	Source link
Reallocation road-space in response to Covid-19	DfT	Statutory guidance for local authorities – on changes to Traffic Management Act 2004. Has not been fully considered within the strategy, as this was emerging as the strategy was being finalised.	https://www.gov.uk/government/publications/reallocating-road-space-in-response-to-covid-19-statutory-guidance-for-local-authorities/traffic-management-act-2004-network-management-in-response-to-covid-19#reallocating-road-space-measures
Academic papers			
Research paper on impacts of active travel (London's in progress mini Holland programme)	Aldred, R., Croft, J., & Goodman, A. (2019)	Longitudinal study examining the impacts of the still in progress 'mini-Hollands programme' Findings suggest that programme interventions, while controversial, are having a measurable and early impact on active travel behaviour and perceptions of the local cycling environment.	Aldred, R., Croft, J., & Goodman, A. (2019) Impacts of an active travel intervention with a cycling focus in a suburban context: One-year findings from an evaluation of London's in-progress mini-Hollands programme Transportation Research Part A: Policy and Practice Vol 123, May 2019, Pg147-169 https://www.sciencedirect.com/science/article/pii/S0965856417314866
Research paper on disappearing traffic? the story so far.	Cairns, S. Atkins, S. and Goodwin, P.	Paper on research carried out on the impacts of reallocating road space from general traffic to improve conditions for pedestrians, cyclists and public transport. Examination of 70 cases studies to understand whether actual traffic displacement will be as drastic as predicted. Considers the potential for traffic evaporation.	Proceedings of the Institution of Civil Engineers. Municipal Engineer 151, March 2002, Issue 1, pages 13-22 (Paper 12772) https://nacto.org/wp-content/uploads/2015/04/disappearing_traffic_cairns.pdf
Research paper on impacts of motor vehicles on quality of life of residents	Hart & Parkhurst (2011)	Paper reports an original empirical study carried out in Bristol modelled on Donal Appleyard's study published in the book "Livable Streets" in 1981. The results confirm the findings of the original work. Higher levels of motor vehicle traffic were found to have considerable negative impacts on the social and physical environments whilst residents identify number of impacts on the psychological and practical aspects of quality of life. Paper further identifies policies measures and interventions that are capable of restoring streets to people, including reduced number of parking spaces, modal shift to active travel and "shared space", as well as 20mph speed limits.	Hart and Parkhurst (2011) Driven To Excess: Impacts of Motor Vehicles on the Quality of Life of Residents of Three Streets in Bristol UK World Transport, Policy & Practice Volume 17.2 June 2011 - http://www.eco-logica.co.uk/pdf/wtpp17.2.pdf

Document	Authors	Summary	Source link
Other sources			
Love London, Go Dutch	London Cycling Campaign	Key principles of improving cycle infrastructure: safety first, best practice, adaptability, easy passage, calm junctions, harmony with pedestrians and public transport, quality of life, commitment and engagement.	https://lcc.org.uk/pages/go-dutch
Climate Safe Streets: delivering zero carbon roads in London by 2020	London Cycling Campaign	Way people travel has to change, quickly. Climate emergency requires mass mode shift, as well as uptake of electric vehicles. <i>"Streets must become safer and more convenient for walking and cycling; bus travel must become cheaper, more reliable and more convenient; and people must have easy access to zero-carbon shared motor transport as an attractive alternative to car ownership".</i> Issue is not just about moving traffic, but it is also about parked vehicles. <i>'In the UK, the average car is in use for around 4% of the time, therefore shifting journeys out of private cars and into more sustainable modes of transport, provides opportunities to free up space currently used by parked cars for cycling and walking infrastructure, shared mobility options and public space improvements'</i>	https://s3.amazonaws.com/lcc_production_bucket/files/13596/original.pdf?1584617987
Institute for sensible transport – figure on hierarchy of transport modes	Institute for Sensible Transport, Australia	Hierarchy of transport modes, dependent on road space requirement and CO2 emitted per kilometre	https://sensibletransport.org.au/
Speed limits in communities	BRAKE, the road safety charity	Consideration of appropriate speed limits for residential areas., including public acceptance.	http://www.brake.org.uk/rsw/15-facts-a-resources/facts/1256-speed-communities
Thriving Cities: integrated land use and transport planning	PTEG July 2011	Report considering the integration of land use and transport planning, outlining the over dependence of planning and use of motorised transport to the detriment of more sustainable and active modes of travel. <i>'Low car accessibility' was defined as at least one minute's drive to reach the nearest main road; presence of a 30 km/hr zone; traffic calming measures; and a pedestrian priority area (a 'woonerf' – known as a home zone in the UK). The number of car trips was over 40% less in these areas than areas of high car access but with similar density and land use mix.</i>	https://www.transportforqualityoflife.com/u/files/Thriving_Cities_Report_WebFINAL.pdf

Document	Authors	Summary	Source link
<p>Reclaiming city streets for people – chaos or quality of life?</p>	<p>European Commission</p>	<p>Cities rather than residential areas, but best practice principles discuss reallocating road space which can often be technically challenging and politically sensitive to plan.</p> <p>Discusses traffic evaporation in a city context, with the experience in a number of European cities is that:</p> <ul style="list-style-type: none"> ▪ traffic problems following the implementation of a scheme are usually far less serious than predicted; ▪ after an initial period of adjustment, some of the traffic that was previously found in the vicinity of the scheme 'disappears' or 'evaporates', due to drivers changing their travel behaviour; ▪ as a result, the urban environment becomes more liveable in many respects <p>Presents case studies – including Ghent.</p>	<p>https://ec.europa.eu/environment/pubs/pdf/streets_people.pdf</p>

C.3 Examples of best practice and development proposals

The table below summarises proposed and implemented schemes which have been reviewed to inform and develop the B&NES low traffic neighbourhood strategy. The review considered approaches to delivery, key issues and opportunities, types of interventions, levels of consultation, results (where available, including successes and if more work is required) and monitoring processes.

