London Cycling Campaign

31 January 2017

London Assembly Transport Committee Investigation into Bus Services

https://www.london.gov.uk/about-us/london-assembly/london-assemblys-current-investigations/bus-services

This consultation response is on behalf of the London Cycling Campaign, the capital's leading cycling organisation with more than 12,000 full members and another 30,000 supporters. The LCC welcomes the opportunity to provide commentary on bus services.

Network Design

Introductory notes:

- London's road transport should be planned to maximise walking, cycling and bus use ahead of movements by private motor cars, private hire vehicle and taxi movements (there is also a need to reduce freight traffic through measures such as consolidation). Therefore, an investigation into how Transport for London plans the bus network is welcome.
- The bus network has grown and changed over many years largely through the addition or modification of individual routes. A thorough analysis and redesign of the entire bus network at a strategic level should be performed because of this, but also because of emerging and changing trends of travel, development and technology in London.
- The redesign should take into account existing usage plus impact of new cycling infrastructure and predicted growth in cycling, predicted growth in population (by centre), plans for housing and other major development across London, emerging centres of employment/retail, new tube and rail developments and potential new river crossings, among other factors.
- The bus network should be redesigned to make bus journeys more attractive than private motor car trips without hindering the growth in cycling and walking that is also necessary. And the network should be redesigned for a London where "mixed mode" journeys are an increasingly common feature as people ride to the bus station, or hire a cycle from the bus stop onwards.

Recommendation: A strategic redesign of London's bus network to enhance not just bus usage, but maximise walking, cycling, and mixed-mode journeys.

Bus, cycling and other roads infrastructure

On the issue of bus priority schemes and bus lanes: such measures, currently prohibits most high-quality cycling schemes from reaching fruition. The most innovative and highest-quality cycling schemes (and indeed even often quite unambitious ones) are routinely vetoed by TfL Buses for

introducing even very small delays to buses. The Mayor, London Assembly and TfL must be absolutely clear – if bus concerns are to always trump cycling concerns, London will not become a cycling city, and will not achieve its targets for growth of cycling. Instead, private motor vehicle traffic should be targeted to free up space for bus priority, cycling *and* walking infrastructure.

While in general buses and cycles should not be required to share the same space (as this is not an approach likely to enable a more diverse range of people to cycle), it should not be the case that cycle infrastructure automatically displaces bus infrastructure: restriction of private motor vehicle traffic (including private hire vehicles, taxis and motorcycles, plus commercial deliveries etc.) should be the primary way bus priority schemes should be delivered – not by removing or reducing space for cycling or walking. Restricting motor traffic capacity will also encourage modal shift to cycling, walking and bus journeys. Analysis of the potential to shift current private motor vehicle and private hire vehicle journeys to bus, tube, rail, cycling and walking should also be considered as part of this – with areas with high numbers of short car trips etc. targeted as a priority.

Recommendation: prioritise walking, cycling and bus infrastructure and priority; de-prioritise private motor vehicle traffic priority, particularly in central London. Ensure TfL Bus, Cycling and Walking teams work in concert, rather than against each other.

Bus lanes and cycling

Some bus lanes have value for some people who currently cycle in London – as they are often quieter and less aggressive to ride in than the main roads next to them. But beyond a certain volume of motor vehicle traffic, bus lanes become a barrier to much broader adoption of cycling – they are not suitable for children, the elderly and for many others to cycle in. In other words, they offer some benefits to those who currently cycle, but little benefit in increasing cycling numbers and diversity. It is not just Oxford Street where the sheer weight of bus movements (with or without a lane) dominates the street scene, reduces the attraction of walking and causes large amounts of pollution the volume of bases has also reduced the vitality of many other iconic central London streets.

LCC considers the threshold beyond which bus lanes lose any amenity for current cycling and become instead a barrier to further uptake to cycling to be 2,000 PCUs (Passenger Car Units) of motor vehicle traffic daily. This figure would include buses, motorcycles and taxis where permitted.

