

Case Study

Improved journey times along the motorway network

Wireless Vehicle Detection smoothing traffic flow across 14 locations along the M8 M73 M74 motorway network

Background

The M8 M73 M74 Motorway Improvement project was developed to complete the Central Scotland Motorway Network. The wide ranging and complex project has the aim of improving journey times and journey time reliability through central Scotland.

It includes a new motorway between Baillieston and Newhouse, completing the M8; improvements to Raith Interchange on the M74; a new, all-purpose A8 between Baillieston and Eurocentral; upgrading the existing M8 between Easterhouse and Baillieston; upgrading the M73 between Baillieston and Maryville and an upgrade of the M74 between Daldowie and Hamilton.

The successful project bidder, Scottish Roads Partnership (SRP), is a consortium including a construction joint venture of Ferrovial Agroman and Lagan, and SRP. Amey are responsible for managing,

Key Benefits

- Improved journey times
- Increased journey time reliability
- Reduction in congestion across the network
- Lower life-time traffic signal system costs
- Less structural impact on the road surface
- Improve the operation of local business by reducing travel cost

operating and maintaining this core section of the motorway network for 30 years following completion.

The project included traffic signal upgrades across the key junctions feeding into the motorways. Within the design stage it was identified that by using wireless vehicle detection on the traffic signal upgrades this could be more cost effective across the life of the contract, versus using traditional loop technology.

Solution

At the design stage Clearview Intelligence worked alongside Dynniq—who were appointed to upgrade the signal systems—to undertake detailed site surveys across 14 locations. These surveys were to fully understand the equipment requirements and produce an installation plan designed to minimise road closures and reduce installation times.

After completing the surveys, Clearview's engineering team worked with the Dynniq installation teams to help install and commission the new system across the 14 junctions. The system uses M100 detection units with appropriate access and repeater points to create a wireless detection network per site. This feeds into the Dynniq signal control system to manage traffic flows across the junctions.

Since installation, Clearview's M100 wireless detection system has proved a reliable alternative to loop technology. As it is a self-contained stud unit that sits in the centre of the lane, it has low maintenance requirements, is easy to replace and has less structural impact to the road integrity.

On a scheme as big and important as the M8 improvement programme it is essential to choose the right partners and ensure the technology is fit for purpose. Dynniq has worked with Clearview for many years and we had no worries in using the M100 detection units to work with our traffic signals. As ever, our close working relationship ensured that installation and commissioning work went as smoothly as possible across all of the junctions.

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