M6 Junction 16-19 Smart Motorway
Variable Mandatory Speed Limit -
Consultation Report

Date:  

Version: 0.1
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Executive Summary

The M6 junctions 16 to 19 smart motorway all lane running scheme will be implemented on the Highways England's (formerly Highways Agency) network to the design set out in Interim Advice Note 161/13. A key part of smart motorways is the use of variable mandatory speed limits (VMSL). The consultation provided an opportunity for interested parties and individuals to comment on the proposal to introduce VMSL between junctions 16 and 19 on the M6.

Regulations will need to be made under section 17(2) and (3) of the Road Traffic Regulation Act 1984 (“the 1984 Act”) for the implementation of VMSL for the M6 junction 16 to 19 smart motorway scheme and to enable amendments to be made to the Motorways Traffic (England and Wales) Regulations 1982 (S.I. 1982/1163) (“the 1982 Regulations”) which govern the use of motorways.

A consultation paper was issued to 141 consultees and the consultation was open to public participation through the Highways Agency (now Highways England) and GOV.UK’s website. The consultation encouraged representative organisations, businesses and the general public affected by the proposed regulations to register their views with Highways England on the proposal.

The consultation period began on 29th June 2015 and ended on the 9th August 2015. This paper provides a summary of the consultation responses and details how the responses have been considered and taken forward. A total of 17 responses were received during the course of the consultation, although a number of comments are beyond the scope of the consultation and have been answered.

Following the consultation it is recommended that the Secretary of State proceed with making the Regulations necessary to allow for the implementation of VMSL on the M6 between junctions 16 and 19.

(Explanatory note: We now refer to managed motorways as smart motorways which encompass all sections of our network that incorporate technology to manage congestion and improve journey time reliability. This includes controlling speeds through the use of VMSL to improve traffic flow and providing driver information on overhead signs.)
1.0 Introduction

1.1 Purpose

This document is intended to provide a summary of the responses that we received following formal consultation on the introduction of Variable Mandatory Speed Limits (VMSL) on the M6 between junctions 16 and 19. The consultation was undertaken between 29th June 2015 and 9th August 2015 provided an opportunity for stakeholders, such as road user groups and other interested parties to comment on the proposed implementation of VMSL between junctions 16 and 19 of the M6. Highways England (formerly the Highways Agency) has considered the comments raised by consultees and this document summarises its response to those comments.

1.2 Background

The M6 between Birmingham and Manchester is a strategic route that forms part of the Trans-European Road Network (TERN – Route E-5) and is part of the Highways England’s Strategic Road Network connecting the Midlands, the North West of England, Scotland and Wales.

To make the UK’s infrastructure fit for the 21st century; the government published its National Infrastructure Plan (2013) alongside the autumn statement. The objectives of this document included the following ambitions which the M6 J16-19 Smart Motorway All Lane Running (SM-ALR) scheme has worked to:

i. exploit innovative technologies to explore new opportunities to make the best use of road capacity; for example: building on pioneering smart motorway schemes and applying it to some of our busiest national routes;
ii. reduce the estimated whole life cost of smart motorways schemes;
iii. reduce the timescale for construction; and
iv. improve journey time reliability by reducing congestion on the network.

The project was included in the list of schemes to be delivered between 2015 and 2020 in the Roads Investment Strategy (2015) and is considered a funded project.

The smart motorway all lanes running solution consists of converting the hard shoulder into a permanently running lane in areas of the strategic network that suffers from frequent heavy congestion. Smart motorways also implement the use of variable mandatory speed limits, this works by reducing the speed limit during peak congestion times to ease the flow of traffic.

The purpose of smart motorways is to reduce congestion; they improve journey time reliability by smoothing traffic flow – all achieved through using variable speed limits and giving more road space to road users by making the hard shoulder available as a traffic lane.

Concerns are often raised over the removal of the hard shoulder; however we know that using the hard shoulder can be done without worsening safety for road users and those who work on our roads. Our motorways are among the safest roads in the world. We are confident that the all lane running design presents a solution and that means the motorway section will remain at least as safe as it is now. Emergency refuge areas will also be created so that a driver would have no further than 2.5km between each safe exit point from the motorway.
Some broken down vehicles will not be capable of ‘limping’ to an area of refuge and will come to a stop in a live running lane. The extra controls provided through smart motorway’s features will mitigate this risk. It is expected that the overall risk of the current design of smart motorways is likely to be less than that on dual three lane motorway with a hard shoulder.

