

	<p><b>REGULATION 28 REPORT TO PREVENT FUTURE DEATHS</b></p> <p><b>THIS RESPONSE IS BEING SENT TO:</b></p> <p><b>The Senior Coroner for the Coroner Area of South Yorkshire West, Mr David Urpeth of The Medico-Legal Centre, Watery Street, Sheffield, S3 7ES</b> in response to a 'Regulation 28 Report to Prevent Future Deaths' following an inquest hearing into the deaths of Jason Lee Mercer and Alexandru Murgeanu that concluded on 18 January 2021.</p>
1	<p><b>HIGHWAYS ENGLAND</b></p> <p>I am [REDACTED], Safety, Engineering and Standards Executive Director, and Chief Highways Engineer, responding on behalf of [REDACTED], Acting Chief Executive of Highways England Company Limited of Bridge House, 1 Walnut Tree Close, Guildford, Surrey, GU1 4LZ.</p>
2	<p><b>CORONER'S MATTERS OF CONCERN</b></p> <p>The <b>MATTERS OF CONCERN</b> were identified as follows: –</p> <ul style="list-style-type: none"> <li>• The obvious and foreseeable risk posed by the absence of a hard shoulder on smart motorways</li> <li>• The confusion caused to motorists posed by a mixture of smart motorways and traditional motorways</li> <li>• The need for better driver awareness on the use of smart motorways</li> <li>• The need for Highways England to be better able to identify stationary vehicles</li> <li>• The need for better driver awareness of the need, where possible, to get over the crash barrier on all motorways, not just smart motorways</li> <li>• The need for a wider review / inquiry into smart motorways.</li> </ul>
3	<p><b>DETAILS OF ACTION TAKEN</b></p> <p>Highways England is the Government-owned company charged with operating, maintaining and improving England's motorways and major A-roads. Responsibility for the road network in other parts of the UK rests with the devolved administrations. This response accordingly addresses the position in England.</p> <p>The introduction and continuing roll-out and development of smart motorways in England has been Government policy since 2008. Smart motorways provide substantially more road capacity than conventional motorways. In the face of increased traffic volumes, they reduce congestion, congestion related incidents and allow faster and more reliable journeys, without the greater disruption, cost and environmental impacts of traditional road widening. At the same time, the Government's evidence demonstrates that smart motorways have in fact improved overall safety compared to the conventional motorways they have replaced. But not in every way, hence we are taking forward an Action Plan to further improve safety.</p>

Safety is Highways England's top priority. According to the 2019 performance report published by CEDR (Conférence Européenne des Directeurs des Routes / Conference of European Directors of Roads), motorways in the UK have by some margin the lowest rate of fatal accidents of any roads in Europe<sup>1</sup>. And smart motorways are statistically the safest roads in England.

The design standard for smart motorways was adopted following a comprehensive safety assessment and hazard analysis which demonstrated that they would be at least as safe as, or safer, than the conventional motorways they replaced.

Each smart motorway scheme must also meet this same strict test: to be at least as safe as, or safer than, the traditional motorway it replaced. We carefully monitor all schemes after delivery to ensure that this standard is met in all cases.

Smart motorways incorporate a number of important features designed to improve the safety of people using them. These include technology to monitor traffic flow, set variable speed limits to ease congestion, and give information to drivers, such as closing lanes via Red 'X'. And smart motorways are safe, with the number of fatalities and serious injuries extremely low given the volume of traffic using them.

However, risk cannot be eliminated entirely from roads. Hard shoulders do not eliminate the risk of collision and, indeed, 8% (or 1 in 12) of all deaths on motorways are on hard shoulders. The specific risk posed by the absence of hard shoulders on all lane running smart motorways, and in particular the greater risk of collision between stationary and moving vehicles has been recognised throughout. But that specific increased risk is outweighed by the reduction in other risks brought about by all lane running smart motorways. The evidence has demonstrated that all lane running smart motorways lead to fewer, not more, deaths.