Scheme and location	Authority/Author	Summary	Source link
Implemented schemes or in process of implementation			
Waltham Forest mini-Holland project - Low traffic neighbourhoods	London Borough of Waltham Forest	<p>The London Borough of Waltham Forest was one of three boroughs to be awarded £27m by Transport for London (TfL) to implement a 'Mini Holland' scheme. The wider proposals implemented across Waltham Forest are seen to be one of the key examples of best practice within the UK. Two specific schemes within the wider proposals were reviewed in more detail:</p> <ul style="list-style-type: none"> • Walthamstow Village (see case study C.4.1) • Blackhorse Village - area wide improvements are to reduce the amount of through traffic using residential streets, and improve the look, feel and safety of the Blackhorse Village area for all road users. Delivered through a combination of road closures, traffic direction changes, creation of shared public spaces, greening and safety improvements. 	<p><i>Walthamstow Village</i> https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/01/Walthamstow-Village-consultation-document-4.pdf https://www.enjoywalthamforest.co.uk/wp-content/uploads/2016/09/2017-08-23-WV-report-FINAL.pdf https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/01/Walthamstow-Village-Workshop-summary-and-trial-results-2.pdf https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/01/Mini-Holland-Programme-Walthamstow-Village-spread.pdf</p> <p><i>Northcote Road, Blackhorse village</i> Blackhorse village - https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/03/150901-Villages-Blackhorse-PLM-Signed.pdf AQMA Action Plan 2018-2023 and images - https://democracy.walthamforest.gov.uk/documents/s61432/FINAL%20Appendix%201%20Air%20Quality%20Action%20Plan%202018-2023.pdf</p> <p>Following implementation – <i>Monitoring -</i> https://walthamforest.gov.uk/sites/default/files/Population%20Exposure%20Comparison%20F1.pdf https://enjoywalthamforest.co.uk/work-in-your-area/walthamstow-village/comparison-of-vehicle-numbers-before-and-after-the-scheme-and-during-the-trial/</p> <p><i>Key issues and successes – Waltham Forest cycling campaign</i> https://wfcycling.wordpress.com/mini-holland/mini-holland-key-issues-successes/</p>

Scheme and location	Authority/Author	Summary	Source link
Turnpike Lane/West Green DIY Streets project	London Borough of Haringey (& Sustrans)	<p>The Turnpike Lane/West Green DIY Streets project is a collaboration initiative funded by London Borough of Haringey Council and created by Sustrans.</p> <p>The project aimed to improve many aspects of the neighbourhood including reducing traffic speeds and through-traffic, enhancing the environment and improving residents' sense of community within their area.</p> <p>It was a two-year initiative involving working closely with the local community to deliver an affordable, community-led improvement scheme to transform an area around Turnpike Lane Tube Station</p>	https://www.haringey.gov.uk/sites/haringeygovuk/files/turnpike_lane_area_diy_streets_statutory_notification_document.pdf
Modeshift STARS – School streets, Birmingham	Birmingham City Council	<p>Details of six schools which are trialling School Streets in Birmingham, through ETO. See case study (C.4.3)</p> <p>It should be noted that B&NES Council are also signed up to Modeshift STARS and looking to encourage schools to development travel plans and improve active travel access to schools across B&NES. No school streets have been considered at this stage.</p>	https://www.birmingham.gov.uk/info/20163/safer_greener_healthier_travel/367/young_active_travel_initiative https://www.birminghamupdates.com/council-to-close-the-streets-around-six-birmingham-schools/ https://www.birmingham.gov.uk/info/20163/safer_greener_healthier_travel/1891/car_free_school_streets/2 https://www.birmingham.gov.uk/downloads/file/13324/your_questions_answered_leaflet https://www.livingstreets.org.uk/news-and-blog/press-media/birmingham-pupils-take-to-the-streets-during-road-closure
Proposed schemes			
Brixton Liveable Neighbourhood	London Borough of Lambeth	<p>Proposals for improvements to Atlantic Road, improvements to public realm and creation of three distinct 'neighbourhood areas', additionally to the town centre within Brixton.</p> <p>Total value of scheme - £10m. Including successful bid for £7.9m funding from TfL (which will only be released when Lambeth can demonstrate delivery of ambitious ideas). Further £2m from Council.</p> <p>Delivery – consultation in 2019, 'quick win' delivery as soon as possible, project completion by 2022/2023.</p>	https://s3-eu-west-1.amazonaws.com/commonplace-customer-files/brixtonInmap/Brixton%20Liveable%20Neighbourhood%20Project%20Summary.pdf

