



Cabinet (Resources) Panel

29 July 2014

Report title	Urban Traffic Control Major Scheme: Journey Time Monitoring	
Decision designation	AMBER	
Cabinet member with lead responsibility	Councillor Peter Bilson Economic Regeneration and Prosperity	
Key decision	No	
In forward plan	No	
Wards affected	All	
Accountable director	Tim Johnson, Education and Enterprise	
Originating service	Transportation	
Accountable employee(s)	Lydia Barnstable	Head of Transportation
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Report to be/has been considered by	Education and Enterprise Management Board	12 June 2014
	Strategic Executive Board	04 July 2014
	Executive Team	25 July 2014

Recommendation(s) for action or decision:

The Cabinet (Resources) Panel is recommended to:

1. Approve the proposals regarding the implementation of a journey time monitoring system (JTMS) within Wolverhampton associated with the West Midlands Urban Traffic Control Major Scheme (UTCMS).
2. Approve the proposed locations of the associated automatic number plate recognition (ANPR) cameras for journey time and traffic control monitoring purposes.

Recommendations for noting:

The Cabinet (Resources) Panel is asked to note:

1. The system will be used for traffic management and not enforcement purposes, however, should the police request use of the system for enforcement, a further report will be submitted for consideration.
2. The journey time monitoring system (JTMS) is one of the final work streams of the Urban Traffic Control Major Scheme (UTCMS); the scheme is due to finish on 30 September 2014.
3. The work streams associated with the scheme are grant funded by the Department for Transport and previously approved by the Planning and Transportation sub-committee in accordance with the agreed governance structure for the project.

1.0 Purpose

- 1.1 To seek approval to implement a journey time monitoring system (JTMS) within Wolverhampton as part of the West Midlands Urban Traffic Control Major Scheme (UTCMS).

2.0 Background

- 2.1 The UTCMS commenced on 1 September 2008 and is due to finish on 30 September 2014 with the following West Midland local authorities: Birmingham City Council, Dudley Metropolitan Borough Council, Coventry City Council, Sandwell Metropolitan Borough Council, Solihull Metropolitan Borough Council, Walsall Council, and Wolverhampton City Council. The scheme was allocated a project program budget of £26.6 million grant funded by the Department for Transport. Approvals for each of the UTCMS work streams were previously approved by the Planning and Transportation sub-committee in accordance with the agreed governance structure for the project.
- 2.2 The purpose of the UTCMS is to support and enable joint management of the West Midlands strategic highway network. A principle aim is to reduce traffic congestion and meet the requirement of the Traffic Management Act 2004. The UTCMS scheme covers 21 strategic routes across the West Midlands with project aims achieved through:
- Upgrading all the local West Midlands Urban Traffic Control centres to improve communications between the centres, and cross boundary co-operation.
 - UTCMS compliant upgrades to on-street equipment situated on the strategic routes.
 - Use of variable message signs (VMS) at key locations for re-routing and provision of traffic information to the travelling public.
 - Replacement of legacy communication technology with wireless technology.
 - Use of technology to enhance the performance of the UTC systems by proactive management that responds to real time information of incidents on the network using live data from a Journey Time Monitoring System (JTMS). The JTMS is one of the final work streams of this scheme.
- 2.3 The journey time data is calculated using video based technology with ANPR cameras mounted on existing street lighting columns. The image processor captures the vehicle registration number (VRN) and the processing system encodes this information as a unique reference number (URN) with the source VRN subsequently discarded once the system has recognised that the VRN vehicle leaves the journey time monitoring area. This process provides data anonymity as the VRN cannot be accessed from the system. The system does not capture, store or transfer any images, the time, date, location and 'hashed' plate data from each camera will be the only data displayed. This information will be used for traffic management and to inform the use of VMS on strategic routes and on-line travel information for the travelling public of travel times and incidents on the network.