All lane running schemes are designed to, and do, operate extremely safely without the need for stopped vehicle detection (SVD) technology. But SVD systems can make all lane running smart motorways safer still, by automatically detecting stopped vehicles on the carriageway and thereby enabling a more rapid response. In 2013 the Highways Agency identified an automated SVD system to further reduce the risks of vehicles stopped in live lanes, and this was trialled between 2014 and 2016. Following successful trials, in September 2016 it was decided that SVD would be included as standard in all new all lane running schemes entering the design stage. The standard requires a coverage of at least 95% of the carriageway, with a minimum detection accuracy of 80% and a maximum time to alert an operator of 30 seconds.

A decision was subsequently taken to retrofit SVD to all existing all lane running smart motorways. This is an ambitious, highly engaged and complex programme, which the Government and Highways England have committed to completing by the end of 2022. Work on the M1 junctions 32-35a, where the incident occurred, has started and the technology should be operational by Summer 2021.

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<sup>1</sup> <https://www.cedr.eu/download/Publications/2020/CEDR-Technical-Report-2020-01-TEN-T-2019-Performance-Report.pdf>

In October 2019, the Secretary of State for Transport asked his department to review the safety evidence in relation to smart motorways. In March 2020, the Department for Transport (DfT) published a *Smart Motorway Safety Evidence Stocktake and Action Plan*<sup>2</sup>.

The Action Plan set out 18 measures to make smart motorways even safer than they already are, and to tackle the negative public perception of, and build public confidence in, their safety:

- Ending the use of dynamic hard shoulders by March 2025
- Faster rollout of stopped vehicle detection - Highways England asked to deliver this in 36 months, bringing this programme forward by several years
- Faster attendance by more Highways England traffic officer patrols
- Committing to a new standard for spacing of places to stop in an emergency
- Delivering ten additional emergency areas on the M25
- Considering a national programme to install more emergency areas on existing smart motorways
- Investigating M6 Bromford viaduct and sections of the M1
- Making emergency areas more visible
- More traffic signs giving the distance to the next place to stop in an emergency
- More communication with drivers (committing an additional £5 million to national and targeted communication campaigns, including advice on what to do in case of a breakdown)
- Displaying 'report of obstruction' messages
- Places to stop in an emergency shown on your satnav
- Making it easier to call for help if broken down
- Changed the law to enable automatic detection of Red 'X' violations and enforcement (3 points, £100 fine) using cameras
- An update of The Highway Code
- Closer working with the recovery industry
- Reviewing existing emergency areas where width is less than the current standard
- Reviewing the use of red flashing lights

Highways England, working in partnership with the DfT and other stakeholders, has made and continues to make good progress in delivering on the Action Plan. In the 12 months since the Stocktake and Action Plan were published:

- We have progressed our commitment to end the use of dynamic hard shoulders by March 2025. At the time of this response, 7 schemes are at the preliminary design and survey stage.
- We are progressing our commitment to install SVD on every all lane running smart motorway. We have so far installed SVD on the M25 junctions 5-6 and junctions 23-27 (which covers all 25 miles of all lane running on the M25), M3 junctions 2-4a and M20 junctions 3-5. Work has also begun on M1 junctions 32-35a. In addition, we have completed a

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<sup>2</sup>[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/936811/smart-motorway-safety-evidence-stocktake-and-action-plan.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936811/smart-motorway-safety-evidence-stocktake-and-action-plan.pdf)

large-scale trial of a system that analyses CCTV images to identify stopped vehicles on the M4 junctions 19-20.