Most bus lanes (because they are busy and sited on main roads) do not represent good quality cycling infrastructure. Equally, permitting taxis, motorbikes, private hire vehicles (PHVs) or even cycling in bus lanes impedes bus movements, inconveniencing passangers. The default should be either cycle tracks provided separate to bus lanes, or bus and cycle routing should be separated onto different streets entirely.

On some roads, the removal of motor vehicle traffic may be sufficient to create both a high-quality bus priority scheme and acceptable conditions for cycling provided total motor vehicle numbers fall below the 2,000PCUs threshold and bus speeds are low.Where a bus lane is present at the same time as motor vehicle volumes remain above 2,000 PCUs/day then, even if bus frequency is low, a cycle track is required. This is because even low volumes of buses will deter many from cycling in the bus lane for fear of collisions.

Regarding routing: the London Cycling Design Standards demonstrate that the more indirect the cycle route, the less it will be used. Therefore, where rerouting on separate streets occurs, the more direct route should be given to cycling and the less direct one to buses.

The goal for London's cycling network should be a grid, with 250m spacing, of high quality routes. Point to point cycle journeys within this network should be safe and easy to negotiate. To avoid collisions, the bus network should ultimately be configured around and this grid.

Rerouting of bus networks should not have the effect of decreasing amenity for cycling and walking – including by introducing large bus "stacking" areas or creating street designs that lock in bus schemes and lock out future cycling and walking improvements.

TfL should, in fact, take the opportunity of a thorough reconsideration of the bus network to gather regional and international evidence on bus interactions and bus lane safety with vulnerable road users – for instance, data on cycle collisions in bus lanes compared to similar roads without lanes, and/or those roads with cycle tracks, should be collated.

Recommendation: Buses and cycles should be kept separate, either by having separate routes – with the cycle route taking priority in terms of directness - or by using physically protected cycle tracks on all bus routes where motor vehicle traffic exceeds 2,000 PCUs dailyirrespective of whether a bus lane exist that may be used for cycling.

Recommendation: TfL should study and compare bus-cycle and bus-pedestrian collision data in the following categories: where cycling occurs in bus lanes; where high quality cycle tracks run parallel to bus routes; where all traffic shares the same space.

The bus network of the future

Surface transport in the London of tomorrow will be very different to that of today, as new spatial developments occur to accommodate its growing population, new public transport capacity is created (e.g. Crossrail and Underground extensions), new services and technologies disrupt the private car market (e.g. car sharing, autonomous vehicles) and indeed as cycling is promoted across the capital. The bus network must be redesigned to play an even more effective role as patterns of travel change in the future.

For instance, one future scenario worth investigating is where people often cycle to the bus stop or station, then board – leaving their bike locked up– or conversely where people leave a bus and get on a Hire Cycle at a certain point in their journey. In this scenario, a combined ticketing system between Hire Cycles and the Bus network, even integration into the "Hopper" fare, and planning cycle parking facilities well would maximise the utility and uptake of both cycling and buses.

The network, and any permanent bus infrastructure, should also be designed with consideration for likely future technology trends. The increasing likelihood of autonomous vehicles becoming part of the transport mix creates the possibility of dynamically routed bus or other road-based public transport networks where the route is created by demand. Again, these ideas should be considered on the basis of maintaining cycling and walking networks, likely bus interfaces with them, and the best possible bus infrastructure that's fit for the future.

Recommendation: plan a bus network fit for a future London, allowing for mass cycling numbers, maximising bus/cycle integration and anticipating other key technology-driven trends in road use.

Outer London

Large buses or high frequencies of buses are often routed down residential, quiet streets in Outer London. With the introduction of the "Hopper" ticket, smaller buses and less frequent services could be instead be used to penetrate larger, quiet residential areas, and these can then be linked to larger, more frequent bus routes on "distributor" roads. This approach would both encourage walking and cycling, and quieten many residential areas by removing large volumes of bulkier/noisier buses. In these areas "bus gates" using Automatic Number Plate Recognition (ANPR) cameras, rising bollards etc. could be used to remove through motor traffic, enhancing bus priority in the area.

Recommendation: investigate redesigning bus network in outer London to provide quieter and more cycle-friendly residential neighbourhoods.