Scheme and location	Authority/Author	Summary	Source link
Fox Lane, Quieter Neighbourhood, Enfield	London Borough of Enfield	Scheme in development, information on engagement and consultation	https://letstalk.enfield.gov.uk/foxlaneQN
Florence Park Low Traffic Neighbourhood, Oxford	Oxfordshire Liveable Streets (community led report)	<p>See case study (C.4.2)</p> <p>Report to provide an outline estimate of the potential funding required to deliver a low traffic/liveable neighbourhood in the Florence park area.</p> <p>Proposal stage, from community-led perspective, no approvals or funding secured.</p>	<p>https://oxlivsts.org.uk/storage/Flo_Park_LTN_Issued.pdf</p> <p>https://mycouncil.oxfordshire.gov.uk/documents/s48243/CMDE_SEP1219R06%20-%20Rymers%20Lane%20Cornwallis%20Road.pdf</p>
Ghent Circulation Plan	City of Ghent	<p>Larger scale than low traffic neighbourhoods, Ghent implemented a city circulation plan in 2017, following a two-year process to strengthen its sustainable mobility policy and give the streets back to the residents.</p> <p>The proposals involved the enlargement of the city's pedestrian area and creating six distinct areas with no vehicle accessibility between them without using the ring-road.</p> <p>Before implementation, City of Ghent reported 40% of traffic was through-traffic, not originating or ending in Ghent. Within a year of implementation, the impacts of the plan have seen a 25% increase in bicycle users, 8% increase in public transport use, 12% decrease in car traffic during the rush hour, even 29% fewer cars on the most important routes within the ring road and 58% on residential streets. In addition, Ghent's police found the number of traffic collisions have decreased by 25% in the city-centre since the plan implementation.</p>	<p>https://www.cadencemag.co.uk/ghent-changing-the-whole-circulation-plan-overnight-a-strong-political-decision/</p> <p>https://stad.gent/en/mobility-ghent/circulation-plan</p> <p>https://stad.gent/en/mobility-ghent/circulation-plan/principles-circulation-plan</p>

C.4 Case study examples

C.4.1 Walthamstow Village – low traffic neighbourhood

The London Borough of Waltham Forest was one of three boroughs to be awarded £27m by Transport for London (TfL) to implement a 'Mini Holland' scheme¹. This scheme, along with the wider proposals implemented across Waltham Forest, are seen to be one of the key examples of best practice within the UK.

The aims of the scheme were:

- to improve connectivity between villages, by upgrading infrastructure and making walking and cycling easier and safer for residents in the borough;
- encourage community interaction by improving and creating new public spaces to make the borough a more enjoyable place to live; and
- lessen congestion on roads and improve air quality by increasing the number of people travelling on foot, by bike or public transport.

Walthamstow Village is a residential area with vibrant local businesses, several schools and religious establishments. Hoe Street is a major public transport route, with eight different bus services and a railway station served by the Underground (Victoria Line) and Overground services. On average, 25,706 vehicles (in 2013/14) travelled through the village every day.²

Prior to the TfL funding, the area around Pembroke Road in Walthamstow Village was already identified for a neighbourhood improvement scheme. In February 2014, the Council conducted a survey in the area, delivering a document to 2,288 properties, to understand main concerns of the local residents and businesses. They received 118 responses to the survey, raising key issues of traffic volumes and speeding on residential roads including Grove Road, Orford Road, Pembroke Road, East Avenue and West Avenue. This was a result of rat-running, with motorists seeking a shortcut between Hoe Street and Lea Bridge Road, often at high speeds.

Trial Road Closures

A series of trial road closures occurred between September and October 2014 as a result of the funding approval³. The road closures included full or partial closures at least eight roads to all motorised vehicles, including:

- Orford Road between Wingfield Road and Eden Road (except buses and cycles),
- Eden Road junction with Orford Road (except cycles),
- Shernhall Street junction with Lea Bridge Road (except cycles),
- Pembroke Road and Grove Road junction (except cycles),

¹ <https://www.enjoywalthamforest.co.uk/wp-content/uploads/2016/09/2017-08-23-WV-report-FINAL.pdf>

² <https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/01/Walthamstow-Village-consultation-document-4.pdf>

³ <https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/01/Walthamstow-Village-Workshop-summary-and-trial-results-2.pdf>

- East Avenue and West Avenue junction with St. Mary Road (except cycles),
- Grosvenor Rise East junction with Eden Road (except cycles) westbound only,
- Barclay Road junction with Beulah Road (except cycles) westbound only,
- Maynard Road junction with Beulah Road (except cycles) westbound only.

During the trial, several free activities were made available to the public, such as cycle maintenance and cycle training sessions. Copeland Road was host to a 'play street' for one day with music, table tennis and a climbing wall. These activities help show the potential of low traffic neighbourhoods by bringing the community together and promoting sustainable travel.

Results of the trial showed a difference in the number of average vehicles in the area. The roads with the largest decrease in number of vehicles were Orford Road with 85%, Grove Road with 74% and Pembroke Road with 60%. The roads with the largest increase were Beulah Road with 158%, Eden Road with 127% and Wingfield Road with 101%.