- We are on target to deliver the roll-out of changes to our traffic officer patrols to increase traffic officer presence on smart motorway sections, where the average distance between places to stop in an emergency is more than one mile. This supports the aim, by July 2021, to reduce the average time it takes traffic officers to attend incidents from 17 to 10 minutes.
- We have published a new design standard for the provision of places to stop in an emergency. The new design standard (GD 301), which applies to all schemes entering the design stage, means that a place of relative safety will be spaced at  $\frac{3}{4}$  miles apart, with a maximum of one mile where  $\frac{3}{4}$  mile spacing is not feasible<sup>3</sup>
- We have installed 10 additional emergency areas on the M25 and we have begun a programme to monitor their impact on live lane breakdown rates to understand if they have reduced the level of live lane stops
- We are developing delivery programmes for additional safety measures for the M6 Bromford viaduct and four sections of the M1 (including the location of this incident). To inform this programme we commissioned independent reports and have undertaken feasibility studies of potential additional measures.
- We have upgraded all existing emergency areas on smart motorways to have bright orange surfacing and marked stopping areas.
- We have completed initial surveys in readiness for installing more signs in between places to stop in an emergency. We expect to install around 1,000 new signs.
- We have continued to run public information campaigns focusing on specific elements of motorway driving. In 2020 these included activity urging drivers not to drive in lanes closed by Red 'X' signs, to adhere to variable speed limits and to keep left (February/March); a summer campaign encouraging drivers going on holiday or day trips to check their vehicles before setting out, to reduce the risk of breakdowns (July/August); and a campaign discouraging tailgating, a factor in around 1 in 8 casualties on England's motorways and major A-roads (September/October).
- We have also committed an additional £5 million this year on a campaign to improve driver awareness further. On 10 March 2021 we launched a national targeted campaign to increase road user confidence and awareness of what to do in the event of a breakdown. This included TV advertisement, additional short films, and print and digital advertising to ensure maximum reach amongst the target audience. The campaign launch was subject to changes in Government travel guidance and was accordingly postponed from January 2021. Key messages conveyed by the campaign includes:

The advice to drivers who experience a problem with their vehicle is to leave the motorway if possible. But if that is not possible Highways England recommends the following, which can also be found on our website here: <https://highwaysengland.co.uk/road-safety/breakdowns/>

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<sup>3</sup> with some exceptions where not feasible to construct additional emergency areas, such as where junctions intersect or on bridges

If your vehicle has a problem, or you get into trouble on a motorway, stay calm and try to exit at the next junction or motorway service area. If that's not possible:

**Go left**

- put your left indicator on and move into an emergency area, onto a hard shoulder, motorway service area, left-hand verge or A-road lay-by.
- switch your hazard warning lights on, even during the day. If it's dark, use side lights and in poor visibility use fog lights as well
- on a motorway without a hard shoulder, it should be possible for most vehicles experiencing a problem to reach an emergency area. These are spaced regularly, and are marked by a clearly visible orange road surface and blue signs featuring an orange SOS telephone symbol.

**Get safe**

- if it is safe to do so, and you can get out with any passengers, exit your vehicle on the side furthest from traffic. If it is not safe to do so, stay in your vehicle and wait for help.
- keep well away from moving traffic and your own vehicle. Get behind a safety barrier where there is one, and where it is safe to do so. If you're on a verge, be aware of any unseen hazards such as uneven ground or debris.

**Get help**

- contact Highways England on 0300 123 5000 and then a breakdown recovery provider.
- if you are unable to exit your vehicle and get to a safe place, have stopped in a live traffic lane or feel your life is in danger, stay in your vehicle with your seatbelts and hazard lights on and call 999 immediately.

The Highways England website also includes information on how to drive on motorways: <https://highwaysengland.co.uk/road-safety/how-to-drive-on-motorways/>

- We have begun rolling out automated “report of obstruction” messages on signals when SVD technology identifies a potential incident. “Report of obstruction” messages were enabled on the M3 junctions 2-4a in December 2020.
- In March 2021, we made location information for all smart motorway emergency areas available to satnav providers
- We have engaged with car manufacturers to help build greater awareness of eCall (SOS, which has been fitted to new cars as standard from April 2018) and bCall (roadside assistance) functions in newer cars.
- We have begun to upgrade HADECS enforcement cameras and associated technology to provide automated detection to facilitate the enforcement of Red 'X' violations across the whole smart motorway network. As at the date of this response we have upgraded 39% of all cameras. The Road Traffic Offenders (Prescribed Devices) Order 2019 came into force on 10 June 2019 to enable recordings to be used in the enforcement of Red 'X' violations (3 points, £100 fine).
- We have drafted new provisions for The Highway Code to provide more guidance for motorists driving on high-speed roads, including smart

