AGENDA ITEM 5

TRANSPORT FOR LONDON

SURFACE TRANSPORT PANEL

SUBJECT: UPDATE ON TRAFFIC SIGNALS IN LONDON

DATE: 9 NOVEMBER 2010

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1 PURPOSE AND DECISION REQUIRED

1.1 The purpose of this paper is to update the Surface Transport Panel on the actions being taken by TfL to manage the overall numbers of traffic signals in London, ensure that all new signal installations are fully justified and that existing ones remain the most appropriate form of traffic management to serve best the needs of all road users in the Capital.

2 BACKGROUND

2.1 Traffic lights have a vital role to play in managing day to day operations on the road network, regulating traffic flow and helping to keep pedestrians moving. The number of traffic lights has grown rapidly in London over the last 10 years, from about 4,800 in 2000 to over 6,000 today. Although their growth has reduced in recent years, total numbers are still increasing. Concerns have arisen that some signals are causing unnecessary delays for both road traffic and pedestrians. Traffic signals also add to the level of visual clutter and obstacles on the street, contrary to the Mayor's objectives for improving urban realm, as set out in '*Better Streets'*. Given tighter funding constraints going forward, the affordability of maintaining such a high number of signals is also a consideration.

2.2 Traffic signals are designed to manage conflicting movements of road traffic and pedestrians safely and efficiently. In the urban environment, they provide similar capacity to a roundabout in a smaller geometric footprint, with the added advantage of providing safe places for pedestrians to cross. They perform most efficiently at high traffic volumes, but are less efficient where traffic volumes are low. They also provide a valuable means of controlling traffic flows to minimise disruption when accidents and other incidents occur on the network.

2.3 However, there is a perception that many traffic signals have been installed without proper scrutiny of alternatives; that they are an easy option, particularly at locations where communities are segregated or where collision rates are high.

2.4 Under low flow conditions, traffic signals are not as efficient as the equivalent priority junction or roundabout, and no amount of review work can make them so. Some of London's existing traffic signals operate in low flow conditions and their installation would not have been justified were it not for other considerations.

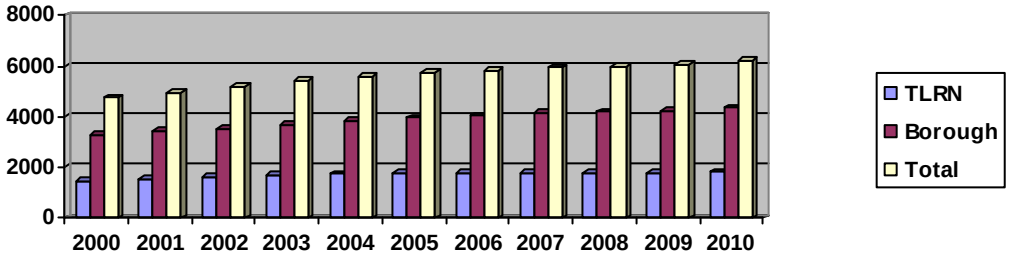
2.5 The first of these considerations is safety. Traffic signals have a good record of reducing personal injury accidents. The second consideration is amenity, where they provide safe routes to school, or connect communities segregated by major roads. The third consideration (and it is this that has led to much of the signal population growth in the last 20 years) is that they aid the implementation of wider transport policy measures, particularly bus and cycle priority and the achievement of development aspirations. Over the last few years, TfL records indicate that typically, developer led schemes account for at least a quarter of new signals installed, while borough promoted transport projects (including Local Implementation Plan (LIP) funded schemes) account for up to 40 per cent. TfL modal client led projects (e.g., walking, cycling, road safety, accessibility and bus priority initiatives) make up another 30 per cent.

2.6 Development funding of new traffic signals has also provided local authorities with the means to facilitate wide social and economic policy objectives like regeneration and commercial development over many years, and most of these traffic signals provided are still present.