Central London

In central London there is an opportunity to remove many bus movements from our densest urban areas – where bus routes suffer worst delays, add most to pollution and represent the most off-putting barrier to more cycling and walking, especially on main roads and near amenities. Here, the Hopper ticket (and other, future time limited ticketing approaches) could be used to terminate and loop back many current through routes (e.g. many buses that run from SW London to NE go directly through central London). Instead, in the centre, smaller and lower pollution buses could work in a grid format – allowing those who do want to cross London to continue to do so, but removing much congestion to the network simultaneously and freeing up space for more cycling and walking.

Recommendation: remove through bus routes from central London and replace with low pollution network of smaller buses.

Bus stop design

Special consideration should be given to bus stop design where cycle tracks and bus lanes run adjacent to each other. Such stops should be located to ensure continuity of cycle tracks whilst still ensuring safe and easy use by bus passengers. , Further design, analysis and innovation is needed to ensure London has the best answer for how to do this. (As an example, "bus stop bypasses" require a certain width to be installed – if TfL settles on such designs as the best possible stop/track interface, then care should be taken to install stops wherever there is width to do a bypass, where possible.) Often current designs of bus lanes ensure that buses stopped in a “bus cage” force those cycling out into the next lane, or to squeeze between the bus and traffic, or to wait. Bus stop “bypasses”, “boarders” or other designs that maintain physical separation between buses and cycle tracks are to be encouraged throughout any replanned network.

Recommendation: establish best practice design criteria for bus stops located adjacent to cycle tracks and remove as far as possible any use of the “bus cage” for those cycling.

Summary of network design recommendations

- A strategic redesign of London’s bus network to enhance not just bus usage, but maximise walking, cycling, and mixed-mode journeys.

- Prioritise walking, cycling and bus infrastructure and priority; de-prioritise private motor vehicle traffic priority, particularly in central London. Ensure TfL Bus, Cycling and Walking teams work in concert, rather than against each other.
- Buses and cycles should be kept separate, either by having separate routes – with the cycle route taking priority in terms of directness - or by using physically protected cycle tracks on all bus routes where motor vehicle traffic exceeds 2,000 PCUs dailyirrespective of whether a bus lane exist that may be used for cycling.
- TfL should study and compare bus-cycle and bus-pedestrian collision data in the following categories: where cycling occurs in bus lanes; where high quality cycle tracks run parallel to bus routes; where all traffic shares the same space.
- Investigate redesigning bus network in outer London to provide quieter and more cycle-friendly residential neighbourhoods.
- Remove through bus routes from central London and replace with low pollution network of smaller buses.
- Establish best practice design criteria for bus stops located adjacent to cycle tracks and remove as far as possible any use of the "bus cage" for those cycling.

Safety

Introductory notes:

- A common theme throughout this section is the suggestion that measures and standards already introduced in the construction sector to reduce work related road risk through schemes like **CLOCS (Construction Logistics and Community Safety) should be adapted for use in the bus sector**. Further details of CLOCS are available on the CLOCS website.
- We note also that **London's buses and bus drivers, whose employers are licensed by TfL, could, and should, be a beacon of good practice and behaviour** for all road users in London. Whether it's observing the speed limit, or not entering ASLs (bike boxes) bus drivers could set the standard that others would likely follow.
- We note that the previous Mayor published a list of bus safety measures that have not yet been fully implemented.
    - Develop a world leading bus safety standard for London
    - Update TfL's bus contracts to include new safety incentives
    - Provide a UK-first Incident Support Service for those affected by fatal or serious injuries
    - Publish additional bus collision data and making it more accessible
    - Provide a new safety training module to all 24,700 drivers

Recommendation: Fully implement the bus safety programme incorporating the further recommendations listed in the sections below.

Collision data

LCC notes the absence of comprehensive statistical data on bus collisions with pedestrians and cycle users. The data currently available sometimes includes both buses and coaches and at other times separates them making analysis difficult.

