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**By:** Sue Westwood, Traffic Systems Manager

**To:** Joint Transportation Board - June / July 2009

**Subject:** Urban Traffic Management and Control (UTMC) – ITP Submissions and Progress Report

**Classification:** Unrestricted

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**Summary:** This report is an information brief of the UTMC projects that are planned for Tunbridge Wells, Sevenoaks and Swanley during the financial year 2009/10 and / or 2010/11. The project will enable the Traffic Management Centre (TMC) in Maidstone to manage the network to help alleviate congestion.

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## 1. Introduction

- 1.1 Kent County Council has a long history of using Intelligent Transport Systems (ITS) to help it meet its transport policy objectives dating back to the early 1980's when Kent installed the first commercially purchased SCOOT systems in Maidstone.
- 1.2 ITS deployment has continued and Kent now have an established and well respected UTMC system and TMC to allow active traffic management strategies to be developed to tackle congestion across Kent in line with its Network Management Duty under the Traffic Management Act and the Towards 2010 target to Keep Kent Moving.
- 1.3 Examples of the ITS tools used in Kent include:
  - UTMC (an Envitia Cutlas Common Database);
  - Urban Traffic Control & SCOOT;
  - Remote Monitoring Systems;
  - CCTV ;
  - eLGIN Roadworks information;
  - Traffic flow, speed and classification sites;
  - Automatic Number Plate Recognition (ANPR) for journey time assessment;
  - Bus Priority & Real Time Information;
  - Car Parking Guidance;
  - Travel & Incident Information via Variable Message Signs (VMS) and website.
- 1.4 The focus for deploying UTMC equipment has been in Maidstone. The systems to manage the network for Maidstone are almost complete and plans are now underway to deploy similar equipment in other congested urban areas of Kent.
- 1.5 The aim of this report is to update the JTB on how Kent County Council intends to develop UTMC in other areas of the county.

## **2. Key Achievements**

- 2.1 The TMC have reported reduced journey times on some of the key routes and improved reliability of their journey times. The times of operation of the TMC have increased to 0630 - 1900 Monday to Friday and 0800 – 1700 on Saturdays.
- 2.2 The TMC now has access to the control and view images from the HA's CCTV cameras on Trunk roads throughout the county facilitating provision of information to stakeholders and road users as well as assisting in the management of incidents on the road network.
- 2.3 Automatic Number Plate Recognition (ANPR) data from the partnership with Kent Police is now on line providing the opportunity to give TMC operators early warning of problems on all the radial routes into Maidstone. Journey time data is now available in real time to monitor performance relative to the baseline data established in early 2007. The network has been expanded to cover Canterbury from which baseline journey time data will be established in the spring of 2009.
- 2.4 Joint working with the Highways Agency's (HA's) Regional Control Centre (RCC) is eliminating the artificial boundaries between the Trunk and county road networks. Establishing information exchange and co-operating in the management of traffic has reduced the impact on Maidstone town centre of problems on the M20 including extended periods when Operation Stack has been in place. Equally informing motorway drivers about road conditions in Maidstone have enabled them to avoid adding to congestion in the town centre.
- 2.5 Variable Message Signs now placed on key routes into Maidstone give advance notice of events and warn drivers of congestion enabling them to take alternative routes.
- 2.6 A programme of "Health checks" at key locations in the network has resulted in a programme of over 50 "quick win" improvements ranging from adjusting traffic signal timings to renewing white lines, each of which have helped to improve traffic flows.
- 2.7 Traffic flow monitoring sites on main roads in Maidstone and Canterbury provide continuous traffic speed and volume data to the TMC enabling early identification of congestion and monitoring of the impact of traffic diversions.
- 2.8 The average journey time per vehicle per mile on key radial routes in Maidstone during the AM Peak (0730 – 0930) has been reduced by 6.6%.

## **3. UTMC Implementation 2010 / 11**

- 3.1 As part of the Integrated Transport Programme, the local transport and development manager for Sevenoaks and Tunbridge Wells has submitted for Tunbridge Wells for £345k, Sevenoaks for £230k and Swanley for £230k. The funding will enable the UTMC equipment to be deployed, which in turn will enable the Traffic Management Centre to monitor and manage the network effectively. The funding for Swanley is required to enable the TMC to manage the connection from the Junction on the M20 into Swanley and the A20 junction. Appendix 1 provides the Glossary of Terms for UTMC, Appendices 2, 3 and 4 provides the financial breakdown and equipment required for Tunbridge Wells, Sevenoaks and Swanley during 2010/11.

**Background Documents:**

Glossary of Terms for UTMC  
Project Plan – Tunbridge Wells 2010/11  
Project Plan – Sevenoaks 2010/11  
Project Plan – Swanley 2010/11