3 CURRENT STATUS

3.1 TfL's Traffic Directorate is responsible for the design, approval, maintenance and operation of all traffic signals in London, but it is not responsible for the generation, sponsorship and funding of schemes involving traffic signals. This is the responsibility of either local authorities or separate client groups within TfL. Transport for London does have the legal powers to refuse a proposed traffic signal under the Greater London Authority Act 1999, but only where it considers that there are reasonable grounds for refusing to do so. This power has never been exercised.

3.2 There are now 6,187 traffic signal sites in London[I], an increase of 1,432 since 2000 (see graph below). In financial year 2009/10, 69 new traffic signal sites were installed and 29 removed. Of the 69 new installations, 66 included pedestrian crossing facilities.



[I] TfL is currently reviewing how the numbers of traffic signal sites in London are counted to ensure the accuracy of its inventory and to ensure that the definition it uses more closely reflects public perception of what constitutes an individual set of traffic signals.

4 FURTHER SIGNAL INSTALLATION

4.1 TfL is reviewing all current proposals for new traffic signal installations. At the start of the review, there were proposals for 111 new signals. So far, the review has reduced this to 83 new traffic signal sites proposed across London (14 on the TLRN and 69 on borough roads). These include:

(a) 24 sponsored directly by boroughs using their own funds or from development funding;

(b) three LIPs related;

(c) 26 TfL funded;

(d) 28 development related; and

(e) two Olympic Delivery Authority schemes.

The 14 TLRN schemes relate to committed major highway schemes at Gants Hill, Bounds Green and Kender Street and legally committed developer schemes. The review of current proposals will continue.

4.2 It is also now proposed to increase the level of scrutiny of new schemes to ensure that local authorities and TfL's own internal scheme sponsors consider all alternatives before proposing a new set of traffic signals, and that existing proposals be scrutinised to ensure that they are delivering benefits. If they are not, TfL proposes that they be replaced by alternative traffic management proposals, driven by 'give-way' principles and priority rules.

4.3 TfL's Traffic Directorate will refuse proposals for new signal installations where it is evident that alternative methods of traffic control have not been considered, or where installation will cause unacceptable levels of disruption to road users and will not deliver significant safety or pedestrian benefits.

4.4 There may, however, be cases where overarching policy considerations or significant local issues mean that signal installations will still need to go ahead in order to achieve wider transport objectives. In these instances, and following thorough review by and agreement of stakeholders, exceptions may be made.

5 THE REMOVAL OF EXISTING TRAFFIC SIGNALS

5.1 A number of pilot traffic signal removal initiatives have already been implemented across London, including:

(a) in Ealing (Gunnersbury Lane/Bollo Lane and Western Road – Montague Way – Featherstone Road), where two signalised junctions have been replaced by mini-roundabouts and a zebra crossing;

(b) in Westminster at Ebury Street/Elizabeth Street, where a four-way 'all red' phase pedestrian crossing has been replaced by conventional give-way markings and a raised crossing table; and

(c) at Drury Lane/Great Queen Street (on the border of Camden and Westminster), where traffic signals, guardrail and street clutter have all been removed as part of public realm improvements in the area.

5.2 Feedback from these projects has been very encouraging. In Ealing, before and after monitoring indicates that the volume of traffic through the two junctions has increased by between 6 to 12 per cent, average queue lengths have reduced by two thirds, and typical pedestrian wait times have been reduced by half. Councillors recently endorsed the permanent removal of these traffic lights. The Camden scheme has also been widely accepted as a success and a 'before and after' report is awaited from the borough.

5.3 It is evident that there may be some locations where traffic signals are no longer justified and their removal may improve the movement of both traffic and pedestrians. London's local authorities were approached for their views on the general principle of signal removal and for examples of good practice in the type of measure that could safely replace traffic signals. Many were in agreement with the general principle, as was the London Councils Traffic Control Liaison Committee.

5.4 In order to stimulate and shape detailed discussions with the boroughs on the potential removal of unnecessary traffic signals, TfL undertook some initial analysis and has identified 145 sites that may no longer be useful in traffic, pedestrian or safety terms (24 on the TLRN and 121 on borough roads) and could potentially be removed.