The decision to implement an ‘all lane running’ scheme is based upon robust analysis by experienced professionals using tested methodologies, which demonstrates that the safety objectives are likely to be achieved and that road user safety is likely to be no worse. Our analysis predicts that smart motorways all lane running will see an improvement in the order of 15% in safety risk compared to a motorway with a hard shoulder.

1.3 Consultation Topic

The consultation aimed to seek views on the introduction of VMSL - i.e. no other aspect of the scheme. The intention was to seek views on draft regulations for the M6 junctions 16-19 smart motorway from affected organisations, businesses and individuals.

1.4 Document structure

Section 1 provides a background to the consultation.

Section 2 describes how the consultation was conducted and how responses from consultees were considered.

Section 3 contains a summary of the consultation responses and analysis of each response.

Section 4 contains a summary of the approach to the consultation and the recommended way forward.
2.0 Conducting the consultation exercise

2.1 What was the consultation about

This consultation provided an opportunity for interested parties to comment on the proposal to introduce VMSL for the M6 junctions 16 to 19 smart motorway all lane running scheme.

2.2 Legislative changes

Regulations have been proposed to be made under section 17(2) and (3) of the Road Traffic Regulation Act 1984 (“the 1984 Act”) for the implementation of VMSL for the M6 junctions 16 to 19 smart motorway all lane running scheme and to enable amendments to be made to the Motorways Traffic (England and Wales) Regulations 1982 (S.I. 1982/1163) (“the 1982 Regulations”) which govern the use of motorways. The proposed Regulations will restrict drivers from driving within the area of the smart motorways scheme at a speed exceeding that displayed on the speed limit signs, or the national speed limit where no other speed limit sign is displayed.

The relevant legislative power in the 1984 Act permits the making of Regulations that regulate the manner in which, and the conditions subject to which, motorways may be used by traffic authorised to use such motorways.

Within the M6 junctions 16 to 19 smart motorway all lane running scheme it will be an offence to use a motorway in contravention of Regulations applying to the scheme made under section 17(2) of the 1984 Act. A more detailed explanation of the changed regulations is given within the M6 junctions 16 to 19 smart motorway all lane running scheme Consultation document for statutory instrument.

2.3 How the consultation was conducted

The consultation was carried out in accordance with the Government’s consultation principles which are available here. The consultation paper was issued to 141 consultees on 29th June 2015. The consultation documents were made available on Highways England’s and GOV.UK websites allowing the public to comment on the proposed legislative changes. The start of the consultation period was accompanied by a press notice. All parties affected by the proposed legislative changes were encouraged to make contact with Highways England to provide their views. The consultation closed on 9th August 2015.

2.4 Publicising the Consultation

To publicise the consultation we wrote to a large number of statutory consultees (all these can be found listed at the back of our consultation document) before the consultation began advising them that we would be holding a VMSL consultation and requesting responses to our online survey. We also publicised the consultation by announcing it on the government website and on our own scheme specific webpage welcoming responses from other businesses and individuals.
2.5 Number of Responses

We had a total of 17 responses to the online survey for the consultation.

Two of these were from the 141 consultees that we wrote to, these being the RAC Motoring Services and Road Haulage Association, one was from an individual representing a secondary school and a further 14 from members of the public.

In total we wrote to 141 statutory consultees and having only two responses from them was disappointing, however we feel the responses we received gave us a good insight to views of those consultees affected.

2.6 Questionnaire Analysis

Within the online response questionnaire we asked three questions each with a yes/no response. There was then a section below each question for comments to further explain the reason for their answer, most people took up the opportunity to explain the reasoning for their answer.

Question 1

Do you consider that the proposal to introduce the Smart motorway scheme on the M6 between junctions 16 and 19 will lead to an improvement in travelling conditions on this section of motorway?

Question 2

Are there any aspects of the proposal to introduce the Smart motorway scheme on the M6 between junctions 16 and 19 which give you concerns?

Question 3

Are there any additional comments you would like to make about the proposal to introduce the Smart motorway scheme on the M6 between junctions 16 and 19?

