



## Briefing 13/05

# RSMA Survey of road markings

To: All contacts

### Key issues

Research into condition of Road Safety Markings

Prompt to local authorities to include road markings in road asset management plans

George Lee, National Director of the RSMA to speak at APSE Highways, Street Lighting and Winter Maintenance Seminar

### 1. Context

A survey into the quality of road safety markings on the UK's road network was published at the end of 2012. The Road Safety Markings Association (RSMA) carried out the UK's biggest survey of the state of white lines across more than 6,000 miles of roads in England, Scotland and Wales – including the UK's ten most dangerous roads identified by the Road Safety Foundation – assessing them for the quality of their central white lines. The report can be found [here](#).

### 2. Nature of the survey

The survey is the tenth national investigation conducted by the RSMA into the quality of road safety markings. The findings in the report relate to site surveys carried out between July and September 2012. The survey covers a total of 7250km of roads, nearly three times the distance covered by the previous survey in 2010.

Road markings are measured on their retro-reflectivity. A rating of 150mcd (millicandelas) is the level recommended by the industry, with road markings materials available that ensure markings remain clearly visible even at night in wet conditions. Under Highways Agency standard TD26, if the quality of markings falls below 100mcd, they should be scheduled for replacement, and if the quality rates below 80mcd, they must be replaced immediately. A revision of HA's TD26 is due next year.

The LTL-M monitoring equipment is based on a patent-pending technology that makes use of a DELTA developed flash system, digital camera technology and distance triangulation offering accuracy in line with handheld instruments under all driving conditions including bumpy roads and curves. The system provides continuous measurement of night visibility at traffic speed in full length and width of road markings; additionally LTL-M measures the daylight contrast, the width of markings and records the presence of retro-reflecting road studs. This enables the evaluation of the condition of this road safety feature in a manner and volume never previously measured by any highway authority across the UK.

In England, 1,097 km of non HA dual and single carriageways were surveyed with 1,030 km of motorways, dual and single carriageways surveyed in Scotland and 650 km in Wales. A further 4,474 km of English Highways Agency maintained motorways, dual and single carriageways were surveyed for the Lifelines Report.

### **3. Survey results**

On England's local authority-maintained single carriageways 22 per cent of markings are in a critical condition and a further 20 per cent need replacing. On average, 25 per cent of markings on dual carriageways are in the failed or warning zone.

Across all roads surveyed in Scotland, the report notes that the findings are a major cause for concern. 61% of single and dual carriageway road markings are invisible or falling into the warning zone. In Wales, the survey found that 40% of markings on dual carriageways are invisible and a further 21% should be scheduled for replacement.

### **4. APSE Comment**

The survey carried out by RSMA focussed on motorways and A roads as well as covering some roads maintained by local authorities. However with responsibility for some major and many local roads, councils continue to be vigilant in over road markings just as they should with signs and signals. Clearly for road markings to be effective they must be visible both by day and night and wet conditions, dirt, snow and poor application as well as wear can all cause them to be less visible than they should be.

The RSMA is concerned that Highways Agency ratings for road markings have never been formally adopted by local authorities, which they claim has led to inconsistent maintenance standards on UK roads and the potential for the significant maintenance shortfalls identified in the RSMA report. The Scottish Government, through Transport Scotland and the Welsh Assembly Government, through Transport Wales, have both signed up to the TD26 maintenance standard and the report claims they are as much at fault as the HA in failing to enforce the standard. It goes on to state local government has no equivalent standard and the report claims that where decline is seen in HA-maintained roads, local authorities will follow. Clearly we will have to wait and see whether this is actually becomes the case but reducing resources mean it may well be. The report specifically points to Transport Scotland as having signed up to the TD26 standards but with little evidence of them complying to them, representing a significant safety issue for drivers in Scotland.

The issue of standards is an important one from a research and guidance point of view but it does not follow that signing up for a specific standards means that they will be followed. Local authorities should be free to decide their own approach whilst taking all available information into account. There will be different approaches across the UK and this is quite appropriate as long as the safety of road users and pedestrians remains at an acceptably high level.

Road markings represent one of the most cost-effective road safety measures available to local authorities as well as the Highways Agency. As a low cost and easy to apply treatment they have become a fundamental element of the highway. They are always in the drivers line of sight and unlike roadside signs are not a physical threat if the vehicle leaves the road. However they must be treated as an asset within the highway network. Just as the road surface, kerbs, gullies, drainage facilities, signs and signals need to be managed as assets and be part of the highways asset plan, the same is true of road markings. Local authorities should monitor the condition of their road markings, understand where they are most likely to need treatment and the factors causing them to wear and have in place replacement schedules to ensure they are visible and effective.

This survey highlights the fact that fewer markings on single carriageways managed by local authorities fall into the emergency bracket than those managed by the Highways Agency. However this is not a reason for complacency amongst council engineers. The estimated cost of a single road death is £1.8m and there were an average of over 3,600 deaths and 37,000 serious injuries on the roads between 1999 and 2010. Ensuring road markings are in place is a relatively small job and minor

budget cost but in times of severe financial cuts, reductions in the workforce and competing priorities, it is difficult to promote road markings above for example, remediation of potholes.

The government has recently been accused of cutting spending on road safety campaigns from £19m in 2008/09 to just £4m in 2011/12 an 80% drop. The Department for Transport is planning on spending £3.7m on road safety in the 2012/13 financial year to cover cyclist safety, child and teenager road safety, research into young drivers, motorcycle campaigns and drink-drive campaigns. This drop reveals a gap between past and future spending which will not be met. It puts further pressure on local authorities to use their resources in the most effective manner as possible although their ability to fill meet emerging gaps such as these is severely restricted.

Maintenance of the road network, the most valuable asset in a local authority, is vital for the local and national economy. However councils are finding it more and more difficult to keep on top of maintenance requirements and the deterioration in the condition of road markings which this report highlights is another element which is suffering due to limited resources across the local government sector.

George Lee, National Director of the Road Safety Marking Association will be speaking at the APSE Highways, Street Lighting and Winter Maintenance Seminar in Newcastle upon Tyne on 6<sup>th</sup> and 7<sup>th</sup> March 2013. A link to the agenda and booking form can be found [here](#).

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