



WEST MIDLANDS
COMBINED AUTHORITY

Transport Delivery Committee

Date	4 September 2017
Report title	Busting delay on the bus network - Bus stop rationalisation
Lead Member	Councillor Kath Hartley
Accountable Director	Steve McAleavy Director of Transport Services (interim) steve.mcaleavy@tfwm.org.uk 0121 214 7452
Accountable Employee	Danny Gouveia, Bus Scheme Development Manager danny.gouveia@tfwm.org.uk 0121 214 7288
Report to be/has been considered by	

Recommendation(s) for action or decision:

The Transport Delivery Board is recommended to:

- 1 Note work to develop a Strategic Action Plan to arrest the significant recent declines in bus speed and reliability across the West Midlands; and,
- 2 Approve a pilot to rationalise bus stops within the South Birmingham Network Review area, as set-out within the report, and pursuant to the emerging objectives of the wider Strategic Action Plan.

1.0 Purpose

- 1.1 To update Transport Delivery Committee on work to develop a Strategic Action Plan for the bus network and seek approval to pilot bus stop rationalisation on high frequency corridors in South Birmingham, in line with technical corridor studies completed for each route.

2.0 Background

The region's congestion challenge

2.1 Traffic in the West Midlands reached record levels in 2016 with 8.5 billion vehicle miles driven on the region's roads, beating the previous 2007 record. Inevitably, the corollary is record levels of peak hour congestion, rising markedly in three years up to 2015/16, as shown in figure 1 below.

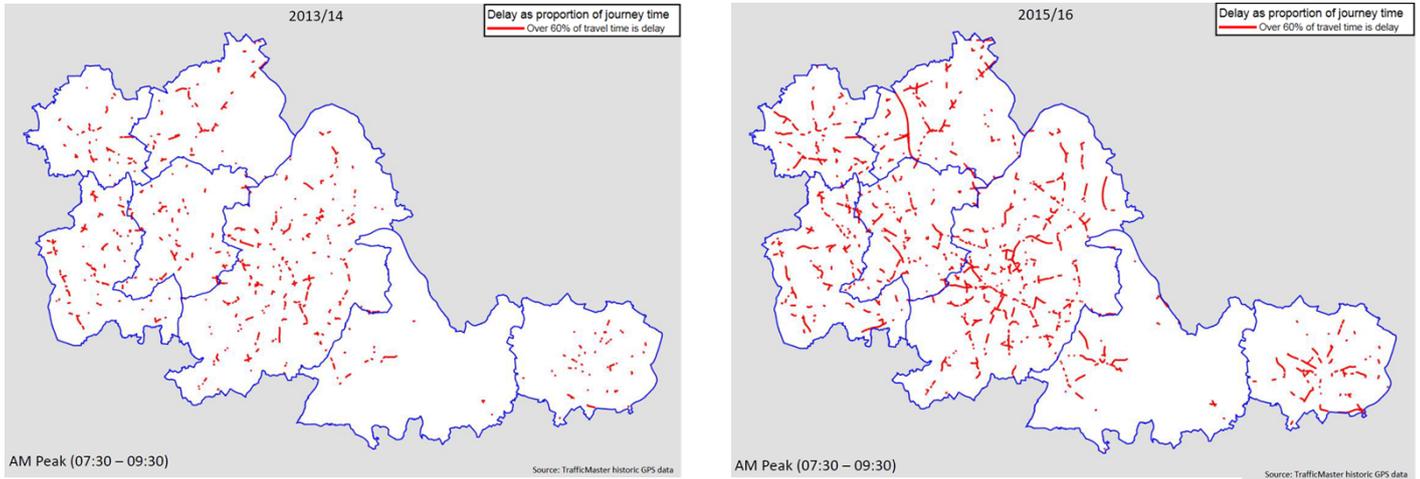


Figure 1 – Relative change in congestion - 2013/14 – 2015/16

2.2 The HS2 Growth Strategy and the region's Strategic Transport Plan *Movement for Growth* contain over-arching strategies to ensure all residents are within a 45 minute journey time of at least three strategic centres. Delivering this aggregated level of mobility will be critical in capitalising on the once-in-a-generation opportunity HS2 brings whilst also supporting the wider objectives of the Strategic Economic Plan to create 506,000 new jobs by 2030. Congestion, however, means that nearly 217,000 fewer people are within this target journey time by public transport, compared to 2011 - as shown in figure 2 below.

