Tackling Speed Through Road Works

Work by Balfour Beatty Mott MacDonald and BEAR Scotland have shown two different approaches to tackling speeding through roadworks. Here, Balfour Beatty Mott MacDonald MD Tony Gates talks about the mobile SPECS cameras used for the first time in Area 2

The only trouble has been that SPECS is a time intensive system to install which needs semi-permanent structures and detailed calibration. Therefore, it is only used at permanent sites or those where long term road works are taking place. However, following work done by RoWSaF; together with the SPECS supplier Vysionics, we became aware of a new mobile application of the technology and jumped at the chance to be the first to use it in a live, non-trial situation.

SPECS-RD (Rapid Deployment) is a system based on mobile generators, with cameras mounted on a telescopic pole (towers), 200-300 meters apart. They capture data which is streamed to an ‘enforcement van’ from where the results are uploaded to the local safety camera partnership.

We used the system on an urgent resurfacing scheme on the M5 Painswick Bridge at Gloucester in October last year. The results were impressive. In the hours that the SPECS-RD was operational, the average speed of motorists was just 46mph. This is a significant improvement on the average UK speed through 50mph temporary motorway works. During this time there were no reports of near misses among our workforce.

So the scheme has been successful for us. Our workforce is happy with the safer environment created by the overall reduction in speed and compliance with the limit, and we are pleased that we have reduced a major risk affecting them. *askone@bbmm.co.uk*

Do VMS signs help tackle speed too?

See inside for how Transport Scotland’s operator BEAR Scotland has made a difference using VMS....
Trial of VMS Signs on Scottish Roads

The second of our case studies on speeding through road works takes us to the Scottish Trunk Road Network where operating company BEAR Scotland are trialling reduced speed limits and variable message signs on short duration works as Company Representative Eddie Ross explains...

Following a number of accidents where vehicles entered works sites through temporary traffic management, injuring the workforce, we decided to investigate ways of making the situation safer.

Whilst safety at major road improvement projects benefits from average speed cameras and temporary safety barriers these measures are not always practicable or affordable on short duration operations. This leaves operatives exposed to risks on a daily basis.

To address this, we trialled the use of stepped speed limit reductions, dropping from 70mph - 50mph - 30mph on dual carriageway sections and augmented this with VMS signs displaying the reduced speed limit.

Whilst we'd like to see further reductions to below the posted speed limit, these reductions are significant. The severity of any incident is likely to be reduced, or possibly avoided, at the lower speed. Motorists who reduce their speed are also likely to have an increased level of awareness when travelling through the roadworks.

This has been facilitated by changes approved by Transport Scotland to the way in which Temporary Traffic Orders for speed limits are implemented.

Results from Near Miss Reporting

Traffic Officers based at Chieveley Outstation, at Jet 13 of the M4, faced a recurring problem when exiting the site, at least three times a day on shift changeover, leading to unnecessary risk.

A set of traffic lights had been installed to stop traffic on the slip road and allow traffic officers and Area 3 MAC Enterprise Mouchel vehicles to exit safely on to the slip road. However, red signals were regularly being missed or ignored by drivers using the fast moving three lane slip road. Whilst traffic officers had a green light to exit, they were facing risks with frightening consequences and reporting near misses on a regular basis.

The local management team took decisive action to ensure each near miss was reported onto the Agency's internal incident reporting and investigation system (IRIS), as well as raising the problem's profile at regional and national health and safety meetings within the Traffic Officer Service, and with Enterprise Mouchel, who re-phased the traffic lights and improved the road signs. However, there was no discernible improvement.

Following this intense period of traffic officers reporting near misses and managers perseverance and determination to make the site safer, works are now commencing to construct a dedicated exit, due for completion by the end of April 2012.

This clearly shows that reporting near misses does work and it is a shining example of how diligence by everyone involved has reached a satisfactory conclusion for traffic officers and road users.

Brian Gordon, MD, BEAR Scotland

“On the trial, average speeds dropped from 52mph to 42mph using the reduced speed limits. When the VMS signs were also provided average speeds dropped from 42mph to 39mph”

An incident in roadworks on the A90

TRL CEO Supports Road Worker Safety Improvements

Recent trials of road danger lamp removal carried out by Connect Plus and supported by TRL were an ideal opportunity for TRL’s Chief Executive Dr Sue Sharland to get involved at grass roots level. She was keen to see for herself the risks that road workers are exposed to each and every night on the HA’s network.