	<p>motorways. A 4-week consultation on these proposed amendments commenced in early March 2021 and finished end of March 2021.</p> <ul style="list-style-type: none"> <li>• We have signed a strategic partnership agreement to strengthen our relationship with the independent recovery industry, setting out a common and agreed set of safe operating procedures for use across the industry when helping road users who get into difficulty on smart motorways.</li> <li>• We have commissioned an independent review of the widths of operational emergency areas. This found that 13 were less than 4.4 metres wide, but that all 13 are wider than the 3.3 metre width of a hard shoulder. We are now working on completing safety risk assessments to help guide our next steps for widening any narrow emergency areas.</li> <li>• The Department for Transport has completed its review of existing evidence relating to the use of red flashing lights. Ministers have agreed to implement off-road trials to understand the likely impact of allowing the use of red flashing lamps for road recovery operators, and to work with the recovery industry to promote best working practices and develop specific industry guidance on vehicle lighting.</li> </ul> <p>On 26 February 2021, the Transport Select Committee publicly announced that it would conduct an inquiry into the roll-out and safety of smart motorways, with a particular focus on:</p> <ul style="list-style-type: none"> <li>• The benefits of smart motorways, for instance to reduce congestion on busy sections of motorway, and how necessary they are</li> <li>• The safety of smart motorways, the adequacy of safety measures in place and how safety could be improved</li> <li>• Whether all lane running motorways are the most suitable type of smart motorway</li> <li>• Public confidence in smart motorways and how this could be improved</li> <li>• The impact of smart motorways on the usage and safety of other roads in the strategic road network</li> <li>• The effectiveness of Highways England's delivery of the smart motorways programme, the impact of construction works, and the costs of implementation</li> </ul> <p>Highways England welcomes this inquiry, and is committed to assisting the Committee in whatever way it can.</p> <p>Highways England has attended two previous smart motorway Transport Select Committees in 2016 and 2019.</p>
4	<p><b>DETAILS OF FURTHER ACTION PROPOSED</b></p> <p>Highways England is committed to ensuring that all roads for which it is responsible remain extremely safe and, indeed, to continuing to make them safer still. As part of this, we will continue to deliver on the Smart Motorway Safety Action Plan. One year on from its publication we have made good progress and we will continue with this important programme of work.</p> <ul style="list-style-type: none"> <li>• We will end the use of dynamic hard shoulder motorways by March 2025 by converting the current 63 miles of dynamic hard shoulder into a permanent traffic lane providing greater consistency for motorists and reducing the potential for confusion.</li> </ul>

- We will continue to retrofit SVD to all existing all lane running motorways and will complete this programme by the end of 2022.
- We will continue with our programme to increase traffic officer presence on smart motorways, where the average distance between places to stop in an emergency is more than one mile, and reduce the attendance times.
- We will continue to ensure that all newly designed smart motorways starting design from November 2020 conform to the new design standard, including in relation to the spacing of places to stop in an emergency.
- We will continue to monitor and assess the evidence relating to live lane breakdowns, and to safety on smart motorways in general, and make necessary design changes (including increasing the frequency of places to stop) if the evidence supports it.
- We will complete our programme of installing more signs in between places to stop in an emergency.
- We will continue to invest to improve driver awareness.
- We will we will work with the DfT to review whether the emergency area data we made available to satnav providers is being shared with drivers.
- We will continue to work with stakeholders to agree the key messages for a public information campaign focusing on the use of eCall (SOS) and bCall (breakdown assistance) buttons in vehicles which will run later in 2021.
- We will, in partnership with the DfT, publish the updated Highway Code by March 2022.
- We will continue rolling out changes to automate “report of obstruction” messages on variable message signs when SVD technology identifies a stopped vehicle.
- We will complete, by July 2023, our programme to upgrade HADECS enforcement cameras and associated technology to provide automated detection to facilitate the enforcement of Red ‘X’ violations across the whole smart motorway network.
- We will complete our programme to widen emergency areas which are narrower than the current standard.