5.5 TfL is currently discussing these locations in more detail with the relevant London boroughs to ensure there is a clear understanding of the demands of all road users and any local issues, for example the needs of schools, hospitals, and local communities, to determine whether these traffic signals would be valid candidates for removal. Where both TfL and the boroughs agree that the justification for a particular set of signals is weak and that alternatives might help smooth traffic and pedestrian movement, the next step will be to identify what might safely replace the traffic signals.

5.6 On borough managed roads, signals will only be replaced with other measures if the borough decides that is what it wants to do. Local consultation would be undertaken in all cases before signals are removed. The London Borough of Hammersmith and Fulham recently consulted on and agreed to remove one of the sites proposed by TfL, a pedestrian crossing on Shepherd's Bush Road. TfL is programming the removal of this site with the borough.

5.7 By removing traffic signals, there are a number of benefits that may be realised, including a reduction in maintenance costs paid by local authorities to TfL, potential savings in journey times, and urban realm enhancements.

5.8 Sites will be monitored to determine the impact of any signal removals, including the effect on safety and operation for all road users.

6 STOPPING THE GROWTH OF TRAFFIC SIGNALS ON THE TLRN

6.1 As outlined above, TfL has identified 24 traffic signals sites that could potentially be removed from the TLRN. This is not an exhaustive list and it is expected that more traffic signals will be identified when a site is being investigated for modernisation, for a highway scheme, or for a timing review.

6.2 Most of the sites nominated for removal on the TLRN are lightly used junctions or pedestrian crossings, where speed reduction measures such as raised tables, priority junctions and uncontrolled crossings could provide safe and accessible replacements to signals.

6.3 Subject to consultation, five of these sites could potentially be removed from the network by mid-February 2011. The remaining sites require alternative provisions for pedestrians and proposals will be developed and programmed for implementation, subject to available funding and consultation.

6.4 In the longer term, TfL proposes to stabilise the number of traffic signals on the TLRN by ensuring that there is no net growth in the number of signals on the network. This will be achieved by balancing the number of new installations against signal removals. TfL's ambition is to achieve single-figure growth in the current financial year.

7 SUSTAINABILITY IMPLICATIONS/EQUALITY AND INCLUSION IMPLICATIONS

7.1 Traffic lights have a role to play in regulating traffic flow, helping to keep pedestrians moving and in improving safety. However, in some locations, particularly at smaller junctions or on minor roads, there can be economic, pedestrian and traffic smoothing benefits in removing traffic signals. There are opportunities to reduce stop/start traffic conditions and reduce delays to pedestrians, hence improving both amenity for crossings connecting segregated communities (e.g. on routes to schools) and reducing emissions.

8 LEGAL/FINANCIAL/CROSS-MODAL

8.1 Section 276 of the GLA Act 1999 provides for TfL to approve and carry out work to provide new traffic light installations requested by London Borough Councils unless TfL considers there are reasonable grounds for refusing to do so. In addition, TfL shall consult the London Borough Council responsible for the road on which it intends to install new signals or change the operating conditions of any existing traffic light installations.

8.2 Signal removal is not funded as a discrete project or programme, so existing funding streams would need to be used by TfL clients and by boroughs to fund the traffic schemes replacing traffic signals.

8.3 The average estimated cost of removing a traffic signal is £6,000 per site. This cost does not include the replacement of the signals with appropriate and safe traffic management measures (zebra crossings, pedestrian refuges, priority junctions, speed tables etc.) that have yet to be designed. However, it is anticipated that these costs will be met from within existing funding provisions (e.g. borough LIPs allocations, substituting funding identified for future signal modernisations to pay for removal, and/or diverting resources identified for new installations no longer being taken forward). The LIP Guidance issued in May 2010 encourages boroughs to consider removing any existing traffic signals that are no longer considered necessary or are no longer serving the purpose for which they were originally introduced.

9 RECOMMENDATION

9.1 The Panel is asked to NOTE the paper.

10 CONTACT

10.1 Contact: Garrett Emmerson, Chief Operating Officer, London Streets
Number: 020 3054 0189
Email: GarrettEmmerson@tfl.gov.uk