The Transport Research Laboratory (TRL) has carried out the monitoring of a number of network trials during recent years which have enabled improvements to road worker safety.

Simon Taylor of Connect Plus made arrangements for Sue and Siggi Clark (a member of TRL’s road worker safety team) to view the installation of an overnight lane closure on the M25 from the safety of an over bridge.

After the visit Sue said: “I have learnt a lot from the TRL safety team over the years on the issues involved in improving road worker safety, but to actually see some of the working practices and the issues involved in changing these and reducing risk, really improved my understanding.

“The trial in Areas 5 and 9 of the removal of road danger lamps from longitudinal runs of cones downstream of the taper is complete and the need for further work is being considered” – Ian Smith, HA

Stuart Baker, Siggi, Sue Sharland and Simon Taylor

TRL clearly shares a very great commitment to improving road worker safety, and we look forward to working with all our colleagues involved in his field.”
Litter Picking Safety Improvements

Litter on the road network is a source of regular complaints and concerns from road users and road workers alike, but for very different reasons. Phill Beaumont, Network Manager for A-one+ reports.

The Environmental Protection Act 1990 Part 4 sets out a requirement on the Highways Agency (as Highway Authority) to collect litter from motorways. On all other roads, litter collection is the responsibility of Local Authorities. The HA discharges its responsibilities through its Service Providers.

The Department for Environment, Food and Rural Affairs (DEFRA) Code of Practice on Litter and Refuse (April 2006) details “special locations” which include central reserves and high speed roads (with a speed limit of 50mph or more). This guidance gives a maximum of 28 days between litter collections, or when safe and reasonably practicable to do so.

As a leading Service Provider, we have a duty to minimise safety risks to our workforce when they collect litter on motorways. This requires us to balance the requirements to remove litter from verges, hard shoulders, central reserves etc. in a timely manner to reduce the visual impact, against the risks of operatives clearing it. To do this effectively, ideally we should ensure that litter is collected only when there is suitable temporary traffic management protection for our workforce. Ideally, we’d like to have dedicated litter collection teams in all lane closures, but this isn’t always practicable. However, if we were to set a target of collecting, say, 5 bags of litter every time we undertake a vehicle restraint system repair on the central reserve, we’d see a significant improvement in litter reduction over time.

At any location where litter collection is being carried out, we make sure that a thorough pre-start briefing is given to the team, including advising workers of ‘abort conditions’. Visibility distance to traffic and traffic flow variation are closely monitored during litter picking and work is suspended if conditions significantly deteriorate to protect the safety of our workforce.

Road Worker’s Bright Idea

A1 Dishforth to Barton Improvement Project implements suggestion on the road to Target Zero. Carillion’s Phill Ross explains.

Our October 2010 “Suggestion Box Award” was presented to Kevin McGregor for his idea to put a 5mph reflective sign on the back of the Hi Viz jackets and vests of all site workers. Drivers approaching from behind in the vicinity of workers are reminded about the site speed limit and are prompted to slow down.

5mph jackets help slow down traffic
This is an idea that could be used throughout Carillion and help all projects toward Target Zero.

Kemble Airfield Driver Training

The first driver training course in the UK specifically aimed at work crews entering and leaving road side work sites has been launched on the M4/MS Managed Motorway Project. Balfour Beatty Construction Manager, Phil Hobson is delighted with how it’s going.

In the grounds of Kemble Airfield, just South of Cirencester, our M4/MS Managed Motorway project has constructed an innovative driver training facility. Complete with Varioguard, entry and exit points and a coned narrow lane, the facility replicates a Managed Motorway hard shoulder site.

Currently there is no industry competency standard for the access and egress of a live carriageway closure, making the training at Kemble training an industry first.

By ensuring that all personnel driving into our sites are fully competent to do so we are proactively managing the associated risks. The training programme that has been written will develop and improve as the project progresses. We hope that the programme will be adopted by all future motorway schemes.

To date, over 100 Balfour Beatty staff have completed the training.

National Highway Sector Schemes

National Highway Sector Schemes are an important way in which the Highways Agency leads the process of ensuring that its supply chain workforce is properly trained and accredited to carry out work on its network.

There are currently more than 20 individual schemes covering activities such as traffic management, vehicle safety restraints, road surfacing and marking, fencing and landscaping, and highways electrical work.

