

## APPENDIX F

---

### HERTFORDSHIRE INTELLIGENT TRANSPORT SYSTEM (ITS) STRATEGY

As part of the strategy development a number of ITS tools/mechanisms have been identified to meet HCC objectives. These have been consolidated into packages of measures which are listed below in no order of priority:

- **Package 1** – Traffic Signal Monitoring and Control – to include the upgrading of unmonitored junctions to urban traffic control (UTC) or to a remote monitoring system (RMS) to satisfy the need for monitoring at unmonitored sites; urban traffic control; remote monitoring systems; selective vehicle detection (SVD) and priority.
- **Package 2** – Interurban Monitoring – recommendation for use of automatic traffic counter classifier loops; CCTV; automatic number plate recognition (ANPR) camera installation for journey time monitoring.
- **Package 3** – Urban Monitoring – would cover bus service and compliance monitoring; CCTV; ANPR camera installation for journey time monitoring; INGRID and ASTRID; environmental monitoring.
- **Package 4** – Real Time Passenger Information – provision of real time passenger information and improving bus schedule adherence.
- **Package 5** – Traffic and Travel Information (Urban and Inter-urban) – implementation of Variable Message Sign(s) (VMS) Strategy in urban and interurban locations; implementation of Car Park Management and Guidance Strategy; programme of annual refurbishment of existing Electronic Passenger Information Point (EPIP) terminals and information screens.
- **Package 6** – Integrated Traffic Control Centre (ITCC) – to enable links with HA and neighbouring councils to be improved this will act as the central overarching transport management, monitoring and control centre for the county.
- **Package 7** – Communications Rationalisation – this works package will be an ongoing activity throughout the whole ITS strategy deployment process. When individual ITS packages are deployed potential communication systems will be assessed to best future proof the communications network for ITS assets and seek out the most efficient approach in terms of ‘whole life’ costs.
- **Package 8** – Urban Traffic Management Control (UTMC) – this will provide the core functionality relating to ITS tools and allow for the control and monitoring of, and data collection from, the full range of ITS equipment located throughout Hertfordshire.

It is anticipated that the deployment of the full eight packages of the ITS Strategy will cover a seven year period subject to funding being available.

## **ITS STRATEGY DEPLOYMENT – WATFORD**

As the pilot area for this strategy, three parts are already being developed for deployment within Watford:

### **(i) Variable Message Signing (strategic routes and car park management)**

Of the planned 9 VMS installations, 7 have now been commissioned and are operational. One sign planned for Pinner Road has now been relocated in Oxhey Lane at an agreed location following consultation with the local member. One last sign which was planned for installation on London Road (nr Falkner Road) is to be installed at an alternative location, we were unable to agree the proposed location with local stakeholders. Engineers are currently looking at Elstree Road nr North Western Avenue as a proposed location, it is however thought that this will not have the optimal effect of the original location.

The Car Park Management and Guidance signs (4) have been installed and are operational, these are now benefiting the town centre journeys.

The VMS / CPMG signs have already been strategically utilised for the following incidents:

- Watford bank incident. Diverted traffic from town centre following police closure.
- A405 northbound was closed between the M1 and the M25 for HA works. The signs assisted in informing traffic of the road closure.
- WBC are using the Car Park signs for local planned events.

When final installations and commissioning are complete, the Hertfordshire Highways ITCC (Traffic Control Centre) will have ultimate control of the technology for combined ITS network management purposes. This is expected to bring benefits to Watford congestion.

### **(ii) ANPR<sup>1</sup> deployment plan**

Design work has been completed. We currently await the award of a framework supplier for the on street equipment procurement. We expect to be installing cameras in the Autumn this year.

When installed this technology will form part of the overall ITS deployment within Watford and assist integrated network management responsibilities.

### **(iii) CCTV deployment plan**

Design work has been completed. We currently await the award of a framework supplier for the on street equipment procurement. We expect to be installing cameras in the Autumn this year.

---

<sup>1</sup> ANPR – Automatic Number Plate Recognition

When installed this technology will form part of the overall ITS deployment within Watford and assist integrated network management responsibilities.

(iv) AVL / RTPI

Factory acceptance & testing of systems (offline) has commenced. Centrebus fleet will be equipped by the end of July 2011 with UNO bus fleet by the end of December 2011. Display screens have already been installed in key locations, they are currently displaying scheduled information. It is envisaged that the real time system will be publicly live by the end of March 2012.