We note, for example, that the London Assembly briefing for this consultation states that:

"Bus and coach collision casualty rates (killed or seriously injured – KSIs) have roughly halved between 2006 and 2014.[1] Despite this long-term improvement, casualty rates have risen recently. Between 2014 and 2015, the number of fatalities in bus collisions increased from 10 to 14 (40 per cent), and the total number of injuries requiring hospital treatment increased from 1,300 to 1,585 (22 per cent)."

This statement, which draws on the recent TfL analysis of bus and coach safety and separate bus safety data, does not provide a direct comparison of bus collision data. By using combined bus and coach data the TfL analysis leads to a more positive picture regarding bus-only safety statistics for recent years.

Tom Kearney, of the Safer Oxford Street blog and #LondonBusWatch campaign, provides yet another set of figures based on his FOI requests which concludes that London road collisions involving buses and coaches have grown steadily since 2012[2].

We note the following statistics from the information provided in response to Mr Kearney's FOI request. Data supplied to Kearney relates to collisions not casualties hence a proportion of incidents listed in the total numbers will not have involved people.

- The total number of bus and coach collisions has increased from 22,223 in the year 2012/13, to 27,208 in the year 2015/16[3].
- The rates of collisions per million kilometres operated have increased from 44.3 to 54.9 in the same time period[4].
- Bus and coach collisions with cyclists increased from 142 in the year 2014/15 to 258 in the year 2015/16, amounting to an 81% increase[5].
- The total number of collisions recorded for 2015/16 in the FOIs listed is the highest since 2007/8, the last available year provided within the FOI request[6].
- Pedestrian collisions for the year 2014/15 were recorded at 572 incidents[7], considerably higher than the 341 total pedestrian casualties reported for 2015 in the TfL document on long term bus casualty trends[8].

[1] http://content.tfl.gov.uk/long-term-bus-casualty-trends-paper.pdf
[2] http://saferoxfordstreet.blogspot.co.uk/2016/07/londonbuswatch-question-of-ownership-is.html?view=sidebar
[3] FOI-0369-1617 FOI-0369-1617
[4] See note 3
[5] See note 3
[6] See note 3
[7] See note 3
[8] See note 1

TfL acknowledges the discrepancy between the STATS19 (Met police data) and IRIS data (internal incident management system) sources and is in the process of consolidating these, with the aim of publishing STATS19 and IRIS data for the same time period as a single data set from May 2017[9]. This may, or may not, account for some of the discrepancies in the numbers above.

Recommendation: There should be no ambiguity or lack of clarity in collision and fatality data so that appropriate lessons can be learned and relevant measures taken. Bus and coach data should be provided and analysed separately.

Analysis and reporting

There is no comparable report to the Construction Logistics and Cyclists Safety study by TRL for the bus sector. The CLOCS report led to a series of clear recommendations that have been implemented by TfL and participating industry members of CLOCS who now number more than 400.

Recommendation: Carry out an independent analysis of fatalities and serious injuries involving buses which leads to concrete actions supported by bus operators.

Recommendation: Fatal road collisions involving buses should be investigated by an independent body.

Standards

TfL has initiated two valuable safety standards for the freight and construction industries: the Fleet Operators Recognition Scheme (FORS) and the Construction Logistics and Community Safety (CLOCS) standard.

Both schemes have helped to set and maintain standards in the HGV sector. Buses, like HGVs, are large vehicles which pose significant danger to vulnerable road users. The FORS and CLOCS models merit adaptation for the bus sector.

We note that FORS silver grading, which includes SUD driver training as a requirement, should be used as the minimum base for a bus operator standard.

Some HGV operators, such as McGee, use digital apps and handheld devices to maintain and enforce safety standards. By using NFC tags on vehicles or premises specific physical checks can be confirmed, and faults identified, by photographs. This saves time in addressing faults because managers are immediately aware of faults or problems and it also ensures that all physical checks are carried out and keeps a record of them.

Recommendation: Implement a bus safety and operation standard that exceeds the standards set in FORS and CLOCS

[9] http://content.tfl.gov.uk/sshr-20161117-item10-bus-safety-programme.pdf

Recommendation: Require operators to document safety standard enforcement through apps and NFC tags. A date should be set for London bus operators to implement this technology.