The purpose of the questions we used was to find out what kind of support the introduction of the scheme is receiving from affected organisations and members of the public, we also wanted to know of any concerns the introduction of the scheme and VMSL was causing. This was with the intention to either lay people’s concerns to rest or take them into account and amend the scope or design of the scheme.

These questions also came from the recommendations of the Department for Transport legal team and communication team.
3.0 Summary of Responses

3.1 Introduction

We had an equal mix of support and concerns regarding the introduction of the VMSL on the M6 between junctions 16 and 19. We also had a number of responses that was not related to VMSL but more to the scheme itself. Although many were not related to the SI consultation, we responded to each response we received on an individual basis addressing all questions/comments and queries mentioned.

This section will be structured by highlighting each of the key question themes that emerged in the consultee responses.

3.2 Demonstrated Success of the System - VMSL

In one particular response to our consultation, we received the following comments “The introduction of variable speed limits is dangerous, as drivers WILL brake harshly (the vast majority do not know about the 10 seconds rule) in order to avoid a possible fine. I am a qualified ADI, I've seen drivers brake harshly in other stretches of motorways where there are variable speed limits and active traffic management. I have seen first hand too how it really does NOT prevent congestion and if anything makes it worse.”

In response, we used our evidence of how we know VMSL works and took into account the design of the scheme to ensure that the gantries are placed in suitable locations with clear visibility so that drivers do not have to brake harshly upon seeing a lower speed limit. We are therefore content that what we responded with is accurate information. We responded to this particular concern with the following.

“One of the key features of smart motorways is variable mandatory speed limits. These speed limits displayed on the motorway come into operation when traffic volumes increase and the sensors activate lower speeds. Reducing speed during peak demand decreases stop-start conditions and allows traffic to move smoothly. Gantries displaying the mandatory speed are sited in areas with clear visibility, meaning there is enough time for a vehicle to lower its speed in a controlled and safe manner between seeing the sign and passing beneath it.”

3.3 Increased likelihood of incidents

As with the above response stating that VMSL is dangerous, we know this not to be true as we have already implemented VMSL on other stretches of the strategic highways network which have proved to work very successfully, and although smart motorways are not intended to make the motorway safer (although worsening safety would not be acceptable) evidence from smart motorway schemes already in operation has actually proved to have reduced accidents.

Another reason we feel VMSL does not create dangerous breaking situations is that the lower speed limits come into operation when the traffic proves to be flowing slower, therefore drivers do not break harshly as the congestion is already building and the traffic slowing. VMSL is in operation to ease congestion, not slow freely moving traffic.
3.4 Size and Spacing of Emergency Refuge Area safety / Loss of Hard Shoulder

We had a response raising concerns over how the removal of the hard shoulder could be dangerous for vehicles that break down. “The removal of the hard shoulder is a concern. This makes the motorway more dangerous for those whose vehicles breakdown and cannot reach an ERA.”

To address the responder’s concerns, we explained the reasoning for the distance that ERAs are spaced and the system for incident detection and recovery. Our response to these concerns is below.

“We note your concerns regarding the removal of the hard shoulder. Emergency refuge areas will be sited so that a driver has no further than 2.5km to travel between each nearest safe exit point from the motorway, whether this is a junction, motorway service area or emergency refuge area. In the majority of cases, from discovering a problem with a vehicle, this is a short enough distance for a driver to reach an exit point. Only very rarely would a car be forced to stop in a live lane. Should this situation occur, this will be picked up by our control centres either through CCTV coverage or the detection technology in the roads. Safe removal of the vehicle is then arranged.”

3.5 Communication

In one particular response, an individual provided some comments regarding the communication problems the individual experienced from a previous Highways England scheme.

“Please do not make the same mistakes with the J16-J19 scheme as are being made on the M60 with regard to information on the scheme. Examples: Scope change not publicised (e.g. J12-15 lane gain quietly removed from scope from phase 1 and now phase 2). H.A. have refused to remove this from the website even though it’s misleading despite multiple requests to do so. No publications / newsletters / information - only road closures (which are not always accurate). Badly signed - excessive number of road signs used - in some places 20 + within 100 yards (counted - not estimated). No public updates made on progress - general perception is that it took 12 months just to put narrow lanes in place. Misleading comments - issues with gantry removal and subsequent investigation were publicly stated would be made available before any additional gantries were removed - this was not done. No apologies made for over-running works (e.g. road closures). Social media accounts being used more to show PR points and nothing to do with progress. Website must be kept up to date with a minimum number of newsletters / updates to be provided.”

