

Improved compliance, communication and diversion monitoring in a multi-purpose digital road sign

The Intelliframe® developed by our sister company Highway Resource Solutions (HRS), is a new and innovative way of digitally monitoring and managing street works to ensure compliance with relevant legislation, provide real-time updates to road users and allow remote visibility and monitoring of physical diversions.

It is a simple road sign which has been fitted with digital technology which can be used in a variety of ways depending on customer needs.

Key benefits

- > Reduction in fixed penalty fines and overstay charges
- > Improved compliance with site permits
- > Reduction in number of lost/forgotten signs
- > Removal of two-hourly manual checks of diversion routes
- > Reduction in customer complaints
- > Improved environmental impact
- > Improved operational efficiencies



The Intelliframe can be used in a variety of ways depending on the needs of the client. The most common uses are:

Permit Sign

Using the Intelliframe as a Permit Sign, the Permit Number will be displayed digitally and will update remotely to provide real time information including sign location and permit conditions. The Intelliframe will send alerts and notifications when the permit is due to expire which allows the customer to avoid potential fixed penalty notices and overstay fines.



Street Works Sign

The Intelliframe makes it possible to manage and monitor sites remotely which reduces the need for onsite maintenance. Operatives need to be deployed only when the Intelliframe has raised an alert of issues such as a fall-over. This not only delivers operational efficiencies but ensures that issues are dealt with immediately reducing the risk of non-compliance.



Diversion Route Sign

The Intelliframe Diversion Route Sign provides a digital “twin” of a physical diversion route. The technology on each sign allows remote monitoring and provides real time diversion route analysis, highlighting route clashes and fallen signs. This removes the need for two-hourly route checks, improves journey experience, provides historical data to use in investigation customer complaints and provides alerts of forgotten signs.

Emergency Sign

Simply opening the frame legs will power the Intelliframe to provide a date and time stamp along with GPS location of the frame. This allows customers to check they have complied with requirements to attend site within the parameters set. When the job is confirmed and a permit number is established, the Emergency Board can switch to a digital permit board.

Advance Warning Board

As an Advance Warning Board, the Intelliframe can digitally show the dates, times and durations of upcoming road closures. Along with the location data and time stamp history, the frame can show compliance with dates applied for within the TTRO. If dates for the road closure change, the dates on the frame can be changed remotely and shown on the digital display.

Intelliframe® case study

The Intelliframe was used on the M11 Moor Hall Overbridge Joint Replacement Scheme on the Highways England East AD CWF Framework to provide diversion route visibility. When the diversion route was agreed, 25 digitally-enabled Intelliframe signs were manually placed throughout the route.

From the moment the diversion went live, these signs were monitored remotely to ensure the integrity and safety of the diversion route and to identify any issues such as sign falls or route clashes. TM crews were dispatched only when needed which freed up resources to be used more efficiently on other jobs and the client was given access to historical data on each sign which helped in dealing with any customer complaints.

At the end of the 10-day diversion, a sign was accidentally left on the route. This was picked up by GPS and operatives were dispatched to collect it. This avoided an asset loss, roadside clutter and a potential fine for the client by the local authority.

Satisfied clients

“Chevron TM used Intelliframe for the first time on the M11 Moor Hall Scheme. On a 10-day diversion, we cut out 100 maintenance journeys meaning 2,770 fewer miles of driving which brought cost savings, more efficient use of resources and a positive impact on the environment. Feedback from the client was extremely positive and I am already working on integrating Intelliframe on other projects.”

Craig Wood
Chevron TM East Region CWF Framework Manager

HRS product range

- > Customer Communication Terminal
- > Intellicone® Smart Taper
- > Intelliframe®
- > Dynamic Speed Sign
- > Works Egress System
- > Intellicone® Incursion Prevention & Warning System (IIPAWS)