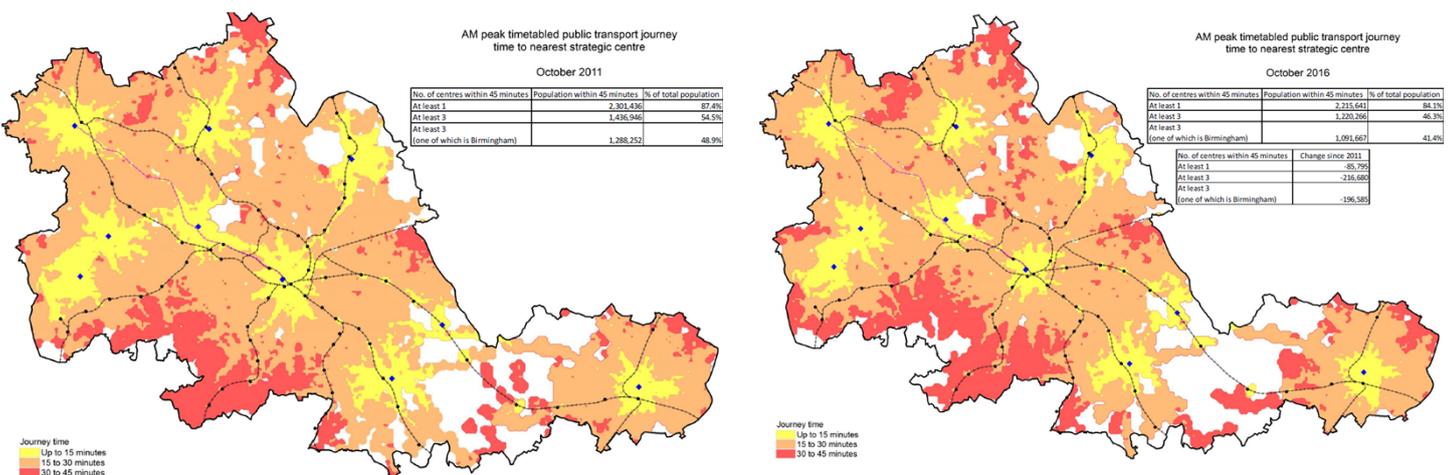


Figure 2 – Relative change in 45 minute public transport accessibility to strategic centres 2011 - 2016

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2.3 This picture is also set within the context of the imminent disruptive challenges from unprecedented levels of investment in the region, arising from the programmes within the WMCA Strategic Economic Plan (SEP), HS2 Phase 1, 2026 Delivery Plan and Highways England Road Investment Strategy. Whilst the region is preparing well for these challenges,

acute roadspace pressures remain in the short-term in managing the associated construction impacts.

The impact on the bus network

2.4 Average peak hour bus speeds in the region have reduced by 20% in the AM peak and 14% in the PM peak in the last three years. On some radial corridors, brisk walking now competes with bus for speed. Reliability has also suffered with more people waiting longer for buses that take longer to get to their destination. For example, figure 3 below shows journey time variability on the Bartley Green to Birmingham corridor in the AM peak; the worst 5% of journeys now take nearly 175% of the advertised timetabled journey time. Passengers therefore have little certainty on journey time, effectively having to factor the additional time in red as contingency.

