

TRANSPORT FOR LONDON

SURFACE TRANSPORT PANEL

**SUBJECT: SMOOTHING TRAFFIC FLOW**

**DATE: 24 FEBRUARY 2009**

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**1 PURPOSE**

1.1 The purpose of this paper is to inform the Panel of the work being undertaken by Surface Transport in support of the Mayor's ambition to smooth traffic flow, as announced in *Way To Go!* in Autumn 2008.

**2 BACKGROUND**

2.1 Within the wider agenda of 'keeping London moving', 'smoothing traffic flow' has been defined by the Mayor as delivering improvements to journey time reliability and predictability, including tackling stop-start driving conditions. It also extends to improving conditions for pedestrians.

2.2 The possible interventions that the Mayor has outlined to achieve these ends are:

- (a) reviewing the number and phasing of traffic signals, without prejudice to pedestrians;
- (b) tackling road works;
- (c) tackling pavement obstructions; and
- (d) parking and loading arrangements.

2.3 Current work is primarily concerned with testing the effectiveness of these and other interventions.

**3 POLICY CONTEXT**

3.1 Smoothing traffic flow is one of a number of the Mayor's priorities for the street network in London, under the wider policy objective of being fair to all road users:

*We want to be fair to all modes, and we believe we can do this by improving public transport, increasing safety, smoothing traffic flow, encouraging cycling, speeding the development of urban realm projects and thereby making the city easier to get around and more liveable. (Way To Go!)*

3.2 Smoothing traffic flow does not, however, mean promoting car use. The aim of this work is to improve conditions for existing road users, not to create additional capacity that would increase car journeys.

3.3 Indeed, it needs to be consistent with the overriding need to promote more efficient, environmental and economic forms of travel:

*Our job is not to punish the motorist, by treating every car journey as a sinful act. It is to help people to recognise that there are cleaner, greener, cheaper and more efficient alternatives. And where those alternatives do not exist – as in many parts of outer London – our job is to supply them. Our ambition is to help people out of their cars by persuasion, not persecution. (Way To Go!)*

## **4 KEY ISSUES FOR ANALYSIS**

4.1 Potential policy interventions are grouped under four main headings:

- (a) improve efficiency of operation of network;
- (b) help users make informed choices;
- (c) encourage shift to most efficient modes; and
- (d) fit for purpose road network.

4.2 Within these areas, it is recognised that there are a number of measures that could improve the efficiency of the network, not least TfL's increased control over road openings through the permit scheme for roadworks currently being discussed with the DfT.

4.3 TfL could also achieve a great deal through improved communications with road users, which is the objective of the Road User Information Strategy, developed within Surface Transport.

4.4 The major constraint on the effectiveness of these interventions is the likely level of suppressed demand for use of the road network, such that any capacity released through greater efficiency, including shifting journeys to more efficient modes, may be lost through additional car journeys.

## **5 CONCLUSION AND NEXT STEPS**

5.1 Smoothing traffic flow is a key Mayoral priority that is now a major programme of work within Surface Transport. There are a number of activities taking place within an overall framework (outlined in the presentation attached) to deliver the Mayor's commitments in *Way To Go!*

5.2 Policy development work will continue over the coming months, alongside communications with key stakeholders and delivery partners. It is anticipated that a conference could be held in the summer to outline a plan of action to be delivered largely by TfL and the boroughs.

## **6 RECOMMENDATION**

6.1 The Panel is asked to NOTE the report.

## **7 CONTACT**

7.1 Contact: Dick Hallé, Director of Strategy, Surface Transport  
Phone: 020 3054 0319

A blurred photograph of a busy city street, likely in London, featuring a red double-decker bus on the left and several pedestrians walking on a sidewalk. The image is used as a background for the title slide.

# Smoothing Traffic Flow

24 February 2009

David Brown

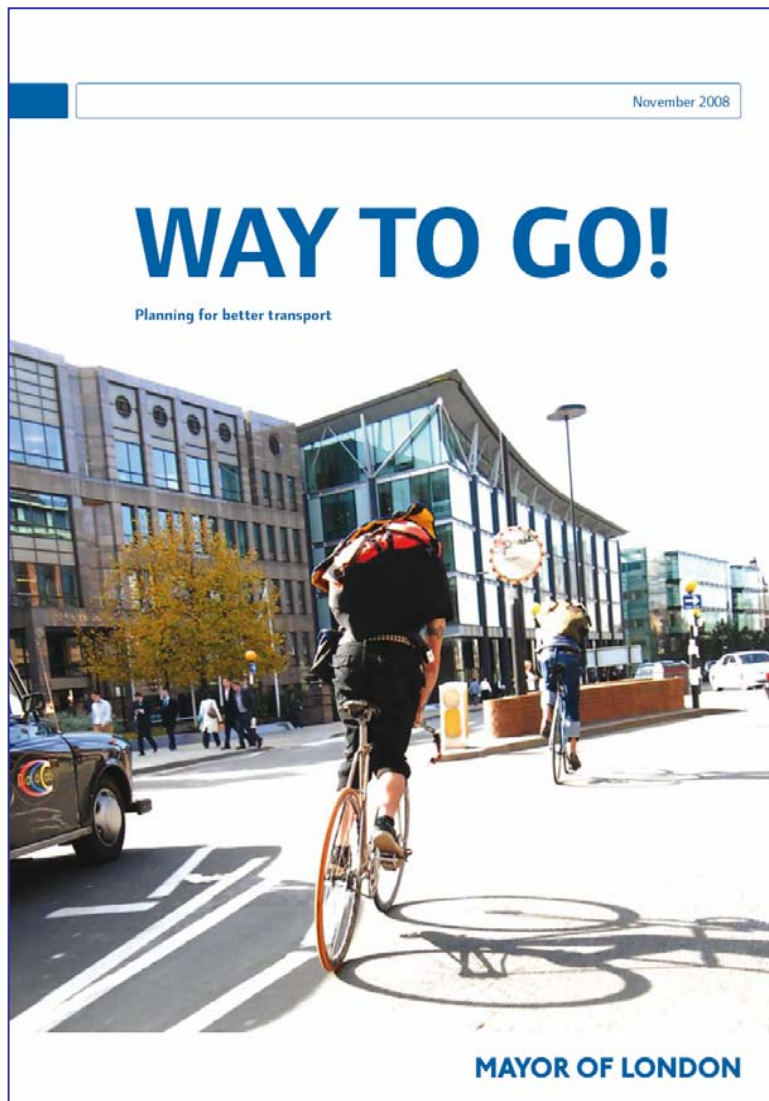
Presentation to the Surface Transport Panel

# Way to Go: Getting London moving

- Launching a War On Roadworks, complete with a new permit scheme
- Seeking fitting financial penalties for needlessly unattended holes
- A New Routemaster bus to replace the log-jamming bendy
- Reviewing traffic lights, without compromising the rights of pedestrians
- Moving on from the road hump – a traffic calming method that has had its day
- Exploring new ways of preventing deliveries from choking traffic
- Giving motorbikes a trial period in bus lanes



# Easier and more reliable journeys



Fewer parked freight vehicles clogging up the streets

Less clutter on the pavement so I'm not slowed down

Fewer road openings obstructing the traffic

Less time spent waiting for lights to turn green

Fewer traffic lights

More time moving rather than stopping

# Overall programme for action

## Work in-hand

### Planning

- Appraisal of small schemes against new Mayoral priorities

### Signals

- Reviewing traffic lights

### Road works

- Advance planning - encouraging boroughs and utilities to plan and co-ordinate works better
- Improved works noticing - fixed penalty notices to influence compliance

