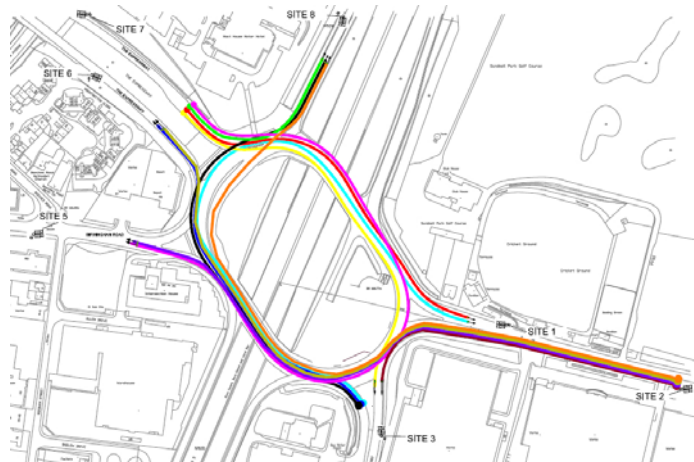




Case study: Medium term ANPR Journey time survey to evaluate the integration of Highways Agency and Local Authority traffic signal systems.

Road users are interested in understanding how potential routes will affect their journey time from A to B. This is a very complex problem which is affected by a wide range of factors which can change in real time. However one highly manageable piece of the puzzle is the integration, or lack of integration, between the signalling and management systems of the various highways authorities.

We were asked to provide a complex ANPR based journey time solution to see if a significant improvement could be made by ensuring that the Highways Agency traffic signalling system was communicating with the system from the local authority which was managing the local roads around a motorway junction.



The key problem with this survey was that 20 days worth of data needed to be collected, and these had to be “normal” days, before the traffic systems were integrated and 20 days of data was required after the work. However there was no provision for any power or data communications to the camera positions. It was decided that for health and safety reasons and to minimise the carbon footprint of the work, each camera location should be visited no more than one per week.

A system based on intelligent ANPR cameras, which included not only the image processing but also the infra red illumination source to allow 24/7 was proposed. With the assistance of solar panels to provide trickle charging to the battery the requirement of only going on site once per week was met. In order to ensure the data integrity, and to alert if a camera was offline, the data was transferred every few minutes via a GPRS mobile telephone communication channel. The Smart CCTV managed service software would alert if a communications transfer had failed to take place when expected.



Mounting of the cameras and the solar panel was achieved by fitting them to their own custom mast which was then strapped to a street lighting column, this method gave the rigidity required but ensured that no damage or modification to the lighting column was required.

The systems were used on a number of journey time studies at various motorway intersections and they were key to being able to measure the reduction in the average journey times through the junction.

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