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## APPENDIX 1

### GLOSSARY OF TERMS FOR UTMC

- **TMC** – Traffic Management Centre in Maidstone.
- **Health checks** – This involves validating existing traffic signal junctions to establish whether the traffic signal timings are correct for current traffic flows. It also involves reviewing existing road markings to identify if they need to be changed to improve traffic flows through junctions.
- **Traffic counts** – These sites are an important element of the UTMC equipment to enable the ITS Design Team to establish the flow going into the town centres.
- **CCTV** – Closed Circuit Television enables the TMC to have visual access to the network and make decisions on how best to manage the network.
- **Links to Control Rooms** – Where existing CCTV is operated by District and Borough Councils, the ITS team establishes a link to these cameras to enable them to be a shared resource.
- **ANPR** – Automatic Number Plate Recognition is essential to collate accurate journey times.
- **VMS** – Variable Message Signs enable the TMC to display free text messages relating to traffic and travel issues on the network.
- **Car Park Signs** – Car park signs are linked to counters entering and exiting public car parks, the number of available spaces is automatically displayed on the signs.
- **UTC** – Urban Traffic Control is a permanent connection to the traffic signal controller via BT telephone line. UTC allows the TMC to remotely connect to individual traffic signals junctions and check their status and amend plans or extend green times to alleviate congestion.
- **OMU** – Outstation Monitoring Units is similar to UTC except that the OMU is not a permanent device, the TMC need to dial up to the controller to enable them to amend plans or extend green times. The OMU is usually installed at remote sites where a permanent connection is not required.
- **RTI** – Real Time Information signs relates to the bus information system, where RTI signs are deployed to provide bus and network information.

- **Software enhancements** – is usually required as part of the countywide ITP submission where enhancements are required to the UTMC equipment and is relevant to the whole county rather than one area.
- **Hardware enhancements** - similar to software enhancements but relates to the physical hardware and again is not related to a specific area but is of benefit to the whole county.
- **Semi mobile CCTV** – Provides the TMC with temporary CCTV images at sites that do not require permanent CCTV, therefore providing flexibility as to where these cameras can be erected. Particularly useful for events, monitoring new traffic signal junctions and monitoring junctions that have current issues.
- **Web site improvements** – Used in the Countywide ITP submission to improve the Kent Traffic and Travel website and is therefore of benefit to the whole county rather than one area.
- **Implementation of WeBOS** – Used in the countywide ITP submission to enable a web operating system of the UTMC database to be deployed to organisations such as bus operators to check the status of their bus services and car parking operators to enable them to change the status / counters of their car parks.
- **Jacobs fees** – This area of the ITP will be used for the Jacobs fees for delivering UTMC.

**APPENDIX 2****UTMC TUNBRIDGE WELLS****1. Introduction**

Tunbridge Wells has submitted a bid for £345k for 2010/11 from the Integrated Transport Programme to provide UTMC equipment in and around the county to help alleviate congestion. The UTMC equipment that is installed will help the Traffic Management Centre to manage the network in and around Kent.

The aim of this report is to provide details of how this funding will be allocated.

**2. Details of UTMC funding****2.1 Equipment required**

The following will provide details of the equipment to be deployed in Tunbridge Wells to help with congestion, please see appendix 1 with a summary of the UTMC Equipment.

**2.2 Financial breakdown**

<b>UTMC Equipment</b>	<b>Funding 2010/11 £k</b>
Health Checks	0
Traffic Counts	0
CCTV	0
Link to Control Room	0
ANPR	90
VMS	160
Car Parking Signs	50
UTC	0
OMU	0
RTI	0
Software enhancements for the TMC	0
Hardware enhancements for the TMC	0
Semi mobile CCTV	0
Web site improvements	0
Implementation of WeBOS	0
Jacobs Fees	45
<b>Total</b>	<b>345</b>

**APPENDIX 3****UTMC SEVENOAKS****3. Introduction**

Sevenoaks has submitted a bid for £230k for 2010/11 from the Integrated Transport Programme to provide UTMC equipment in and around the county to help alleviate congestion. The UTMC equipment that is installed will help the Traffic Management Centre to manage the network in and around Kent.

The aim of this report is to provide details of how this funding will be allocated.

**4. Details of UTMC funding****2.1 Equipment required**

The following will provide details of the equipment to be deployed in Sevenoaks to help with congestion, please see appendix 1 with a summary of the UTMC Equipment.

**2.2 Financial breakdown**

<b>UTMC Equipment</b>	<b>Funding 2010/11 £k</b>
Health Checks	5
Traffic Counts	50
CCTV	0
Link to Control Room	15
ANPR	130
VMS	0
Car Parking Signs	0
UTC	0
OMU	0
RTI	0
Software enhancements for the TMC	0
Hardware enhancements for the TMC	0
Semi mobile CCTV	0
Web site improvements	0
Implementation of WeBOS	0
Jacobs Fees	30
<b>Total</b>	<b>230</b>

**APPENDIX 4****UTMC SWANLEY****5. Introduction**

Swanley has submitted a bid for £230k for 2010/11 from the Integrated Transport Programme to provide UTMC equipment in and around the county to help alleviate congestion. The UTMC equipment that is installed will help the Traffic Management Centre to manage the network in and around Kent.

The aim of this report is to provide details of how this funding will be allocated.

**6. Details of UTMC funding****2.1 Equipment required**

The following will provide details of the equipment to be deployed around Swanley to help with congestion, please see appendix 1 with a summary of the UTMC Equipment.

**2.2 Financial breakdown**

<b>UTMC Equipment</b>	<b>Funding 2010/11 £k</b>
Health Checks	5
Traffic Counts	30
CCTV	65
Link to Control Room	0
ANPR	0
VMS	100
Car Parking Signs	0
UTC	0
OMU	0
RTI	0
Software enhancements for the TMC	0
Hardware enhancements for the TMC	0
Semi mobile CCTV	0
Web site improvements	0
Implementation of WeBOS	0
Jacobs Fees	30
<b>Total</b>	<b>230</b>