Within the M6 J16-19 project team we are committed to providing as much information to the public as possible with complete honesty, although we within the team were previously unaware of the problems regarding communication from another scheme, we are already drawing up our plans for keeping customers and residents up to date, this includes regular website updates and newsletters. We responded to this individual with the following.

“Although your response is not related to the VMSL consultation, we understand your concerns in regards to the lack of communication between projects and members of the public. On the M6 J16-19 scheme, communication between ourselves and members of the public and honesty in the information of which we provide to the public is a high priority for us, we make regular
updates to the schemes website on progress to which you can subscribe to email alerts for. We are currently going through the detailed design stage of the project, however once the scheme goes into construction, any changes in scope and regular updates on the current and planned works will be provided on there.

We also have a distribution list that we will be using to keep people informed about the construction works when they commence which we will more than happily include you on at your request.

In relation to your concerns regarding signage, the scheme will be signed in accordance with official standards of roadside locations."

3.6 Environmental Impact

Within the consultation and through general correspondence we have received a lot of concerns raised over noise and air quality impacts of the scheme. Specifically being that noise levels from the M6 are already very high and concerns are that these will only increase with the scheme, one response read “the noise and fumes will move nearer to our house”

We recognise these concerns however through very extensive environmental assessments it has been concluded that there will be no significant effects on noise or air quality from this scheme. Where a property within a close proximity to the motorway will experience a significant increase in noise levels, mitigation will be provided.

An extract from our response to this customer is below.

“The environmental assessment considered the air quality and noise effects of the proposed scheme, by predicting the potential environmental changes in the opening year (2017), with and without the scheme. Scenarios in 2031 were also considered, to review the potential longer term impacts. The assessment was informed by detailed models using data from traffic modelling, and took into consideration the potential influence of the wind (assuming wind travelling from the road to the receptor) and moving traffic nearer to receptors, by use of the hard shoulder. These assessments and their findings are reported in detail, in Chapters 6 and 8 of the EAR. A summary of these chapters is presented in the attached extract, taken from the Non-Technical Summary document.”

3.7 Disruption during construction / efficiency scheme during construction

A large proportion of correspondence that Highways England receives is from regular users of the motorway network regarding disruption during construction. A regular comment Highways England receive is from users travelling through roadworks and not seeing anybody working, an example of this is from one of the responses we received to our consultation below.

“Why do you not use multiple gangs and work on multiple sections at the same time. Having travelled this section of the motorway there never seems to be more than 10 workmen at any onetime! Night or day.”

We responded with the following.
"We understand your concerns about long stretches of traffic management with often a little amount of workers visible. Roads are by nature long linear workplaces. To a road user travelling along coned off stretches of road it may appear that work is only taking place on a small section of the road, or at only one end. Unlike conventional widening schemes where you see large swathes of land being cleared, utilising large numbers of plant and operatives, construction of the Smart Motorway requires small numbers of operatives moving up and down the works in sequence, with one process having to be completed before another can start. This means a number of separate but interdependent activities have to be carried out. For road users travelling for a few seconds along coned-off stretches of road it may appear that work is only taking place on a small section of the road, or at only one end. However, as vehicles pass, workers may be moving steadily along the coned off lane. In addition a lot of work takes place off site, such as the fabrication and testing of overhead and verge mounted gantries, to minimise the disruption that would otherwise occur.

Reduced speed limits are put in place for the safety of all road users, and not solely to protect road workers. Even during breaks between works, roadwork’s sites can be dangerous places. The driving environment around roadworks is likely to be very different from normal. There may be changes to the normal standard of carriageway, such as lane restrictions or contra-flow running, as well as works vehicles entering or leaving the site. Additionally, excavations, works vehicles and equipment can pose additional risks, and the safety of road users is always our primary consideration.

With reference to working in gangs on multiple sections, we can confirm we will be working 24 hours a day with multiple gangs on the network maximising the work in the most efficient ways possible. We apologise for the inevitable delays that will be caused by the roadworks during the scheme’s construction, however we will be working to minimise disruption as much as possible."

3.8 Enforcement

Highways England as a whole often receives criticism for speed limit fines and the enforcement of speed restrictions, an example of this is a comment made in a response to our VMSL consultation.