Driver training

More than 25,000HGV drivers, , mostly London-based, have now completed the Safer Urban Driving (SUD) module. This module, approved by the government JAUPT agency for a driver's annual Certificate of Professional Competence, is designed to address road danger from large vehicles to vulnerable road users and includes on-bike experience of the road traffic. The programme has been consistently rated highly by drivers who, in a large proportion of cases, say it has changed their behaviour.

A variation of this training has also been piloted with London-based Stagecoach bus drivers by Cycle Training UK, the major developer of training modules related to cyclists and pedestrians

We note that LCC receives complaints about bus drivers which relate to close passing, excess speed and, frequently, ignoring Advanced Stop Lines (ASLs). It is hard to know whether this is a case of thoughtlessness or a lack of understanding of what does, and does not, constitute a hazard for cyclists or pedestrians. While education may not mitigate inappropriate incentives or counter thoughtlessness it can enable drivers to understand cyclists' behaviour and adjust their driving accordingly. Bus driver respect for ASLs must be encouraged because it sets an example to other drivers.

Recommendation: A programme of driver training based on a CPC approved module, similar to SUD, should be standard for all London bus drivers. The training must include on-bike experience of road traffic as in the SUD training for HGV drivers. TfL should consider making such a programme obligatory for London operators, including both new and current drivers, through the licensing or franchise process.

Recommendation: Drivers should be made aware that operators may carry out random checks of their bus video camera footage to ensure best practice is being followed.

Recommendation: Bus drivers should respect ASLs and other cycling infrastructure.

Incentivisation

It is imperative that incentivisation of faster journey times does not play any role in the bus and coach industry**.** Such practices can very easily lead to increased road danger for vulnerable road users.

Incentivisation of improved safety standards is welcome.

Recommendation: Companies operating buses in London should be required to sign documents stating that they do not operate any incentivisation scheme relating to the speed or number of journeys carried out by drivers.

Vehicle design

The CLOCS project has led to a specific working group looking at vehicle design and safety improvements. Sensors that detect cyclists and pedestrians, improved camera systems, turn indicators with repeaters across the side of the vehicle, audible turn warnings, wheel guards and auto braking systems are among the innovations that have recently been developed.

Recommendation: TfL should facilitate a bus industry working group to improve bus safety and environmental performance features.

Speed

High burst speeds by buses can endanger both bus occupants, when braking takes place, and other road users. ISA and other technology can discourage excessive speeds. By controlling the speed of buses the speed of other traffic can be kept within the set speed limits.

Recommendation: Buses should use appropriate technology to prevent excessive burst speeds on London roads

Summary of safety recommendations

- Fully implement the bus safety programme incorporating the further recommendations listed in the sections below.
- There should be no ambiguity or lack of clarity in collision and fatality data so that appropriate lessons can be learned and relevant measures taken. Bus and coach data should be provided and analysed separately.
- Carry out an independent analysis of fatalities and serious injuries involving buses which leads to concrete actions supported by bus operators.
- Fatal road collisions involving buses should be investigated by an independent body.
- Implement a bus safety and operation standard that exceeds the standards set in FORS and CLOCS.
- Require operators to document safety standard enforcement through digital aps and NFC tags. A date should be set for London bus operators to implement this technology.
- A programme of driver training based on a CPC approved module, similar to SUD, should be standard for all London bus drivers. The training must include on-bike experience of road traffic as in the SUD training for HGV drivers. TfL should consider making such a programme obligatory for London operators, including both new and current drivers, through the licensing or franchise process.
- Drivers should be made aware that operators may carry out random checks of their bus video camera footage to ensure best practice is being followed.
- Bus drivers should respect ASLs.
- Companies operating buses in London should be required to sign documents stating that they do not operate any incentivisation scheme relating to the speed or number of journeys carried out by drivers.

- TfL should facilitate a bus industry working group to improve bus safety and environmental performance features.
- Buses should use appropriate technology to prevent excessive burst speeds on London roads.