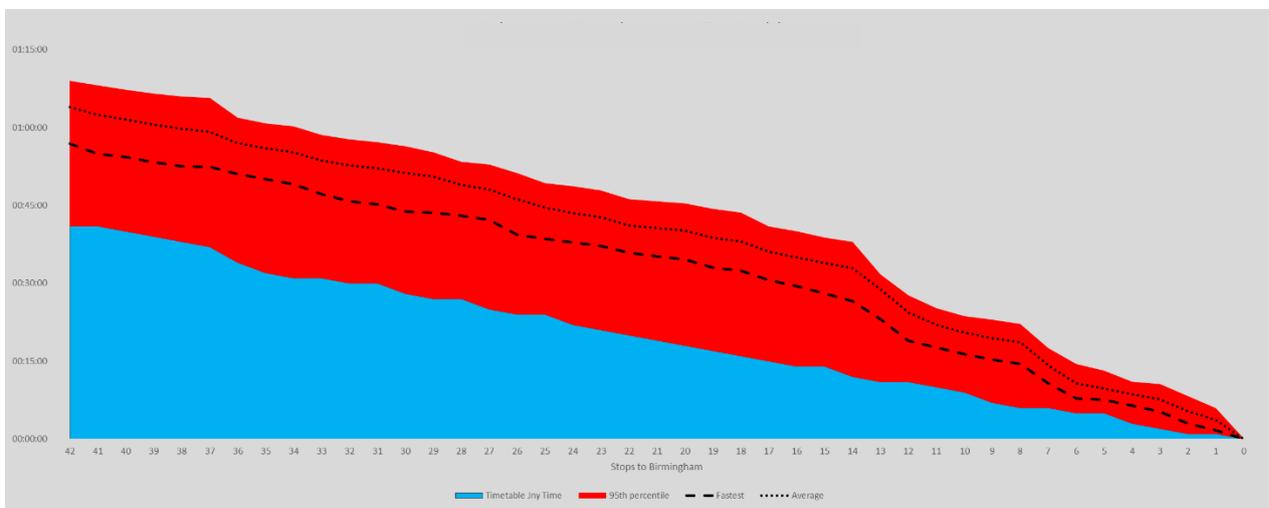


Figure 3 – Journey time variability – advertised journey time v real journey time

2.5 Bus users bear a disproportionate impact from congestion; they seldom have other route choices during periods of network delay and cannot readily compensate for poor reliability. It is perhaps unsurprising that a clear relationship between bus speed and patronage exists, where the progressive slowing of the bus network perpetuates a cycle of fewer bus passengers leading to more car trips and creating yet more congestion.

Delivering a strategic action plan for the bus network

2.6 Despite continued falling bus patronage in the region, four in every five public transport journeys continue to be made by bus. There can be no doubt that an efficient, effective and resilient transport system that unlocks the region’s ambitious growth potential is reliant on the bus network as its backbone.

2.7 Officers are therefore working closely with bus operators and district authorities to develop a *Strategic Action Plan* to respond to the challenges posed by congestion. The action plan will focus on establishing a framework to increase and sustain investment for highway schemes to improve bus speeds and reliability on key corridors.

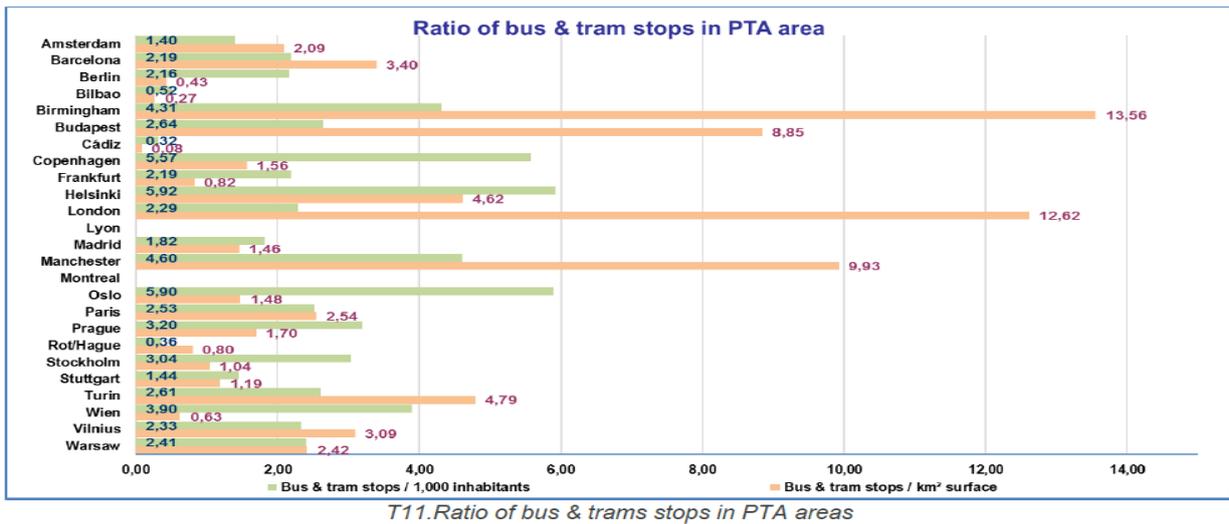
2.8 In positioning schemes to attract funding, the action plan will develop a robust evidence base, underpinned against alignment to wider local and regional policy objectives whilst, at

the same time, developing schemes to 'shovel ready' stage to allow the authority to quickly and positively respond to funding opportunities.