- 2.4 The system is designed to monitor traffic congestion on key arterial routes, reduce congestion and improve the traffic management infrastructure by enhancing the provision of traffic and travel information. Drivers have the ability to make informed decisions to re-route, as the information provided on the roadside VMS displays the routes average real time journey time. To reduce congestion, the data will also assist with strategic urban traffic control provision as operators have the ability to assess the average journey time along the route and manually alter traffic signal timings to improve the flow of traffic; this will also help to detect incidents on the highway and analyse the performance of the network. Research indicates that the data also supports traffic modelling practice and encourages sustainable transport.
- 2.5 The JTMS design has been extensively tested in Solihull prior to roll out across the West Midlands metropolitan area. This has enabled the assessment of the operational performance and method of integration to traffic management tools used within Urban Traffic Control centres. The technology and approach proposed is also one which is being used elsewhere in the UK such as Bristol City Council, Essex County Council, Gloucestershire County Council, Greater Manchester and Oxfordshire County Council. Research identifies that in order to ensure accurate and reliable journey time calculations, the location of the ANPR camera is a critical element. Positive feedback from members of the public has also been received with the output of data published on VMS. Overall, the JTMS is considered as a valuable addition to the traffic management strategy.

3.0 Progress, options and discussion

- 3.1 It is important to stress that the JTMS will be used for traffic management purposes only and is a key component to monitor the performance of the strategic urban road network by determining journey times across defined routes and cross-boundary.
- 3.2 The Wolverhampton JTMS comprises 28 cameras. Consideration has been given to the key points on strategic routes and the position of VMS to determine the ANPR camera locations. The system will record the vehicle journey times on the main routes to and from the ring road within Wolverhampton at the following locations:

Location		JTMS Cameras
A41 Bilston Road (inbound)	Nr Culwick Street	1
A41 Bilston Road (outbound)	Nr Culwick Street	1
A41 Chapel Ash (inbound)	Nr Brewery Road	1
A41 Chapel Ash (outbound)	Nr Brewery Road	1
A41 High Street (inbound)	Nr Great Bridge Road	1
A41 High Street (outbound)	Nr Great Bridge Road	1
A449 Penn Road (inbound)	Nr Penn Road Island	1
A449 Penn Road (outbound)	Nr Penn Road Island	1
A449 Penn Road (inbound)	Nr Vicarage Road	1
A449 Penn Road (outbound)	Nr Vicarage Road	1
A449 Stafford Road (inbound)	Nr Broadlands	1
A449 Stafford Road (outbound)	Nr Broadlands	1
A449 Stafford Road (inbound)	Nr Littles Lane	1

A449 Stafford Road (outbound)	Nr Little's Lane	1
A454 Willenhall Road (inbound)	Nr Horsley Fields	1
A454 Willenhall Road (outbound)	Nr Horsley Fields	1
A454 Willenhall Road (inbound)	Nr The Keyway	1
A454 Willenhall Road (outbound)	Nr The Keyway	1
A459 Wolverhampton Road East (inbound)	Nr Parkfield Road	1
A459 Wolverhampton Road East (outbound)	Nr Parkfield Road	1
A463 Black Country Route (inbound)	Nr Birmingham New Road	1
A463 Black Country Route (out-bound)	Nr Birmingham New Road	1
A463 Black Country Route (in-bound)	Nr Hare Street	1
A463 Black Country Route (out-bound)	Nr Hare Street	1
A4123 Birmingham Road (inbound)	Nr Lever Street	1
A4123 Birmingham Road (outbound)	Nr Lever Street	1
A4123 Birmingham New Road (inbound)	Nr Hessian Close	1
A4123 Birmingham New Road (outbound)	Nr Hessian Close	1
Total:		28

- 3.3 It is proposed that a press statement will be released and briefings held as appropriate in order to explain the objectives of the scheme. This will explain the very restricted use of the camera images and data for traffic management purposes only due to the sensitive nature and privacy concerns of the use of CCTV in public areas. Information signs will also be installed on all lamp columns with a traffic surveillance camera to outline the purpose of the scheme. The same signs will be used by all seven West Midlands authorities to give consistency.
- 3.4 In accordance with the 'surveillance code of practice', a privacy impact assessment has been conducted to assess the privacy risks to individuals in the collection, use and disclosure of information (appendix: A).
- 3.5 The installation and commissioning of the system is scheduled for summer 2014.
- 3.6 It is important to note that if the police request the use of the system for enforcement purposes, a further report will be presented for consideration.

4.0 Financial implications

- 4.1 Funding allocated from the scheme to Wolverhampton for the JTMS totals £173,250. This would allow the purchase of cameras, system design, installation and commissioning as well as information signage. The cameras will be connected via the wireless telecommunication system which is being installed across Wolverhampton as part of the UTCMS project. The annual maintenance of the JTMS is estimated at approximately £1,000 per annum, this will be funded from within the existing revenue budget for traffic signal maintenance. [TK/18072014/A]

5.0 Legal implications

- 5.1 The scheme supports the Council's statutory duty under the 'Traffic Management Act 2004' to facilitate the expeditious movement of traffic.

