





Works Egress Advance Warning System for Live-Lane Traffic

THE PROBLEM

A recent 2020 report from TRL showed works vehicles can take up to 45min to exit onto a Smart Motorway scheme, with a median of 20min (made shorter as a result of covid traffic reduction). The importance of advance warning to motorists during motorway construction is compounded by the risk road workers take exiting in heavy works vehicles from site egress onto the mainline.

THE SOLUTION

Collaboration & Digital Integration

In conjunction with our industry and ISO44001 collaboration partners, Highway Resource Solutions (HRS), our mobile variable message signs were seamlessly integrated using digital API with HRS Intelligence radar to provide critical advance warning to motorists upstream of vehicles exiting the works.

Two current and notable Egress Warning projects are the Costain Galliford Try JV, for the SMP M1 J13-16 and the A21 Kippington verge repair project for Chevron and Costain in CWF Area 4.

Firstly, the HRS Works Egress Sentry laser sensor detects a vehicle waiting to exit a worksite onto a high-speed carriageway. The Sentry integrates seamlessly with Mobile VMS to warn members of the public of slow-moving vehicles entering the carriageway.

The HRS Sentry will detect and record any vehicle which crosses its beam and our JamLogic software records the number of activations on our VMS for the project team. The Sentry will subsequently continue to raise an alert until the vehicle is no longer detected and the system is reset. At that point, the message on the VMS defaults to a blank screen.



CASE STUDY



We were initially introduced in connection with the BBV JV 60mph SMP project on the M4 J3-12. Mobile VMS have allowed and assisted the integration of VMS data with the HRS 'Intellizone' platform via an Application Programming Interface (API). This allows rich data to be obtained from any VMS display and incorporated in the HRS visual dashboards or SMS alerts to TSCOs and Shift Supervisors.

HRS has been working with Mobile VMS on a number of projects, most notably as suppliers to Costain Galliford Try JV, for the SMP M1 J13-16 and for the A21 Kippington verge repair project. Further integration is planned between Mobile VMS and HRS systems, to provide clients with a seamless 'onestop' source of essential, actionable information from smart roadworks.

Nick Barnett MSc, CEng, MIET, HRS Digital Services Lead – Dynamic Speed Signs and Works Egress



HRS Work's Egress Sentry Laser Radar



Mobile VMS on the A21 Kippington (Chevron, Costain) displaying Work's Egress activation message to passing motorists upstream from Site exit

