	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS
	THIS RESPONSE IS BEING SENT TO:
	The Assistant Coroner for the Coroner Area of Bedfordshire and Luton, Mr Tom Stoate of The Court House, Woburn Street, Ampthill, Bedfordshire, MK45 2HX in response to a 'Regulation 28 Report to Prevent Future Deaths' following an inquest hearing into the death of Zahid Ahmed that concluded on 14 January 2021.
1	HIGHWAYS ENGLAND
	I am Chief Highways Engineer , responding on behalf of Chief Highways Engineer , responding on behalf of Chief Highways England Company Limited of Bridge House , 1 Walnut Tree Close, Guildford, Surrey, GU1 4LZ.
	Highways England did not fall within the statutory definition of an Interested Person as contained at Section 47(2) of the Coroners and Justice Act 2009 and did not otherwise receive notification of the inquest hearing date or a request to attend the inquest.
	As such, we were not present at the hearing and had no prior awareness of the discussions which occurred or the conclusions that were reached. We were therefore not afforded the opportunity to provide input to the inquest as the highway authority.
	In complying with our duty, Highways England have responded within 56 days of the date of the Regulation 28 report to prevent future deaths, namely by 29 April 2021.
2	CORONER'S MATTERS OF CONCERN
	The MATTERS OF CONCERN were identified as follows: -
	1) The stretch of the M1 motorway where this fatal collision occurred is part of the 'Managed Motorway', which runs from Junction 13 to Junction 10. It features variable speed limits and, in places, an 'actively managed hard shoulder', which is a hard shoulder that in certain circumstances may be driven on. Variable speed limit and 'hard shoulder running' information is conveyed to drivers via electronic matrix signals message boards, and verge signs positioned along the Managed Motorway. These signals are controlled by operators within the Highways Agency Eastern Regional Control Centre (ERCC). At around 400m south of the Toddington Services southbound entry, the hard shoulder commences and is managed for a distance of around 1.1 km, before the motorway becomes designated 'All Lanes Running' (ALR) again around 500m north of Junction 11a. Travelling south from Junction 12, however, the motorway is ALR, and there is no hard shoulder.
	2) Detective Constable Constable Constable , of the Bedfordshire Police Serious Collision Investigation Unit, gave evidence at Mr Ahmed's inquest as follows: "The absence of a hard shoulder contributed to the collision. Had the [deceased's] vehicle been able to stop in a location other that a live lane, the offending HGV would not have driven into the back of it".

3) The vehicle in which the deceased was a passenger suffered a mechanical defect which caused it to lose power. It is not clear where the vehicle could have pulled to a halt in a safe place in these circumstances, given that there was no hard shoulder and all lanes were live.

3 DETAILS OF ACTION TAKEN

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.

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 conventional road widening. At the same time, the Government's Stocktake demonstrates that smart motorways have 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.

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 Europe¹, in terms of fatality rates, smart motorways are the safest roads in the country.

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 conventional 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 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

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

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 safely without the need for radar 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.

Action will now be 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 September 2022.

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 an <u>Evidence Stocktake and Action</u> <u>Plan for Smart Motorway Safety</u>. 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.

We have recently published our <u>Smart motorways stocktake first year progress</u> report 2021. This sets out our progress in delivering the March 2020 Action Plan, the latest evidence on the safety of smart motorways, and commitments we are making to accelerate measures to further help drivers feel safe and be safer on smart motorways.

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 technology on every all lane running smart motorway. We have so far trialled SVD on the M25 junctions 5-6 and junctions 23-27 (which covers all 25 miles of all lane running on the M25). The technology is currently being commissioned on the M3 Junctions 2 to 4a and M20 Junctions 3 to 5. Work on the M1 Junctions 32 to 35a started in February 2021. We have also completed the design stages on three further schemes. In addition, we have completed a 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
•	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 ²
•	We have installed 10 additional emergency areas on the M25 and we have begun a programme to monitor their impact on live lane breakdown
•	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. The measure details are included in the "Details of further action proposed" section of this response
•	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 ac motory the the the the the the the the the the	dvice to drivers who experience a problem with their vehicle is to leave the way if possible. But if that is not possible Highways England recommends following, which can also be found on our website here: <u>//highwaysengland.co.uk/road-safety/breakdowns/</u>

 $^{^{\}rm 2}$ 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:
Goleft
 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: <u>https://highwaysengland.co.uk/road-safety/how-to-drive-on-</u>
. We have haven relling out outerpated "report of chatguation" managemen
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 satnay 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