## Develop a full list of 'things' we can do

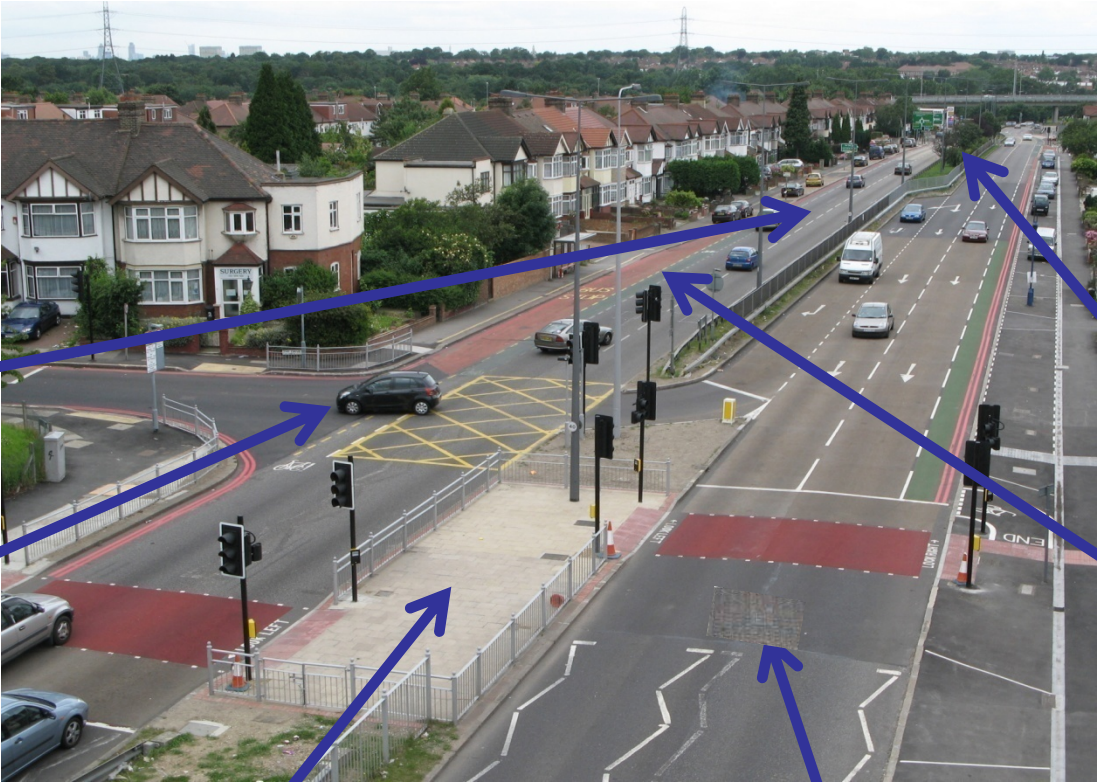
- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• Signal removal</li><li>• Roadworks permit scheme</li><li>• Plating excavations</li><li>• Parking and loading</li><li>• Closure of access roads</li></ul> | <ul style="list-style-type: none"><li>• Information</li><li>• Signage</li><li>• Street furniture</li><li>• 20mph zones</li><li>• SCOOT</li><li>• Pedestrian countdown</li></ul> |
|--|---|

## Present alternative packages of actions

*How do we apply these measures coherently and sensitively across London?*

- What do different approaches to the road network produce in terms of costs and benefits?
- Which are easiest or quickest to deliver?
- Which cause the biggest conflicts?
- Where are there synergies?
- Which are riskiest?
- How can they be applied to different urban contexts?

