



Lane Check - Edinburgh Bus Lane



Overview

The City of Edinburgh Council has invested heavily in a network of bus lanes throughout the city, covering approximately 65 kilometres. These form an important element in delivering a high quality and reliable public transport system, enabling buses to offer a credible alternative to the car.

To reduce the incidence of drivers abusing the bus lanes, a number of automatic bus lane cameras were installed to deter and detect violating journeys.

Customer

The City of Edinburgh Council
www.edinburgh.gov.uk

Advised by Halcrow
www.halcrow.com

Problem

Prior to introduction of decriminalised enforcement, abuse of bus lanes throughout the city was widespread, and bus journeys were frequently impacted. Lothian and Borders Police were responsible for bus lane enforcement, but due to limited resources, this was considered to be a low priority task resulting in very little enforcement activity.

New Scottish legislation was needed to allow civil enforcement of bus lanes, using the Vehicle Certification Agency (VCA) approved unattended cameras. These powers were granted in April 2012.

Jenoptik Solution

In April 2012 enforcement began across the city, using five re-locatable LaneCheck cameras. The cameras are periodically relocated by Jenoptik engineers, in order to manage compliance across the monitored sites.

LaneCheck is based on Jenoptik's industry leading Automatic Number Plate Recognition (ANPR) technology. It compares the registration numbers of vehicles using the bus lane with multiple 'whitelists' of permitted vehicles. Vehicles not found in the whitelist are recorded in an encrypted Evidential Record File, which is viewed and processed through the city's ticket office.

Technology Overview

The Edinburgh LaneCheck system is made up of five camera Outstations, shared across ten pre-prepared enforcement sites. Each camera Outstation is a fully integrated Automatic Number Plate Recognition (ANPR) system, containing both a high resolution digital colour camera, and an ANPR optimised camera. Violator records are transmitted from the outstation using 3G communications, to the remote Evidential Record and Control Unit Instation (ERCU) removing the need for a dedicated communications line at each site.

Edinburgh's camera locations have been selected to provide the optimum viewing point for image capture, with dedicated new poles located in the nearside verge. The LaneCheck cameras are moved between the ten locations by the Jenoptik field support team, working from our nearby regional Scottish office. This relocation approach allows the City of Edinburgh Council to dynamically adjust their enforcement approach, depending upon the violation levels detected, in a cost effective manner.

A violation record is created containing all of the details needed for the City of Edinburgh to create a Penalty Charge Notice (PCN). These images demonstrate the time-stamped 'colour overview' or contextual image, which presents the violating vehicle as it travels through the bus lane. A video clip is stored, which shows the vehicle as it travels along the length of the bus lane. An ANPR image is also captured, providing a close up view of the vehicle's number plate. This is a 'grey scale' image, using the optimised ANPR camera with the integrated Infra-Red (IR) illumination.



LaneCheck is VCA certified as an approved device for unattended bus lane enforcement.

LaneCheck procurement can be fast-tracked through the Crown Commercial Service framework, avoiding the need for costly and time consuming OJEU procurement procedures.



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Solution Benefits & Results

The Edinburgh LaneCheck project was the first use of the unattended bus lane enforcement equipment in Scotland. As an extremely high profile project, it received considerable media and political attention. The system has had a significant impact on driver behaviour, delivering a significant reduction in the number of detected violations. As a result additional new camera locations are being planned.

During the first twelve weeks of operation, weekly Penalty Charge Notices (PCNs) dropped from 2803 to 532, representing a greater than 80% drop.



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