

Tenix Solutions

SAFER. FAIRER. SMARTER.

A Success Story - CityLink Tunnel Speed Cameras

• CONSULTING • TECHNOLOGY • OUTSOURCING

CASE STUDY

CityLink, a 22 kilometre automated tollway in Victoria, connects the Tullamarine, West Gate and Monash freeways and is Melbourne's largest arterial.

The toll road includes elevated freeway sections, free flowing traffic, electronic tolling, triple lane tolling gantries and two underground tunnels, the Domain and Burnley tunnels. During construction, concerns were raised regarding road safety in the tunnels, the first of their kind in Victoria, particularly around speeding.

Tenix Solutions took a proactive approach by initiating and funding the management of a pilot program for digital speed cameras in the tunnels, on behalf of the Victoria Police, and as part of the Victorian Road Safety Program. This was the first time digital speed cameras would be used in Victoria, posing potential implementation and operational risks. Tenix Solutions alleviated the risks by funding and managing the pilot program that would ultimately encourage safer driver behaviour.

Complex Analysis

A complex solution was required to monitor and enforce vehicle speed entering, exiting and within the tunnels. Both CityLink tunnels were to operate under variable speed limits ranging from 40km/h to 80k/h and with limited lighting.

Tenix Solutions needed to ensure the CityLink pilot of fixed digital speed cameras would address specific requirements. These included:

- Operating within the constraints of ambient tunnel lighting
- Linking to the variable speed signalling system
- Remotely retrieving the images captured of offending vehicles
- Determining the number of locations and number of cameras to be installed
- Producing clear quality colour images
- Providing evidence to the Government that the digital cameras were effective in the tunnel environment and made a difference in road safety terms.

A Partnership Approach

In consultation with all key industry stakeholders, Tenix Solutions conducted intensive analysis to source the best camera technology that would exceed expectations and delivery requirements. A competitive trial of the two leading digital speed camera technologies was undertaken and Tenix Solutions engaged Monash University Accident Research Centre (MUARC) to assist with gathering the supporting road safety related data.

The performance of each camera was rigorously tested by Tenix Solutions' expert engineers to ensure it met all the specific technical, engineering and system processing performance criteria.

The meticulous testing process established the digital technology could deliver accurate, clear and reliable speed detection images in an unobtrusive manner with nothing more than the existing lighting in the tunnels. The technology was also tested to ensure it could process the large volumes of transactions expected, and to deliver high rates of prosecutable evidence.

Notwithstanding a number of initial difficulties with the tunnel environment, the pilot was an outstanding success and resulted in Tenix Solutions being contracted to acquire and manage the installation of a total of 22 cameras in the tunnels, over seven locations.

Implementation

A crucial element of the implementation included the requirement to seamlessly integrate the new digital speed camera evidence into Tenix Solutions' existing traffic infringement system. Minimal disruption was encountered to any of the services Tenix Solutions provided during this time.

Tenix Solutions adopted a staged approach throughout the implementation period. One speed camera was deployed per traffic lane throughout the tunnels. Tenix Solutions successfully achieved the installation of each camera, configuration, calibration and integration with the existing infringement management system and the variable speed signalling system.

The complex installation was undertaken by Tenix Solutions' experienced engineers and technicians. Once the tunnels were opened a six week observation period began to monitor traffic behaviour within the tunnels. During this period, no infringements were issued, however it provided a valuable insight into motorists behaviour and enabled additional testing of the speed detection platform.

Upon successful completion of the testing, a public awareness campaign was undertaken by Victoria Police warning motorists of the speed camera presence within the tunnels, and the penalties involved for those who failed to comply with speed limits. Behavioural changes from motorists using the tunnels significantly improved as a result of the public awareness campaign and since the digital speed cameras began detecting offences.

The Results

Tenix Solutions' project management, engineering expertise and experience in managing large scale projects led to a successful outcome for all key stakeholders.

The role Tenix Solutions played in this pilot and implementation is an example of how seriously we take our role as a leading road safety partner to major law enforcement agencies.

The successful implementation of the first ever digital speed camera solution in Victoria established Tenix Solutions' position as an innovative partner of choice for sophisticated traffic management services.

Tenix Solutions continues to process CityLink speeding infringements and tolling offences today. Over 120,000 vehicles use the CityLink tunnels each day, equating to over 43 million transits through the tunnels each year.

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