# Objectives for the road network



Mainly 'link' functions

Movement of through traffic

Crossing traffic

Safety

Utility access

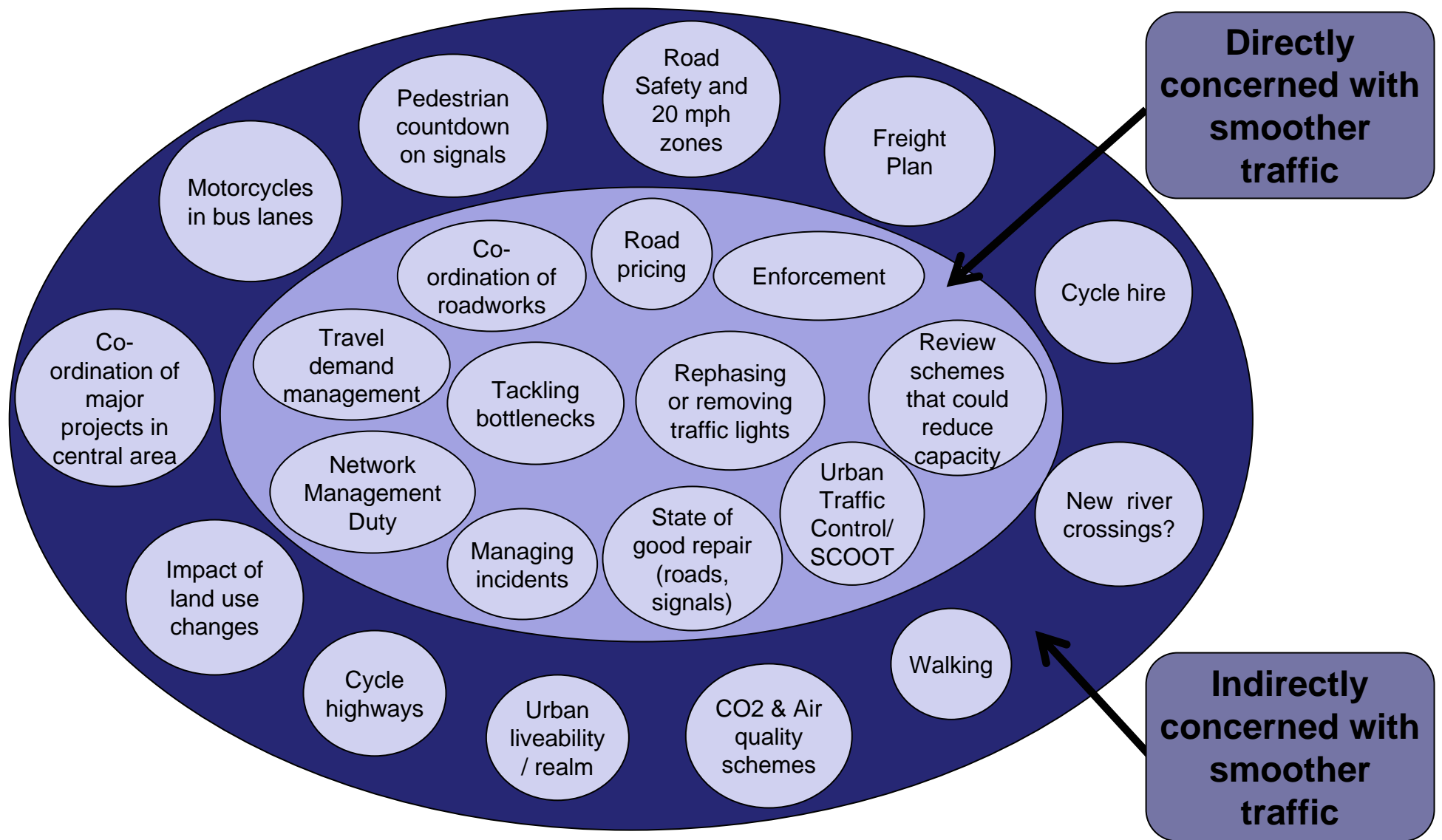
Cross-cutting functions

Mainly 'place' functions

Environment

Stopping –  
Parking –  
Loading –  
Service deliveries

# Interactions between policy levers





# Four linked themes

## Improve efficiency of operation of network

- Signal timing review
- Pedestrian Countdown
- LTCC/SCOOT
- Enforcement
- Londonworks/permit scheme
- Incident management

Improve traffic operations

Improve journey information

## Help users make informed choices

- Variable message signs
- Real time information
- Satellite navigation systems and interfaces
- Journey Planner

## Fit for purpose road network

- State of good repair
- Road space allocation
- Integrated schemes
- Managing bottlenecks
- Junction improvements

Improve road network

Encourage mode shift

## Encourage shift to most efficient modes

- Bus services
- Marketing/info on advantages of bus, walk, cycle
- Cycle training/safety campaigns
- Road safety campaigns

# Improve efficiency of operation of network



- Signal timing review
- Pedestrian Countdown (with DfT)
- London Traffic Control Centre/SCOOT (adaptive junction control system responsive to traffic flow)
- Enforcement  
Londonworks/permit scheme
- Incident management (with support from Highway Maintenance Works Contracts and MetroComm)