- 2.9 The action plan is currently under development and will be subject to further approval by Transport Delivery Committee. However, a number of investment themes are emerging to treat both the symptoms and causes of congestion on the bus network, comprising:
- Quick-wins
 - Delivery of intervention that could be mobilised quickly at congestion hotspots and network bottle-necks to realise immediate benefits to the highway network;
 - Possible early delivery of some Sprint intervention.
 - Optimising existing assets
 - Reviewing and optimising traffic signals, reviewing bus lanes.
 - Strategic bus priority
 - Development of strategic bus priority schemes to transform bus transit, focussed on connecting growth areas and catalysing benefit realisation of Metro/Sprint.
- 2.10 The action plan will be supported by Network Development Plans (NDPs) which will be produced for all areas in the region. NDPs will take a long term, spatial approach to planning the bus network to support growth and development. They will analyse proposed development sites, including details of numbers and phasing of houses and jobs growth and provide evidence to influence how major sites should best be served by bus and the associated transport infrastructure required to support bus access. NDP's will therefore provide important tool to support the action plan's delivery and help unlock new development with high quality bus access.

Bus stop rationalisation

- 2.11 An emerging programme under the quick-win theme comprises rationalisation of bus stops on those corridors most affected by recent increases in congestion. Whilst 90% of the region's urban area is within TfWM's adopted 400m 'access standard' to bus stops, a progressive incremental approach to bus stop installation over the years, as a result of ad-hoc customer/Member requests and land uses, means some locations are now over-served. Bus stops on some corridors are spaced as little as every 130m, providing significant over-provision relative to the adopted access standards.
- 2.12 This point is further reinforced in the graph below (European Metropolitan Transport Authorities barometer of public transport in the European Metropolitan Areas) showing the region (identified as the Birmingham PTA area) has the highest ratio of bus stop density in Europe.



2.13 It is clear that passenger densities and land use patterns have undergone a drastic change over the years where bus stops may not now be commensurate. Moreover, changes to highway layouts and lane designations have resulted in some bus stop locations not being fit for purpose by requiring difficult bus manoeuvres and/or causing buses to obstruct traffic flow.

2.14 Data from National Express West Midlands (NX) shows that a bus stopping at a bus stop to allow one passenger to board or alight can add 35 seconds to journey time. Where close bus stop spacing is combined with low levels of use, the aggregated effect of stop/start delay can materially add to journey time and compound reliability issues, benefitting relatively few passengers but disproportionately disadvantaging the majority.

Proposed bus stop rationalisation trial - South Birmingham Bus Network Review

2.15 At the same time as defining a possible bus stop rationalisation programme, NX approached officers about its intention to review the bus network in south Birmingham. The review is a direct response to increasing delay to buses and includes options to split existing services, remove some local services altogether and provision of new less frequent local routes. Members will be verbally updated on the results of the consultation at Committee.

2.16 As part of the review, NX has sought support from TfWM and Birmingham City Council (BCC) to identify and implement highway measures that could reduce congestion for buses and avert some of the more severe possible network changes. This has led to TfWM and BCC officers working closely to define and develop a package of highway interventions for the area. Work continues in this respect, with most schemes requiring further transport planning and approval.

2.17 This work has, however, so far identified several corridors over-served by bus stops and where quick-wins to increase bus speed and reduce journey time could be achieved by their rationalisation. The corridors include:

- 8a/8c – Inner-circle;
- 50 - Alcester Road;
- 45/47 - Pershore Road;

- 63 - Bristol Road; and,
- 6 – Birmingham to Solihull (A34 & B4102)

- 2.18 A study has consequently been commissioned to specifically review bus stop locations along these corridors against a number of metrics covering:
- TfWM adopted bus stop access standards;
 - Relative levels of use (according to fare stage);
 - Accommodating future development;
 - Connectivity to local services and facilities; and,
 - Interchange to other transit.
- 2.19 The study concluded that a significant number of bus stops could be removed along the corridors without affecting the adopted 400m access standard nor connectivity to key local services/facilities and/or interchange to other transit. Importantly, unlike other types of highway intervention to prioritise the bus, rationalisation of bus stops can be implemented quickly and cost effectively, realising immediate benefits for the bus network.
- 2.20 Technical studies have been completed for each route, identifying the specific bus stop locations recommended for removal. Hard copies of the report will be available at the Committee meeting and on the CA website.
- 2.21 As part of NX's consultation for the South Birmingham Network Review, it has asked '*should [NX] consider taking carefully selected stops out of routes to help speed them up?*' To date, NX has received 3,000 responses to the consultation with over 70% of respondents supportive to the removal of carefully selected stops.
- 2.22 With all of the above in mind, it is proposed to pilot bus stop rationalisation within the South Birmingham Bus Network Review area. This is in accordance with the recommendations of the technical studies contained in Appendix A and the wider emerging strategic action plan to ameliorate the challenges of congestion to the bus network.
- 2.23 As the proposal would effectively form a trial, it is not proposed to physically remove any stops at this time. Instead, bus stops would be closed using barriers with clear signage erected two-weeks prior to commencement to notify passengers of closure. This will be further complemented by a full communications strategy.
- 2.24 It is proposed that the pilot operates for a period of six months, between late September 2017 and late March 2018. Bus performance, in terms of patronage, journey time, reliability and variability will be assessed on a monthly basis whilst customer feedback will be closely monitored throughout the period. A full monitoring report and proposed next-steps will be reported to Transport Delivery Committee in spring 2018.