- 5.2 The operation of CCTV systems must be undertaken with due regard to legislation and practices. The authority's CCTV operators are fully trained and accredited for the management of surveillance systems. [RB/15072014/V]

6.0 Equalities implications

- 6.1 There are no equalities implications.

7.0 Environmental implications

- 7.1 This work stream will provide environmental benefits as the system aims to inform members of the public on VMS of the traffic conditions (times) on strategic routes. This is a significant tool to manage the network of the highway and reduce traffic congestion as motorists can make informative decisions to divert/re-route.

8.0 Human resources implications

- 8.1 The system will be managed by the UTC department, utilising the common database to action commands, schedule messages and set up strategies to ensure successful delivery.

9.0 Schedule of background papers

- 9.1 Education and Enterprise Management Board, 12 June 2014 'Briefing Paper: Journey Time Monitoring System'

Strategic Executive Board, 3 July 2014 'Urban Traffic Control Major Scheme: Journey Time Monitoring'

Appendix A: Privacy Impact Assessment

Name of Authority: Wolverhampton City Council

Location of Camera being assessed: ALL

Date of assessment: 16/06/14

Name of person responsible: B. Willis

Part A: Data Protection Act 1998 and Surveillance Camera Code of Practice

1	What is the organisation's purpose for using the CCTV and what are the issues that the system aims to address?	The cameras will be used for monitoring road traffic to determine journey times along a specific route. The information gained will be used for traffic management purposes and to inform the travelling public.
2	Can CCTV technology realistically deliver these benefits?	Yes
3	What are the views of those who will be under surveillance?	Not applicable, there will be no surveillance of any person.
4	Have other less privacy-intrusive solutions such as improved lighting been considered?	Not applicable for this application
5	What are the benefits to be gained from using CCTV?	The CCTV system used utilises ANPR technology and this is a well established method of determining vehicle journey times based on traffic speed and flow
6	What are the privacy issues arising from this surveillance camera system?	There are no privacy issues arising from the use of this technology.
7	What privacy design features will be adopted to reduce privacy intrusion?	The camera have been configured to not store or send images, it is configured to only send textual information. The camera will only retain textual information for the minimum time period. The camera cannot stream live video images. No images or video processed in the camera will be retained on the camera. The camera will be zoomed in to the centre of

		the lane and focused on the VRM area of the vehicle. The VRM information will be anonymised by “Hashing” the plate information. The cameras are self-contained and only accessible with a work access platform. The cameras are password protected.
8	What organisations will be using the CCTV images and who will take legal responsibility for the data under the Data Protection Act 1998?	No organisations will be using the images as no images or video will be fed out from the camera only textual “Hashed” VRM data is sent. No images or video will be stored on the camera. Wolverhampton City Council will be responsible for the data.
9	Do the images need to be able to identify individuals, or could the scheme use other images not capable of identifying individuals?	No. No images or video will be fed from the camera, only textual “Hashed” VRM data. No images or video will be stored on the camera. The camera will be zoomed into the centre of the lane and focused on the VRM area of the vehicle. The camera cannot stream live video images. No images or video processed in the camera will be retained on the camera.
10	Will the CCTV equipment being installed and the system of work being adopted be sustainable? Is there sufficient funding for the scheme?	Yes, the equipment is provided by the UTC Major Transport Scheme funding and future sustainability is taken into account as a provision of the scheme deliverables.
11	Will the particular system/equipment being considered deliver the desired benefit now and remain suitable in the future?	Yes, under the grant conditions of the UTC Major Transport Scheme the equipment must provide benefit and be sustained for up to 10 years post scheme completion.
12	What future demands may arise for wider use of Images and how will these be addressed?	Not applicable, images are not produced within the context of this system

Part B: Human Rights Act 1998

1	Is the system established on a proper legal basis and is it operated in accordance with the law?	Yes.
2	Is the system necessary to address a pressing need, such as public safety, crime prevention or national security?	Yes, the system is needed to manage congestion on strategic roads in Wolverhampton
3	Is it justified in the circumstances?	Yes, the Council is required under the provision of the Traffic Management Act 2004, to manage the expeditious movement of traffic on its roads.
4	Is it proportional to the problem that it is designed to deal with?	Yes, the system is targeted at strategic routes only.
5	Do any of these measures discriminate against any particular sections of the community?	No