Consultation

Before the trial, 4,500 leaflets were delivered to local homes and businesses within the trial area. A public meeting was held at the Asian Centre in September 2014 where the trial was explained in detail by Councillors.

Council officers ran drop-in centres every day for the first two weeks of the trial, located on Orford Road. They also knocked on 4,000 doors to answer residents' questions and obtain any feedback about the trial in the form of a survey. A total of 1,242 people in the trial area responded to the survey, 52% of which were in favour of the trial, 37% not in favour and 11% were neutral.

Two weeks after the trial had ended the council held three meetings with businesses from Orford Road and Grove Road to discuss their experience of the trial. In November 2014, the Council ran four workshops with residents, where attendees could provide feedback on the scheme and make suggestions for any improvements.

A public consultation period for the permanent scheme lasted for three weeks, in November and December 2014. There were several engagement events during this period and the Council met with emergency services, resident groups, schools and religious institutions who were all key stakeholders. Results of the consultation showed 44% were in favour of the traffic changes and 41% were against; however importantly, 74% were in favour of the safer environment plans with 13% against.

Design

The scheme was implemented in April 2015, achieving completion in September 2015. The area proposed was approximately 6.8km² and bound by Hoe Street to the west and Lea Bridge Road to the south, Shernhall Street to the east, and the railway line to the north.



Figure C.1: Final design of Walthamstow Village low traffic neighbourhood

The final design for Walthamstow Village is illustrated in Figure C.1 and included a range of modal filters and area improvements⁴:

- Road closures (except cycles) on East Avenue, West Avenue, Eden Road, Grosvenor Rise East, Grove Road and Copeland Road using bollards, new pavements and parklets;
- Landscaping on East Avenue, West Avenue and Eden Road;
- Eden Road, Grosvenor Rise East, Fraser Road, Merton Road and Addison Road becoming two-way roads;
- Second Avenue changed to one-way westbound;
- Third Avenue and Orford Road changed to one-way eastbound;

⁴ <https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/01/Mini-Holland-Programme-Walthamstow-Village-spread-.pdf>

- Beulah Road changed to one-way northbound;
- The ends of Fraser Road and Merton Road become one-way exits southbound out of the village;
- Raised 'Copenhagen-style' crossings at key junctions into the village;
- Additional cycle parking on Orford Road and Grove Road;
- Pedestrian crossing and junction improvements at Vestry Road, Addison Road, Barclay Road and Grove Road;
- A walking and cycle route from Walthamstow Central station to West Avenue, Orford Road and Summit Road;
- Pedestrian paving and lighting improvements to Barclay Path and Maynard Path; and
- Vehicle restriction (Monday-Sunday, 10:00-22:00) on Orford Road except buses, cycles and pedestrians.

Feedback and results

A detailed review of the changes was carried out by the Council around one year after scheme implementation was completed. It concluded that most residents felt as if the appearance of the local area had improved; implementation of traffic calming, tree planting, parks and public spaces in the Orford Road area were seen as main benefits from the scheme.

49% of residents identified road closures as the least beneficial part of the scheme, however only 17.6% stated they wished to adjust this measure after the scheme was completed. Overall, 55% of residents said they would make no changes to the scheme and only 1.7% said they wish to scrap the scheme and remove all changes.

Over 75% of businesses gave negative feedback about the 10:00 to 22:00 restriction. 41% said their turnover had decreased, whilst 23% said they did not know if there had been a difference and 36% said it had stayed the same or increased. 47% of business owners' overall perception of the scheme was negative, suggesting the traffic restriction, loading and parking facilities were their main areas of concern.



According to traffic surveys conducted, vehicle movements within the neighbourhood have significantly reduced, including 97% reduction on Copeland Road, 92% reduction on Eden Road, and 91% reduction on West Avenue. Average vehicle speeds have reduced from 17.7 mph to 15.8 mph within the Village area. Twelve of the fourteen roads have experienced a reduction in mean-vehicle speed. The introduction of modal filters has also had a positive impact on sustainable travel, as the number of cyclists and pedestrians on Orford Road has increased by 124%.

Journey times of the wider network have increased slightly, with routes experiencing an increase of about 8.6% in each direction. This could be a result of the increased traffic on distributor roads outside of the village; however other bus routes not in the Walthamstow Village were observed for control purposes and also showed increased journey times, suggesting the issue is with the Waltham Forest borough as a whole and not solely Walthamstow Village.

Prior to the scheme, the village had fifteen slight collisions in three years. No collisions have been recorded in the eleven months following the trial. The majority of the prior collisions occurred in the main rat-running routes, which saw zero collisions for the first year since the scheme was introduced. The overall number of collisions also stayed consistent pre- and post-scheme on the boundary roads.