As the Highways Agency’s lead on sector scheme work, Lance Williams provides an interface between the providers of qualifications, industry stakeholders and registration schemes to deliver a comprehensive range of registered skilled workers to the highways industry. He also sits on the RoW/Saf Working Group to represent the views of sector scheme committees and take forward the Agency’s lead in this area.

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Alternative Taper – Safer and Quicker

The HA has published IAN 163/12 which allows the use of an alternative temporary traffic management taper which is safer and quicker than the current taper layout.

As part of its ongoing drive to fulfil its “Aiming for Zero” vision for improving road worker safety, the Highways Agency has published Interim Advice Note 183/12.

The alternative taper arrangement reduces the number of cones required from 51 to only 31, achieving a significant reduction in manual handling risk and reducing the time taken to deploy or remove a relaxation scheme taper by about a third.

The new layout adopts a 9m spacing, which aligns with the road markings. This is expected to generate even more time savings, improve taper alignment, visual appearance and further improve road worker safety.

The IAN follows successful trial adoption of the “Innovative Taper” under AMM 125/10, and its design took account of supply chain feedback on its use.

A Flavour Of High Priority RoWSaF Projects

- High level signs: enabling the removal of all offside signs on the approach to roadworks, replacing them with three vehicle mounted high level light emitting signs on the hard shoulder at 800, 500 and 200 yards.
- Use of fixed gantries for temporary speed limit terminal and repeater signs at road works.
- Removal of Road Danger Lamps from longitudinal runs of cones, downstream of the taper.
- Temporary traffic management sign designs and sign sizes.
- Offside signs relaxation: enabling the removal of all offside signs on the approach to roadworks, during relaxation works only, keeping all nearside signs at ground level on A-frames.
- Review of IFV (Impact Protection Vehicle) Strikes

Your Feedback: The Results

RoWSaFnews is in its third edition and is now being read by over 700 people in the highways industry, from company directors, to road workers, highways suppliers, clients, and all those working to make our industry safer. We want a growing readership, so please promote it amongst your colleagues and co-workers.

In January we carried out a survey to get your views on RoWSaFnews. Over 95% of you found the articles interesting and relevant, and 98% said they improved your knowledge of what is being done to improve road safety. Comments such as “attractive, readable publication”, “good, informative articles” were received. We are acting on your feedback about what you’d like to see in the newsletter, for example something on Scottish works, included in this edition.

You were also pleased to see the launch of www.rowsaf.org.uk, which provides more background to RoWSaF’s work and a channel for dissemination of news and campaigns.

If you’ve got something to contribute please email us: info@rowsaf.org.uk

Listen in - A-one+ Safety Radio Campaign

Over 1 million people have heard the latest safety messages broadcast in A-one+ Areas, 7, 10, 12 & 14 via Real and Smooth Radio. The three messages were designed to remind drivers to Think' about road workers and to take extra care when approaching and driving through road works. Feedback from listeners has been very positive and the concept has been shared with the Highways Agency and their Service Providers.

The messages were broadcast across the West Midlands with a view to national coverage in the near future. Topics for the next messages are still to be agreed and your suggestions are welcome, with the concern regarding fatigue in LGV drivers being high on the list to be covered.

Listen to the campaign here: Qrowsaf.org.uk - @Phill.beaumont@one.uk.com

AIRSweb Update

In response to revised HSE RIDDOR regulations, changes to the AIRSweb system were made on 6th April. The system now collects data on over 7 day incidents (the new RIDDOR reporting threshold), in addition to over 3 day incidents. At the same time, changes have also been made to remove the need to record all “near miss” events on AIRSweb. The planned changes to improve access arrangements went live on 1st May.

The server has been moved outside the HA firewall, so contractors no longer need to purchase dedicated leased lines for access to AIRS. System access is much more efficient and the setting up of new user accounts much quicker. IAN 128/12 on the DMRB web site details the changes. AIRS can be used at the link below:

https://airs.dft.gov.uk - airs@highways.gsi.gov.uk

About Us

The Road Workers’ Safety Forum (RoWSaF) is an industry group established in 2001, promoting the health, safety and welfare of road workers. Members are drawn from UK roads administrations, enforcement agencies, contractors, designers and their associations.

Contact Us

RoWSaF News welcomes contributions from all parts of the highways maintenance community. If you have any contributions then please contact s.wilson@bbcei.co.uk or call 01737 785147

Produced by Balfour Beatty Civil Engineering in partnership with the Highways Agency on behalf of the Road Workers’ Safety Forum.