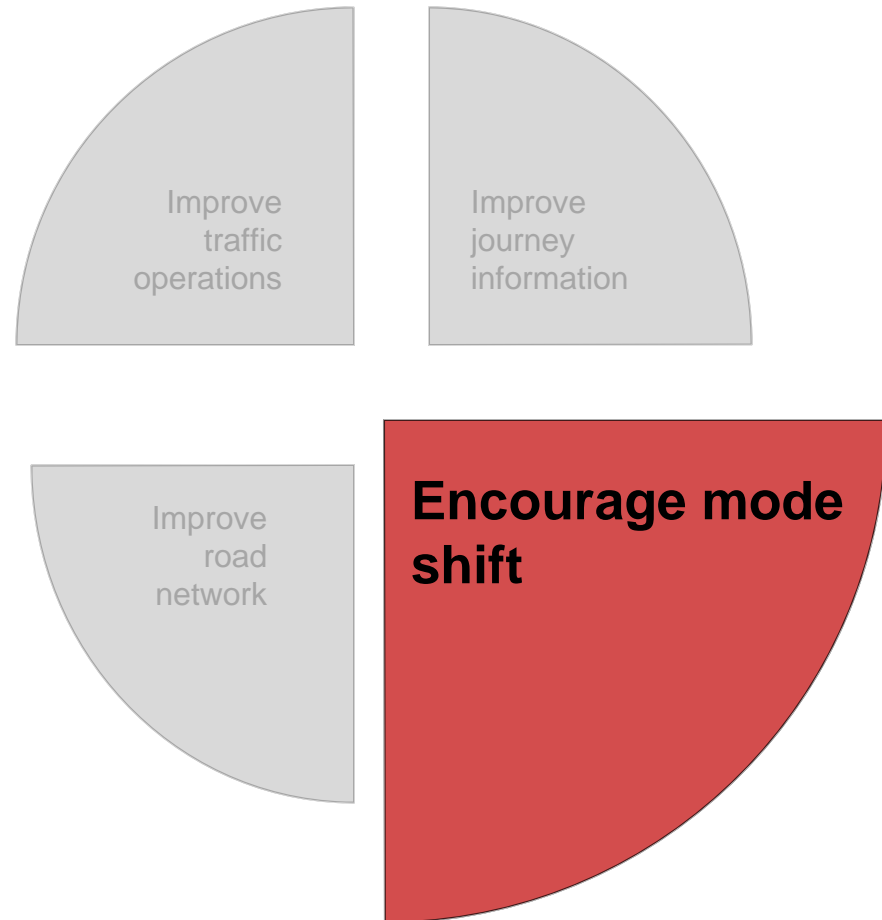
# Help users make informed choices

- Variable message signs
- Real time information
- Traffic Radio
- Journey Planner

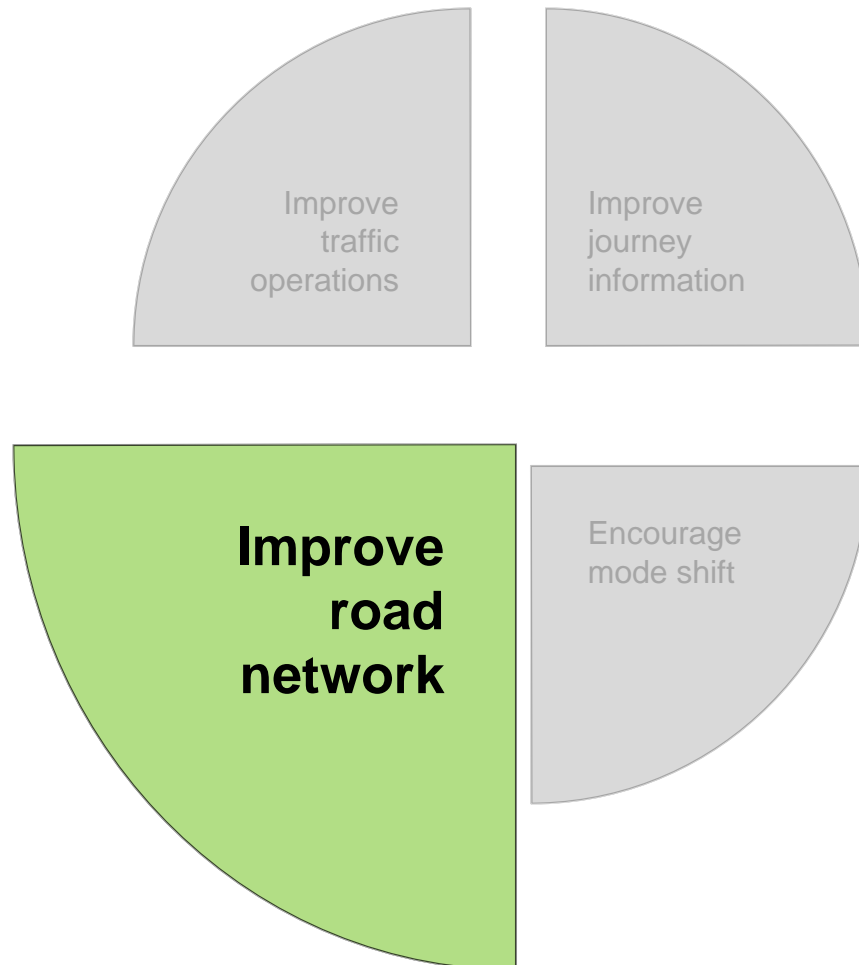


# Encourage shift to most efficient modes

- Bus services
- Marketing / info on advantages of bus, walk, cycle
- Cycle training/safety campaigns
- Road safety campaigns