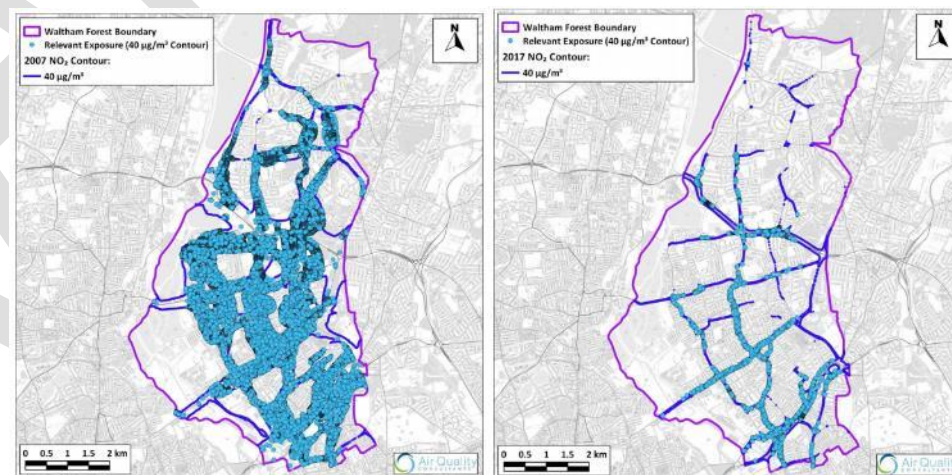
Source: Waltham Forest Cycling Campaign⁵

A road safety audit made recommendations for addressing some minor safety concerns, including: minor drainage issues, adding reflective material to bollards and planters at modal filters, improving some crossings with appropriate tactile paving, relocating cycle parking at a safer distance from vehicle spaces, relocating some road signs to improve visibility and fixing broken lighting.

According to an Air Quality Population Exposure Comparison (2018)⁶ conducted for Waltham Forest, levels of exposure to NO₂ significantly decreased between 2007 and 2017. The number of households exposed to more than the EU recommended maximum amount of NO₂ has reduced from 61,316 to 6,377. Figure C.2 illustrates the comparison of locations of relevant exposure between 2007 and 2017.

Figure C.2: Comparison of locations of relevant exposure in Waltham Forest between 2007 and 2017

Source: Air Quality Consultants (2018), Population Exposure Comparison: 2007 and 2017

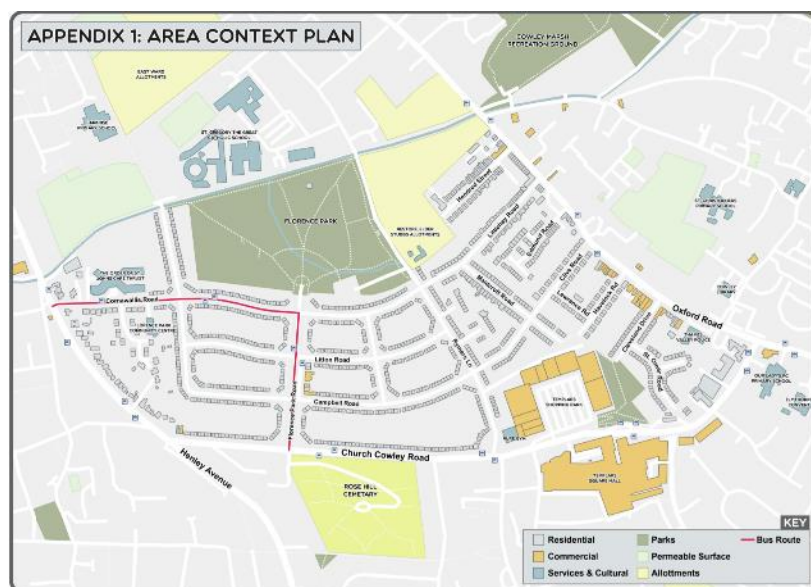


⁵ Mini Holland – key issues and successes <https://wfcycling.wordpress.com/mini-holland/mini-holland-key-issues-successes/>

⁶ <https://walthamforest.gov.uk/sites/default/files/Population%20Exposure%20Comparison%20F1.pdf>

C.4.2 Florence Park, Oxford

The Florence Park low traffic/liveable neighbourhood proposals are a resident-led initiative, in conjunction with Oxfordshire Liveable Streets (advocate group). It is currently still in proposal stage⁷, however provides an example of grass-roots led initiatives, with indicative costings for measures which can be used to inform the development of policy approaches.



The Florence Park area is bounded by distributor roads; the A4158 Iffley Road / Henley Avenue to the west, the B4495 Church Cowley Road to the south and the B480 Oxford Road to the east. The internal roads of the neighbourhood are laid out in a grid, which allow traffic to pass directly through the neighbourhood between these distributor roads. The two busiest internal roads are Rymers Lane (north-south) and Cornwallis Road / Littlehay Road (east-west). Rymers Lane is also publicised as a cycle route.

The main gateway junctions into the neighbourhood (A4158 Henley Avenue / Cornwallis Road, B4495 Church Cowley Road / Florence Park Road and B4495 Church Cowley Road / Rymers Lane) are wide with large sweeping radii that encourage fast vehicle turning movements and create significant crossing difficulties for pedestrians. Rymers Lane is used as the main delivery access for the Templars Retail Park.

The area is mostly residential, but with a convenience store and a public house on Florence Park Road. To the immediate north of the residential zone is Florence Park, which is a key trip generator for all transport modes.

Figure C.3: Florence Park, Oxford – area context plan

Source: https://oxlivsts.org.uk/storage/Flo_Park_LTN_Issued.pdf

The area is already subject to a 20mph speed limit, as well as featuring some traffic calming measures on Rymers Lane and Cornwallis Road (identified above as being the busiest internal routes). Rymers Lane features pinch points which narrow the carriageway to a single lane, forcing vehicles to give way to opposing traffic. Cornwallis Road has speed humps.