	 Motorways. A 4-week consultation on these proposed amendments commenced in early March 2021 and finished end of March 2021. 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. 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. The Department for Transport has completed its review of existing evidence relating to the use of red flashing lamps. 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.
	it would conduct an inquiry into the roll-out and safety of smart motorways, with a particular focus on:
	 The benefits of smart motorways, for instance to reduce congestion on busy sections of motorway, and how necessary they are The safety of smart motorways, the adequacy of safety measures in place and how safety could be improved Whether all lane running motorways are the most suitable type of smart motorway Public confidence in smart motorways and how this could be improved The impact of smart motorways on the usage and safety of other roads in the strategic road network The effectiveness of Highways England's delivery of the smart motorways programme, the impact of construction works, and the costs of implementation
	Highways England welcomes this inquiry, and is committed to assisting the Committee in whatever way it can.
	Highways England has also previously attended two previous smart motorway Transport Select Committees in 2016 and 2019.
4	DETAILS OF FURTHER ACTION PROPOSED
	Highways England is committed to ensuring that all roads for which it is responsible remain safe and, indeed, to continuing to make them safer still. As part of this, it will continue to deliver on the <u>Smart motorway evidence stocktake</u> and action plan. One year on from its publication we have made good progress and we will continue with this important programme of work.
	We have published our <u>Smart motorways stocktake First year progress report</u> <u>2021</u> which sets out our progress in delivering the March 2020 Action Plan, the latest evidence on the safety of smart motorways, and commitments we are

making to accelerate measures to further help drivers feel safe and be safer on smart motorways.

- As noted above, 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. We intend to publish the findings of our safety reviews in June 2021.
- 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.
- We will continue to retrofit SVD to all existing all lane running motorways and will complete this programme by the end of September 2022. This is six months earlier than the 2020 Action Plan commitment. We have also made a new commitment that all new schemes will have SVD technology installed before they open, including the six schemes currently in construction.
- 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. In the 2020 Action Plan we committed to complete the M25 monitoring period by 31 December 2021. We have accelerated this commitment to complete the monitoring and present a report to the Department for Transport by the end of August 2021.
- We will complete our programme of installing more signs in between places to stop in an emergency by September 2022, six months earlier than the 2020 Action Plan commitment.
- 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 Autumn 2021.
- 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 September 2022, 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	
	Future Action	Date
	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
	Update of The Highway Code	Autumn 2021
	Complete the monitoring of live lane breakdowns on the M25 after the installation of 10 new emergency areas.	August 2021
	Deliver a public information campaign communicating the benefits of eCall and bCall functions to road users	Autumn 2021
	More communication with drivers – second run of campaign launched in March 2021.	November 2021
	Consider a national programme of retrofitting additional emergency areas on existing smart motorways where places to stop in an emergency are more than one mile apart	April 2022
	Complete national rollout of SVD on existing ALR sections	September 2022
	Install additional traffic signs giving the distance to the next place to stop in an emergency	September 2022
	Complete the upgrade of HADECS3 cameras to enforce Red 'X' compliance	September 2022
	Automate the display of 'report of obstruction' messages	March 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	SAFETY OF ROAD USERS Every road death is a tragic loss of life. We are determined to of fatal incidents, and injuries, on our roads and we want e or works on any of our roads to feel confident and safe. Although roads, especially high-speed roads, can environments, our absolute priority is the reduction of road on our network. This is why we invest in road safety initiatives and public aw to help prevent death and injury and to help give drivers need, to have safe journeys. This is in addition to informati areas, for example The Highway Code. The Smart Motorway Safety Evidence Stocktake and Action	o reduce the number veryone who travels never be risk-free I deaths and injuries vareness campaigns, the information they on provided in other
1	the Government in March 2020 set out 18 measures to impr	ove safety and build

	action plan as an opportunity to further improve the safety of smart motorways.
	We are constantly listening to motorists, continually assessing how we can make motorways safer for those who use them.
	We urge road users to act safely and sensibly, including by informing themselves about what to do in an emergency ³ , who to contact, and how to avoid dangerous situations where possible, thereby minimising the risks to themselves and other 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 tragic incident, we note from the Police Forensic Collision Investigation report that the vehicle which was struck, a Kia, suffered a defect which caused it to lose power and the engine check light to illuminate on the instrument panel.
	The driver was able to exit the main carriageway and entered an emergency area. At this point the driver should have contacted Highways England for advice via the emergency telephone provided before re-joining the carriageway. He could have also contacted a breakdown recovery service for assistance.
	The Kia remained stationary in the emergency area for 12 seconds and then re- entered the main carriageway. Shortly after, the Kia stopped in lane one, 145m south of the emergency area. It was struck by a Scania HGV approximately one minute later.
	We note that Hereinen , the driver of the Scania HGV, received a 46-month custodial sentence for causing death by dangerous driving and for causing serious injury by dangerous driving. In addition, he was disqualified from driving for a lengthy period.
	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);

³ The Highways England website provides guidance on what to do in case of a breakdown on any motorway: <u>https://highwaysengland.co.uk/road-safety/breakdowns/</u>

	Understandi converts to a 2014/15).	ng when there is no hard shoulder when it permanently a traffic lane (64% in 2019/20 compared to 39% in
	But we are not compla sympathies remain with driver and other passer	icent. The death of Mr Ahmed was tragic. Our deepest in his loved ones. We also extend our sympathies to the ingers in the vehicle for the injuries they sustained.
	We remain committed to steps to further improve	o improving communication with road users and to taking the safety of smart motorways.
8	29 April 2021 S	Signed: