

CASE STUDY

Dynamic Speed Signs

M4 J10 to J12



Background

Reducing journey times through roadworks is an important objective for Highways England but this often conflicts with road worker safety requirements during peak site activity.

As part of a Smart Motorways construction project, a 32-mile section of the M4 is being upgraded to increase capacity, reduce congestion, and enable shorter journey times.

Being able to increase the temporary speed limit from 50mph to 60mph when safe to do so could achieve a staggering time saving of 4,300 man-hours per day between junction 10 to 12 alone. This represents a significant benefit and allows both safety and journey time objectives to be met.

Solution

HRS have developed a Dynamic Speed Sign which can display 40, 50 or 60mph on a temporary, mobile TSRGD-compliant sign incorporating digital communication and Geozone mapping technology. Using this technology, Dynamic Speed Signs were assigned to the Eastbound and Westbound carriageways.

Once in place, the Dynamic Speed Signs allowed the desired speed limit to be set by either the TSCO or by CCTV operators, with speed changes taking just moments to complete via a secure mobile connection.

The system is self-monitoring which means that any potential issues are identified and resolved quickly.



For more information visit www.highwayresource.co.uk
or call us on +44 (0) 800 206 13 19



Benefits

HRS's Dynamic Speed Signs performed successfully between M4 junctions 11 and 12 since February 2020. Over 85 additional signs were deployed in December 2020 to enable 60mph running between junctions 10 and 12 throughout the 2020 Christmas period.

Site teams actively used the system during breakdown recovery and peak site activity.

Since Summer 2019, HRS's Dynamic Speed Signs have been deployed on other SMP schemes: M6, M20, M23, and M62, enabling over 3,000 speed changes and making it possible to open additional lane capacity early thereby improving traffic flows.

In total, HRS's Dynamic Speed Signs have operated for more than 1.5 million hours.

Key Features

HRS's Dynamic Speed Signs are easy to deploy and solar powered meaning they require minimal maintenance.

- Operate a 60mph speed limit when safe to do so
- Operate a 50mph speed limit during peak site activity
- Operate a 40mph during breakdowns
- Self-monitoring system that provides full track record of use on demand via HRS's web portal

Award Recognition 2020



Testimonial

**Mark Neville,
BBV Project Manager:**

“The system allowed us to adapt the temporary road speed to suit the contract works, instantly and effortlessly, thereby maintaining a high level of safety whilst protecting our Workforce and the General Public.”

About HRS

HRS's mission is to provide technology-based safety solutions that will help to significantly reduce injuries and fatalities in temporary work zones, whilst providing the travelling public with accurate real-time information. Our digital solutions have been proven to safeguard workers on many occasions whilst also delivering net cost savings in temporary traffic management.

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