**5 TIMETABLE FOR ACTION**

<b>Future Action</b>	<b>Date</b>
Publish the findings of our safety reviews for the M6 J5-6 and M1 J10-13, J30-35, and J39-42.	June 2021
Implement action plans to reduce Traffic Officer attendance time from an average of 17 minutes to 10 minutes.	July 2021
More communication with drivers – second run of campaign launched in March 2021	November 2021
Complete the monitoring of live lane breakdowns on the M25 after the installation of 10 new emergency areas.	December 2021

	SVD operational on the M1 J32-35a.	Summer 2021
	Deliver a public information campaign communicating the benefits of eCall and bCall functions to road users	Autumn 2021
	Update of The Highway Code	March 2022
	Explore the feasibility of a national retrofit programme of emergency areas	April 2022
	Complete national rollout of SVD on existing ALR sections	End of 2022
	Automate the display of 'report of obstruction' messages	March 2023
	Install additional traffic signs giving the distance to the next place to stop in an emergency	March 2023
	Complete the upgrade of HADECS3 cameras to enforce Red 'X' compliance	July 2023
	End the use of dynamic hard shoulders.	March 2025
	Work with the DfT to review whether the emergency area data we made available to satnav providers is being shared with drivers	Ongoing
6	<p><b>SAFETY OF ROAD USERS</b></p> <p>Every road death is a tragic loss of life. We are determined to reduce the number of fatal incidents, and injuries, on our roads and we want everyone who travels or works on any of our roads to feel confident and safe.</p> <p>Although roads, especially high-speed roads, can never be risk-free environments, our absolute priority is the reduction of road deaths and serious injuries on our network.</p> <p>This is why we invest in road safety initiatives and public awareness campaigns, to help prevent death and injury and to help give drivers the information they need, to have safe journeys. This is in addition to information provided in other areas, for example The Highway Code.</p> <p>The <i>Smart Motorway Safety Evidence Stocktake and Action Plan</i> published by the Government in March 2020 set out 18 measures to improve safety and build greater public confidence in smart motorways. We welcomed the stocktake and action plan as an opportunity to further improve the safety of smart motorways.</p> <p>We are constantly listening to motorists, continually assessing how we can make motorways safer for those who use them.</p> <p>We urge road users to act safely and sensibly, including by informing themselves about what to do in an emergency<sup>4</sup>, who to contact, and how to avoid dangerous situations where possible, thereby minimising the risks to themselves and other</p>	

<sup>4</sup> The Highways England website provides guidance on what to do in case of a breakdown on any motorway: <https://highwaysengland.co.uk/road-safety/breakdowns/>



road users. We have recently launched our biggest ever, high profile multi-media road safety campaign to help drivers know what to do if they break down on any motorway, including one without a hard shoulder.

Respectfully, we would ask that coroners use the means at their disposal to reinforce this message as appropriate. I have previously written to the Chief Coroner to make this request of coroners.

Regarding this incident, we understand, following the initial collision, Mr Mercer drove his car for about 500m, and stopped in a live lane close to a sign indicating the nearest emergency telephone was one mile away.

Sadly, as you found at the hearing, and as [REDACTED] remarked when passing sentence, [REDACTED] driving was the main cause of this tragic incident.

We want to prevent further tragedies. We have listed earlier in this report the measures we have taken since the publication of the stocktake. We believe our actions are having an effect and will continue to make a difference.

Independent analysis provided by Transport Focus from the National Road User Satisfaction Survey over the period 2014/15 to 2019/20 demonstrated year-on-year improvements in the awareness of:

- Emergency areas (58% in 2019/20 compared to 36% in 2014/15);
- Use of the hard shoulder as an extra lane during busy times (74% in 2019/20 compared to 64% in 2014/15);
- Understanding when there is no hard shoulder when it permanently converts to a traffic lane (64% in 2019/20 compared to 39% in 2014/15).

But we are not complacent. The deaths of Mr Mercer and Mr Murgeanu were tragic. Our deepest sympathies remain with their loved ones.

We remain committed to improving communication with road users and to taking steps to further improve the safety of smart motorways.

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**06 April 2021**

**Signed:**

[REDACTED]

[REDACTED] **Safety, Engineering and Standards  
Executive Director and Chief Highways Engineer,  
on behalf of [REDACTED], Acting Chief Executive of  
Highways England**