Impact of bus stop rationalisation not being implemented

- 2.25 Without highway mitigation to improve the efficiency of the bus network in south Birmingham, significant changes to bus services will be required. As described above, this could include splitting existing services, removing some local services altogether and provision of new less frequent local routes.

- 2.26 The proposed bus stop rationalisation pilot forms a critical part of the highway mitigation package. Whilst the more substantive highway changes will take time to mobilise and deliver, bus stop rationalisation can be delivered very quickly, realising immediate improvements to bus services on high frequency corridors.
- 2.27 This mitigation programme will ensure existing levels of services can be maintained on high frequency corridors without the need for additional resource. In turn this reduces the likelihood of resource from marginal services on local routes being reduced and transferred to other higher priority corridors.

3.0 Impact on the Delivery of the Strategic Transport Plan

- 3.1 The proposed pilot will support the bus network by treating some of the symptoms of existing severe congestion in South Birmingham and forms part of a wider strategy aimed to release the bus network from congestion. The impact of the contents of this report on delivery of the 15 STP Policies and/or the development/operation of:
- The National & Regional Tier
 - The Metropolitan Tier
 - Rail and Rapid Transit Network
 - Key Route Network
 - Strategic Cycle Network
- 3.2 The policies that are supported include:
- Policy 1 - Accommodate increased travel demand by existing transport capacity and new sustainable transport capacity;
 - Policy 2 - Use existing transport capacity more effectively to provide greater reliability and average speed for the movement of people and goods;
 - Policy 3 - Maintain existing transport capacity more effectively to provide greater resilience and greater reliability for the movement of people and goods.
 - Policy 6 – To improve connections to areas of deprivation.
 - Policy 8 – To improve connections to new housing development locations to help them flourish, primarily through sustainable transport connections.

4.0 Wider WMCA Implications

- 4.1 The emerging strategic action plan to support the bus network will promote bus use through mode transfer thereby accommodating anticipated increases in travel demand expected by the SEP and HS2 Growth Strategy. Bus stop rationalisation forms a package of this wider strategy by cutting journey times and improving reliability on key high frequency bus corridors.

5.0 Progress, options, discussion, etc.

- 5.1 As outlined above, it is proposed that the pilot operates for a period of six months, between late September 2017 and late March 2018. Bus performance and customer feedback will be closely monitored in this time. A full monitoring report and proposed next-steps will be reported to Transport Delivery Committee in spring 2018.

6.0 Financial implications

6.1 There are no direct immediate financial implications as a result of this report. No physical removal of bus stops are included within the pilot. There are, therefore, no capital expenditure implications as a result of the report.

6.2 In the event of the trial being successful, permanent bus stop closure and infrastructure removal will be subject to a further report, identifying:

- initial capital costs/implications for removal
- revenue income implications in removing stops with advertisements
- future whole life revenue cost savings associated with maintenance/replacement/energy savings.

7.0 Legal implications

7.1 There are no legal implication arising directly from the contents of this report.

8.0 Equalities implications

8.1 Potential stop closures/removals may have a negative impact on accessibility especially for older and disabled customers as well as parents with young children. However, without measures to improve the efficiency of the bus network in South Birmingham, significant changes to the bus services are likely which could split services and potential focus buses on key corridors at the detriment of local bus services. This would have significant equality impacts on the most vulnerable passengers.

8.2 During the south Birmingham pilot, officers would carefully monitor and listen to feedback from vulnerable customers around the impact of bus stop rationalisation on their accessibility. This feedback may result in the final proposals changing as well as shaping a potentially wider roll-out of the programme.

8.3 A full equality impact assessment of a potential wider programme of rationalisation will be completed to identify risks and key equality considerations and will be provided as an update at Committee.

7.0 Other implications

7.1 Whilst the bus stop rationalisation proposal substantively focusses on South Birmingham, the A34 Stratford Road corridor extends into Solihull. Closure of any bus stops within Solihull will be subject to further consultation with Solihull's Cabinet Member for Transport and Highways (Cllr Ted Richards).

8.0 Schedule of background papers

8.1 None

9.0 Appendices

Appendix A - Equalities Impact Assessment (to follow as update at meeting)