“The introduction of various types of speed cameras, which are deemed necessary at times of congestion, are being left on at all times despite no temporary reduced limits being enforced or other safety issues. This makes the use of cameras look like a pure revenue raising device.”

Variable speed limits are designed to smooth traffic flows and make journeys more reliable by reducing the stop start effect of traffic during busy periods. Speed enforcement is part of the compliance regime necessary to delivery of these benefits.

Speed enforcement will continue to be part of the smart motorways concept and will be from either a gantry or a verge mounted position, despite contrary belief, Highways England do not enforce any speed limits on the motorway network, the police do, and will continue to enforce the speed limits. Highways England sees no revenue from this.

3.9 Other Feedback

Another comment raised was regarding the timing between the M6 junctions 10a–13 smart motorway scheme and the M6 junctions 16–19 smart motorway scheme. We understand that
customers who travel a large stretch of the M6 between the two schemes will be frustrated as when one scheme is finishing another is starting. We understand that the timing between the two is not ideal however both schemes are required to relieve the heavy congestion the M6 faces. Although frustration is inevitable, the junctions 10a to 13 scheme will be completed before the main works of the junctions 16-19 scheme commence.
4.0 Summary and recommendations

4.1 Summary

Every response that we received to the Variable Mandatory Speed Limit Consultation which provided contact details received a reply with the intent to address people's concerns regarding the scheme and to answer any queries, even those that were not directly related to VMSL. There are now no outstanding responders who have not been provided with a response.

We held this consultation as we believe it is important for us to know the public's views about the scheme and the introduction of VMSL as they will be the users of the scheme when it is complete. We also felt it necessary as it was an opportunity for individuals and organisations to raise any concerns to Highways England which required action. We are pleased with the responses we received from the consultation which gave a sense of both the positive and the negative aspects of the scheme.

Although not related to VMSL, from the concerns raised and concerns from other correspondence, we have undertaken further environmental assessments and review of mitigation, the conclusions from these assessments are ongoing.

To address other concerns and questions, we held two public exhibitions in late July 2015 and have also been attending a number of parish council meetings in the area of the scheme. We also have an open inbox for the scheme which is regularly monitored; all emails sent to this inbox from members of the public receive a response to help answer questions individuals may have.

4.2 Recommendation

From the results of the VMSL consultation, we can conclude that we will be progressing with the introduction of Variable Mandatory Speed Limits between junctions 16 and 19 of the M6 as a part of the smart motorway scheme.

Although no major changes have been made to the schemes design, we have adjusted a small section of the design to include a new barrier to protect the motorway users from headlight glare from an adjacent road to the motorway. A responder to the consultation voiced this concern and after we reviewed it, we concluded it could be considered a safety hazard with traffic travelling on the hardshoulder so we plan to mitigate against this.

We have also undertaken further environmental assessments around the Cranage area to address concerns of local residents regarding noise and pollution; this is to determine if any further mitigation is necessary and will be of any realistic benefit.

Despite the small change to the design and the further environmental assessments, the VMSL will be going ahead as planned as part of the scope for this scheme.

We do not feel that the concerns raised regarding the introduction of Variable Mandatory Speed Limits were substantive enough to prevent us from progressing with VMSL. Many of the concerns raised have already been previously considered in the design stage and information provided from other sections of the network already using VMSL prove that the introduction of the technology has not caused any significant incident and VMSL is considered safe and
effective allowing us to rule out the majority of concerns we received in this consultation. We also did not receive a large enough opposition to the introduction of VMSL to raise concerns as to why we should not be using VMSL.
Appendix A - Original Question Set

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Please tick one box from the list below that best describes you/ your company or organisation.

- [ ] Small to Medium Enterprise (up to 50 employees)
- [ ] Large Company
- [ ] Representative Organisation
- [ ] Trade Union
- [ ] Interest Group
- [ ] Local Government
- [ ] Central Government
- [ ] Police
- [ ] Member of the public
- [ ] Other (please describe): ___

If you are responding on behalf of an organisation or interest group, how many members do you have and how did you obtain the views of your members:

If you would like your response or personal details to be treated confidentially please explain why:

1. Do you consider that the proposal to introduce the Smart motorway scheme on the M6 between junctions 16 and 19 will lead to an
   [ ] Yes
   [ ] No
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