There is a bus route through the middle of the area (service 16/16A), which travels along Cornwallis Road and Florence Park Road. There is a frequency of two buses per hour.

Many of the residential properties have off-street parking provision. There are currently no on-street parking controls in place.

⁷ Oxfordshire Liveable Streets: Florence Park Low Traffic Neighbourhood – indicative scheme costings (Sept 2019) https://oxlivsts.org.uk/storage/Flo_Park_LTN_Issued.pdf

Consultation

Oxfordshire County Council held public consultation to the creation of a Controlled Parking Zone (CPZ) in the Florence Park area in November and December 2018.

In January 2019, Oxfordshire Liveable Street hosted presenters from the Waltham Forest Low Traffic Neighbourhood, who shared their experience with Oxford City and County councillors and officers and other community leaders.

Formal consultation began in August 2019, with a notice issued in a local newspaper and emails sent to emergency services, Oxford City Council and Oxfordshire County Council. Notices were also placed around the neighbourhood and letters were sent to approximately 60 properties in the immediate vicinity of the proposed changes.

In September 2019, Oxfordshire Liveable Street hosted a 'Mini Holland weekend', which celebrated the Waltham Forest Low Traffic Neighbourhood and featured various workshops for the community to get involved in. With a coach trip was organised to Waltham Forest in October 2019 so that residents could get first-hand experience of the neighbourhood.

A Cabinet Report for September 2019 outlines a request for traffic calming raised table junction at Rymers Lane/Littlehay Road/Cornwallis Road, however these do not incorporate the full proposals for a low traffic neighbourhood.

A crowdfunding campaign raised £8,500 to support the construction of the proposals.

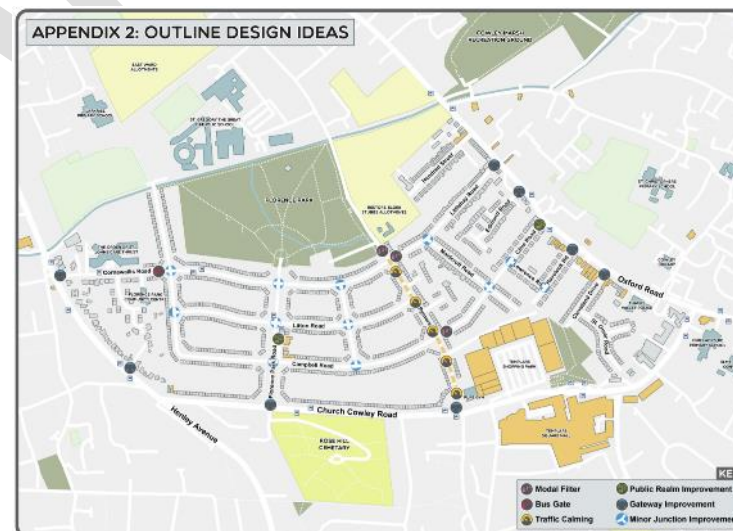
Design

The low-traffic neighbourhood proposals include four model filters, three of which to restrict all vehicle traffic and one as a bus gate:

- Rymers Lane – just south of the car park access to Florence Park
- Littlehay Road – at the junction with Rymers Lane / Cornwallis Road
- Clive Road – at the junction with Rymers Lane
- Cornwallis Road – bus gate west of the junction with Campbell Road

Figure C.4: Florence Park, Oxford – outline design ideas

Source: https://oxlivsts.org.uk/storage/Flo_Park_LTN_Issued.pdf



Rymers Lane is the only internal road which links to external roads to the north. The filter on Rymers Lane therefore prevents vehicle traffic from travelling through the neighbourhood in a north-south direction. Littlehay Road and Clive Road are the only roads connecting to Rymers Lane from the east. The filters on these roads therefore prevent vehicle traffic from travelling through the neighbourhood in an east-west direction. The route via Cornwallis Road and Florence Park Road allows vehicles to bypass the A4158 Henley Avenue / B4495 Church Rowley Road signalised junction. The bus gate on Cornwallis Road prevents general vehicle traffic from travelling this route (and closes most of the neighbourhood to traffic from the A4158 Henley Avenue) but leaves it open for the 16/16A bus.

Three options are given for the design of model filters, presenting a low, medium and high cost options. The low-cost option involves bollards, signage and planters and is recommended for use in a temporary trial. The medium cost option involves kerb realignment with asphalt surfacing, with some basic greenspace improvements such as low-level planting beds. The high cost option involves kerb realignment with higher quality materials such as paving stones, with a larger and more significant coverage of greenspace.

Gateway improvements are proposed at the three primary access junctions at Cornwallis Road, Florence Park Road and Rymers Lane, as well as the secondary access junctions at Littlehay Road, Edmund Road, Havelock Road and Cleveland Road (all with Oxford Road). The gateway improvements aim to signify a change in local / road environment to road users and provide safety and accessibility benefits for non-motorised users.

Similar to the modal filters, three options are given for the design of gateway improvements, presenting low, medium and high cost options. The low-cost options involves visually narrowing the junction using road markings or coloured surfacing on corners and is recommended for use in a temporary trial. The medium cost option involves physically narrowing the junction through kerb realignment and raising the side road entry. The high cost option involves converting the junction to a 'Copenhagen' style layout, in which the footway is continued across the side road to reinforce pedestrian priority. The footway could be surfaced with paving stones with greenspace incorporated where possible to create the maximum impact.

It is also proposed that all pinch point traffic calming on Rymers Lane is replaced with sinusoidal profiled speed humps. It is considered that the existing pinch point features are ineffective at reducing vehicle speeds and can create an environment where cyclists feel vulnerable due to close passing or aggressive driver behaviour at these points.

Public realm improvements are also proposed along Florence Park Road, at the Clive Road / Oxford Road junction and at the four proposed model filters, such as Pocket Parks.

The proposals also note that there is very little consistency across the design of interior junctions in the area, in terms of dropped kerbs and tactile paving, large corner radii and crossing facilities. It is understood that improving all the interior junctions will be a significant undertaking, but it is recommended that a full audit of them be carried out.

The range of potential costs of these proposals for generic elements of the proposals are presented in the table adjacent.

Intervention type	Low cost	Medium cost	High cost
Model filter	£2,500 – £7,500	£10,000 – £20,000	£20,000 – £30,000
Bus gate	£25,000		
Primary junction gateway	£2,500 – £5,000	£20,000 – £25,000	£35,000 – £40,000
Secondary junction gateway	£2,500 – £5,000	£10,000 – £15,000	£20,000 – £30,000

Ten project stages have been outlined for the delivery of the low traffic neighbourhood and indicative costs for activities in each are presented in the table below. These were informed by Waltham Forest costings. They are dependent on the size of the potential area and do not account for all officer and/or consultant resource requirements.

Project stage	Activity	Cost
Feasibility / data collection	Automatic traffic counts (ATCs)	£3,000
	Topographical surveys	£0 – £15,000
	Utility surveys – GPR, C2/C3	£0 – £20,000
	Automatic number plate recognition (ANPR) surveys	£5,000 – £10,000
Early engagement	Community surveys (digital and / or hard copy)	£5,000
	On-street feedback mechanisms, pop-up events, led walks/rides, etc	£5,000
Concept design	Assumes that design will be development by local authority. Use of external consultants will attract additional costs	£0
Community co-design	Workshops / community events including materials	£2,000 – £5,000
Preliminary design	Road safety audit – Stage 1	£3,000
Public consultation	Production of material and facilitation of consultation (digital and / or hard copy)	£5,000 – £8,000
Detailed design	Road safety audit – Stage 2	£3,000
Statutory consultation	Advertisement of Traffic Management / Regulation Orders	£2,000 – £10,000
Construction	Temporary traffic management, etc	TBD
Review	Selected traffic surveys. Stage 3 Road Safety Audit, possible qualitative community feedback	£3,000 – £10,000

Source: Oxfordshire Liveable Streets: Florence Park Low Traffic Neighbourhood – indicative scheme costings (Sept 2019)⁸

Feedback

As the works at Florence Park are only at the proposal stage and are yet to be implemented, no feedback from residents is publicly available yet. However, the September Cabinet report⁹ for traffic calming measures at Rymers Lane/Littlehay Road/Cornwallis Road received sixteen responses, 4 objections (25%), 8 in support (50%) and 4 neither supporting nor objecting (25%). Responses received also included representations that a more comprehensive approach was required, mentioning the low traffic neighbourhood proposals.

⁸ Report prepared by C Proctor Engineering Limited for Oxfordshire Liveable Streets

⁹ https://mycouncil.oxfordshire.gov.uk/documents/s48243/CMDE_SEP1219R06%20-%20Rymers%20Lane%20Cornwallis%20Road.pdf

C.4.3 Car-free School Streets, Birmingham

All schools in Birmingham have been asked to sign up to Modeshift STARS, a free online travel planning tool, as part of the Young Active Travel Initiative by Birmingham City Council. The aim is to encourage children to walk, cycle, or use public transport which has many benefits for health, wellbeing and the environment¹⁰. Schools and parents can also apply for grants up to £1,000 to support the travel plans, increase sustainable travel to school, and improve child's safety on the journey to and from school.

As part of their commitment to safer, greener, healthier school travel, Birmingham City Council have selected six schools to trial vehicle bans for the 2019/20 academic year. Streets around the schools will become pedestrian zones for 30 minutes to 1 hour at start and end times of the school day.

Councillor Waseem Zaffar said: *"Car Free School Streets are about putting children and families first, making it easier and safer for them to walk or cycle to and from school, while also helping to reduce air pollution...Air pollution is a major problem here in Birmingham and the school gate is a location where we are particularly exposed to this. As the father of young children myself, I know that I cannot simply stand by and do nothing... This pilot scheme is a hugely positive step forward and is one of a number of things we are doing to tackle air pollution and encourage people to make greener travel choices"*.

Selection conditions

The participating schools are Alston Primary, Chilcote Primary, Cofton Primary, Featherstone Primary, Nelson Primary, and St Francis CE Primary.¹¹ The schools were selected based on several criteria:¹²

- Location
 - Distributor roads or roads used for busses cannot be included
 - Surrounding streets should be able to handle displaced traffic and parking
 - Local infrastructure is in place to support walking and cycling (i.e. safe crossing points, local routes and cycle storage)
 - Consideration of any other traffic generators in the area, including businesses, health centres, shops etc.
 - Availability of 'Park & Stride' locations near by
- Engagement and Commitment
 - Proven support from school staff, residents, parents and local Councillors
 - Previous initiatives or activities to encourage safer, greener and healthier travel

¹⁰ https://www.birmingham.gov.uk/info/20163/safer_greener_healthier_travel/367/young_active_travel_initiative

¹¹ <https://www.birminghamupdates.com/council-to-close-the-streets-around-six-birmingham-schools/>

¹² https://www.birmingham.gov.uk/info/20163/safer_greener_healthier_travel/1891/car_free_school_streets/2

- Previous initiatives or activities to address parking at the school gate
- School travel survey data should be collected from pupils on a regular basis
- Schools need to be signed up with and participating in Modeshift STARS programme and working towards accreditation available through the scheme
- Commitment from the school to promote and support the pilot as appropriate

Design

The pilot began week commencing 23rd September 2019. The model filter does not include any physical barrier, instead signage has been implemented and the vehicle ban is being reinforced with a £50 fine for driving in the restricted zone. The table below shows the locations of affected roads.

Location	Restricted periods
Alston Road	Monday to Thursday, 08:00 to 09:00 and 15:15 to 15:45 Friday, 08:30 to 09:00 and 12:15 to 12:45
Chilcote Close	Monday to Friday, 08:15 to 09:15 and 14:45 to 15:45
Wootton Road (from Nuthurst Road) and Longmeadow Grove	Monday to Friday, 08:15 to 09:15 and 14:45 to 15:45
Glenville Drive and Haywards Close	Monday to Thursday, 08:15 to 09:15 and 14:30 to 15:30 Friday, 08:15 to 09:15 and 13:15 to 14:15
St Mark's Crescent, Acorn Grove, Daley Close, Kelsall Croft and Sherborne Grove	Monday to Friday, 08:15 to 09:15 and 14:30 to 15:30
Teazel Avenue	Monday to Friday, 08:30 to 09:00 and 15:00 to 16:00

The changes were made with an Experimental Traffic Regulation Order (ETO) which can stay in place for a maximum of eighteen months. This enables ongoing consultation throughout the Order and minor amendments to be made.

Residents need to apply for permits, which are available on the Birmingham City Council website. They also need to apply for temporary permits for any visitors such as tradesman. Blue badge holders and emergency services are exempt from the restriction. Parents/carers who drive from further away are asked to park a short distance away from the school and walk the last part of the journey.

Consultation

The first six months of the scheme will act as the formal consultation period where the council are accepting written comments or objections. There would also be a formal consultation before the scheme would be made permanent, if the trial is a success.

Feedback

There is limited feedback available for this scheme as it has been implemented recently. Surveys were carried out with pupils, parents and residents at the start of the pilot and will also be carried out at a later stage, to gain feedback on the scheme. Birmingham Public Health are also delivering a project on monitoring air quality which schools are able to get involved in¹³.

On 18th October 2019 pupils from Nelson Mandela School were joined by Living Streets to celebrate the road closures. The school's street was closed to traffic between 14:00 and 17:00 as part of an awareness day to highlight issues flagged up by councillors, the school and the community about perception of speeding and parking in the area¹⁴.

¹³ https://www.birmingham.gov.uk/downloads/file/13324/your_questions_answered_leaflet

¹⁴ <https://www.livingstreets.org.uk/news-and-blog/press-media/birmingham-pupils-take-to-the-streets-during-road-closure>

C.5 Appendix B – sources for types of measures and interventions

Table B.1 in Appendix B has been informed by professional and local knowledge in addition to:

- London Cycling Campaign, *Low Traffic Neighbourhoods: An Introduction For Policy Makers*, https://s3.amazonaws.com/lcc_production_bucket/files/13009/original.pdf?1536332516
- London Cycling Campaign, *A Guide To Low Traffic Neighbourhoods*, https://s3.amazonaws.com/lcc_production_bucket/files/13010/original.pdf?1536332560
- Cycle Enfield, *Quieter Neighbourhoods*, <http://cycleenfield.co.uk/quieter-neighbourhoods/>
- Cycling Embassy of Denmark – *Shared Space* - <https://cyclingsolutions.info/shared-space/>
- Waltham Forest Council, *Mini- Holland*, <https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/01/mini-holland-tender-13-dec.pdf>
- Waltham Forest Council, *Mini- Holland Design Guide*, <https://www.enjoywalthamforest.co.uk/wp-content/uploads/2015/01/Waltham-Forest-Mini-Holland-Design-Guide.pdf>
- London Living Streets, *Low Traffic Neighbourhoods – Priority Measures and Costs*, <https://londonlivingstreets.files.wordpress.com/2019/10/ltns-e28093-priority-measures-costs-4.5.2019-2.pdf>
- London Living Streets, *Low Traffic Neighbourhoods –* https://www.livingstreets.org.uk/media/4590/parklets_tool_kit.pdf
- Department for Transport, *Local Transport Note 1/07: Traffic Calming*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/329454/ltm-1-07_Traffic-calming.pdf