# Fit for purpose road network



- State of good repair
- Road space allocation
- Integrated schemes
- Managing bottlenecks
- Junction improvements

# Sensitive application across network

## **Busy streets (central London, town centres, major interchanges, mixed use streets)**

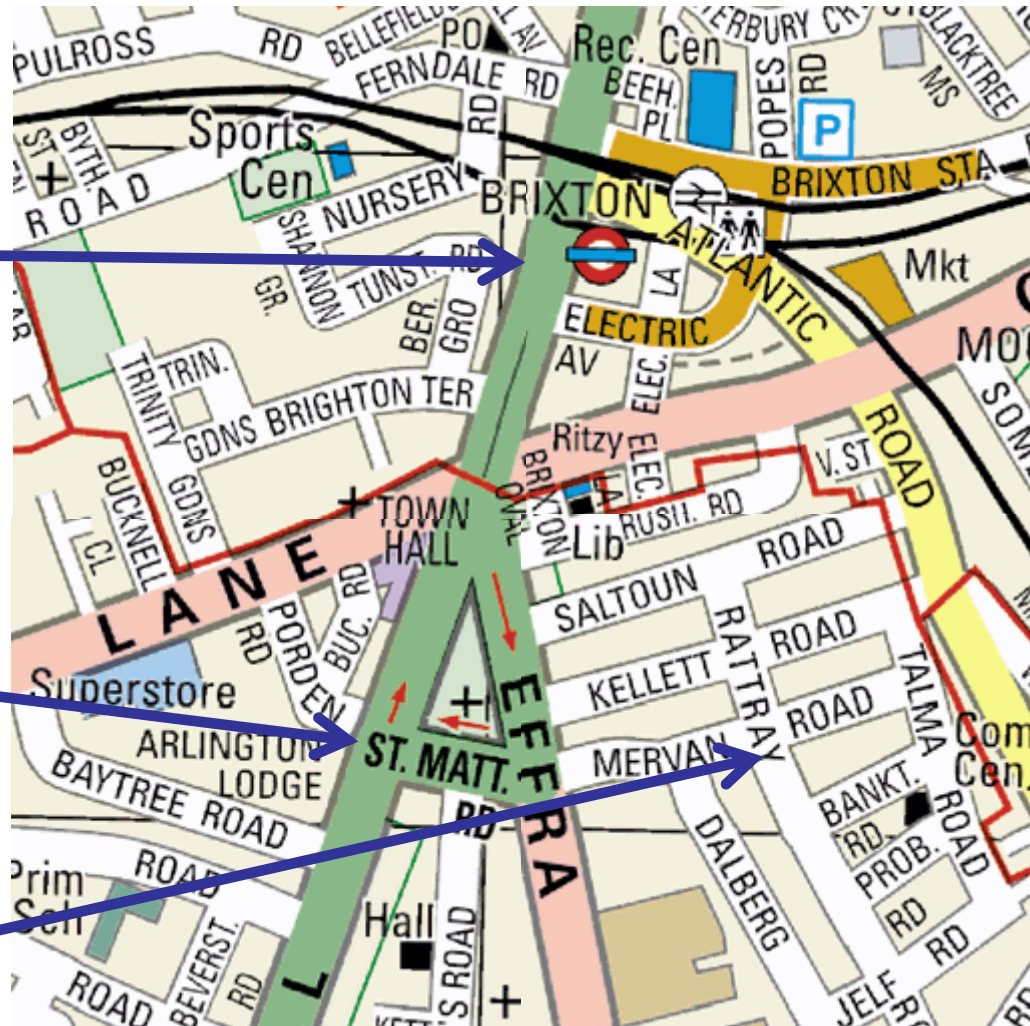
- Conflicting requirements are greatest
- Therefore the need to promote space-efficient modes – bus/walk/cycle priority
- Parking controls will also help to smooth traffic flow.

## **Main road network**

- Target effective operation – with a balance of managing roadworks, enforcement, parking/loading, signals and information as our key short term levers

## **Residential areas**

- Safety and promotion of healthy modes for short trips are uppermost



# Potential benefits and key risks

Potential Outcomes / Success Factors	Measures (Londonwide/sample routes)	Risks/Implications
Faster Journey Times / Reliability	Area Speeds Route-based journey times # of non emergency open works on TLRN in peak hours	TfL control limited Generated traffic
Less Stopping (Greenwave at speed limit)	Route segment journey time # of signals in green wave	Peak direction only Cross movements suffer Pinch-points constraint
Shorter Traffic Queues	Additional Green Time to Traffic Reduced degrees of saturation (# of signals < 90% Sat)	Site specific Pedestrian impact Pinch-point constraint Generated traffic
Safe Journeys	Collisions Injury Severity Pedestrian Collisions	Potential conflict with increase in traffic green
Short Wait to Cross Road	Cycle time (distribution)	Potential conflict with increase in traffic green

# Related policy work

Workstream	Nature of work
MTS2	will provide a high level strategic framework, but will not be in place until 2010.
Sub regional plans	will provide a more nuanced approach within each area, but will be finalised after MTS2.
Smoothing Traffic Flow	filling a gap in the policy development process, by looking at the next few years.
Network Management Duty	an ongoing process of engagement with the boroughs to agree reporting mechanisms, and also areas for consistent policy approaches across borough boundaries.



# Summary of Smoothing Traffic Flow policy work

	<b>PART ONE: KEY PRELIMINARY QUESTIONS</b>	<b>PART TWO: BUILDING THE NARRATIVE</b>	
<b>WP1 – Project Scope and Definition</b>	<p><b>1. What is the scope of this work?</b></p> <ul style="list-style-type: none"> <li>• <i>TLRN only?</i></li> <li>• <i>TLRN and signals?</i></li> <li>• <i>TLRN, signals and borough roads?</i></li> </ul> <p><b>2. What is ‘smoothing traffic flow’?</b></p> <ul style="list-style-type: none"> <li>• <i>What is the Mayor’s expectation, in both policy direction and the drive for rapid changes in perceptions?</i></li> <li>• <i>What do road users want/expect?</i></li> <li>• <i>What do other stakeholders want?</i></li> </ul>	<p><b>4. Where are we now?</b></p> <ul style="list-style-type: none"> <li>• <i>Current facts, figures and calculations</i></li> <li>• <i>Spatial variations</i></li> </ul> <p><b>5. How have we got to where we are?</b></p> <ul style="list-style-type: none"> <li>• <i>Previous analysis explored this</i></li> </ul>	<b>WP3 – Recent Trends and Current Performance</b>
<b>WP2 – Summary Review of Causes of Congestion</b>	<p><b>3. What causes congestion?</b></p> <ul style="list-style-type: none"> <li>• <i>Recurrent - traffic volumes</i></li> <li>• <i>Non-recurrent - disruption</i></li> <li>• <i>Design - road space/time allocation policies</i></li> </ul>	<p><b>6. Where do we want to get to?</b></p> <ul style="list-style-type: none"> <li>• <i>What does ‘good’ look like?</i></li> <li>• <i>What does ‘acceptable’ look like?</i></li> <li>• <i>How does it feel to different customer segments of motorists? And to Londoners generally?</i></li> <li>• <i>What other approaches are there?</i></li> <li>• <i>Which ones offer the most benefits?</i></li> </ul>	<b>WP4 – Defining ‘end state’ and How We Might Get There</b>
		<p><b>7. How do we measure success?</b></p> <ul style="list-style-type: none"> <li>• <i>What do we currently measure?</i></li> <li>• <i>What are the best measures for the outcomes we are trying to achieve?</i></li> <li>• <i>What targets should we aim for?</i></li> </ul>	<b>WP5 – Performance Measures</b>

# Stakeholder Engagement

- **Continue smoothing traffic flow activities:**
  - Examination of traffic signals
  - London-wide permitting
  - Pedestrian Countdown progress with DfT
- **Stakeholder engagement**
  - Stakeholders' opinion on what 'traffic smoothing' means to them
  - Reaching a consensus on what is achievable and managing expectations
  - Workshops to take place with stakeholders in early 2009, culminating in a summer conference. Workshop participants will include Steve Norris and London First.
  - Key stakeholders are Boroughs and DfT as changes cannot be delivered without their input, buy-in and in many cases authority