READING BOROUGH COUNCIL

LOCAL IMPACT REPORTS

HIGHWAYS ENGLAND'S RESPONSE

1. INTRODUCTION

1.1 Reading Borough Council accepts that the M4 requires extra capacity to accommodate the additional traffic that will be generated by the committed and allocated development along the M4 corridor. However it believes the provision of the extra capacity by the removal of the hard shoulder and conversion to a smart motorway to be inherently dangerous which will lead to more congestion and delays on the local road network to the detriment of residents and businesses within the Borough.

Highways England's Comment

1.1.1 Highways England does not agree that a smart motorway is "inherently dangerous". The Scheme will deliver the additional capacity required without compromising overall safety. The hazard assessment methodology used to assess the expected safety performance of the smart motorways concept uses evidence (i.e. monitoring data on performance) gathered from the M42 Pilot and more recent operational smart motorway schemes (e.g. hard shoulder running ("HSR")[1] schemes on the M6 around Birmingham and M62 J25-30). This evidence demonstrates that the use of the hard shoulder, as an additional lane, does not compromise overall safety.

1.1.2 The Hazard Log Report, Annex E of the Engineering and Design Report ("EDR") (Application Document Reference 7.4) outlines the hazard analysis work undertaken and concludes that, the All Lane Running design of the Scheme is likely to be no worse in terms of safety performance than the baseline[2]. Annex E concludes that the Scheme can expect "[a] reduction in risk for 13 of the 17 highest scoring existing motorway hazards (i.e. those with a risk score of E08/S08 and above), due to a controlled environment being provided through a

[1] HSR schemes open and close the hard shoulder to traffic during periods of congestion or congestion management.

[2] The safety baseline for the Scheme is the accident rate on the section of motorway before the installation of motorway incident detection and automatic signalling ("MIDAS") as described in section 2.3 of the Hazard Log Report (Annex E to the Engineering and Design Report (Application Document Reference 7.4))

combination of regularly spaced [variable] mandatory speed signals, speed enforcement, and full CCTV coverage."

1.1.3 In addition, the Hazard Log Report states that "calculations show that the total score for 'after' (i.e. once the Scheme is in operation) represents approximately a reduction of risk of 18% when compared with the safety baseline (no motorway incident detection or automatic signalling (MIDAS) queue protection)." It is noted that when comparing the predicted reduction in risk with the actual M4 J3-12 motorway with MIDAS (10% safety benefit compared to the actual baseline, which includes MIDAS) the Scheme would still expect to see a reduction in risk of approximately 8%.

1.1.4 Highways England does not agree that there will be more congestion or delays on the local road network as a result of the Scheme. Highways England uses a computer forecasting model for traffic modelling, which is used on all Highways England schemes. The traffic model takes account of details of future developments provided by the local planning authorities alongside national population and employment forecasts to assess the Scheme and its effects on the surrounding roads.

1.1.5 Although additional capacity is created on the mainline, the traffic modelling shows that the Scheme will result in a reduction in congestion on the M4 in both the opening year and 15 years later (see paragraphs 4.3.3 and 4.3.4 of the Engineering and Design Report, Application Document Reference 7.3).

1.1.6 The local roads potentially affected by the Scheme were identified and assessed in the Environmental Statement, Chapter 13, Effects on All Travellers (Application Document Reference 6.1). In particular, Tables 13.4 and 13.5 identify local roads in the vicinity of Junctions 10 and 11 of the M4. The results of the assessment on these roads is set out in Tables 13.27 to 13.29 and summarised in paragraphs 13.8.6 to 13.8.9, which conclude overall that the impact is neutral. Accordingly, it is considered that no additional works to improve the local feeder road network are required as part of the Scheme.

1.1.7 When the M4 is affected by major incidents, Highways England agrees that traffic is likely to increase on alternate routes and further, is aware of the impacts consequent congestion and delay can have on local residents and businesses. However, the provision of the Scheme offers the ability to maintain additional

capacity during incidents and to control traffic on the approach to incidents. This will allow smoother flows, which will reduce the incentive for traffic to divert onto the local highway network. Should there be a need to strategically divert traffic due to an incident on the M4, the signs and signals on other parts of the Highways England network will be able to provide appropriate information to motorists so that they are made aware of the incident and can change/re-route their journey as necessary in order to reach their destination. With these measures in place, the Scheme will minimise any inconvenience to residents and businesses in the Borough.

2. SITE AND SURROUNDINGS

2.1 The M4 motorway is part of the Strategic Highway Network (SHN) commencing at the junction of the A406 North Circular Road and A4 Great West Road within Chiswick, West London and ending at the junction with the A48 and A483 at Pont Abraham in West Wales. It links London with the Thames Valley, Bristol, Cardiff and Swansea and via the M5 at junction 20 with South West England.

2.2 The section around Reading is effectively a bypass of the town for the main movements travelling east-west or vice versa. Three junctions serve Reading, junction 10 Winnersh provides access to East Reading, Junction 11 Three Mile Cross provides access to south and central Reading and Junction 12 Theale provides access to West Reading. Traffic Volumes are high and the latest information from the Department of Transport Website shows that in 2014 the Average Annual Daily Traffic Flow (AADT) between junctions 12 and 11 was 105,723 and between junctions 11 and 10 was 117,587. The entire length of the M4 around Reading is three lanes in each direction with a continuous hard shoulder.

Highways England's Comment

2.2.1 Highways England agrees that the section of the M4 from junctions 12 to 10 runs adjacent to Reading and that it offers an attractive alternative to main movements travelling east-west and vice versa, but notes that this section of the M4 was not built to be a bypass for Reading..

2.2.2 Highways England agrees that the quoted Annual Average Daily Traffic flows of 105,723 between junctions 12 and 11 and 117,587 between junctions 11 and 10 for 2014 are as published on the Department for Transport's traffic count database (http://www.dft.gov.uk/traffic-counts/cp.php for Counter IDs 26014 and

46012). It is noted that these figures are consistent with the figures from 2013 that are detailed in the Engineering and Design Report (Application Document Reference 7.3) which were used in the traffic model development, and are repeated below:

EDR para 4.2.6 – Junction 12 to Junction 11 flow in 2013 as 109,800 vehicles per day (4% higher than 2014)

EDR para 4.2.10 – Junction 11 to Junction 10 flow in 2013 as 117,100 vehicles per day (0.5% lower than 2014)

2.3 *As the motorway continues towards London, traffic increases after each junction passed with the AADT between junctions 10 and 8/9 being 126,109, between junctions 8/9 and 7 being 136,613 and between junction 5 and 4B increasing to 146,271. While the motorway remains at 3 lanes in each direction except for a mile before the M25 where it is 4 lanes in each direction between junctions 8/9 and junction 4B, there is a fundamental difference between this section of motorway and that between junctions 12 and 8/9. This section of motorway was rapid widened in 1971 from 2 to 3 lanes just before the section of the M4 between junction 8/9 and junction 18 was open on the 21st December 1971. To widen the road quickly the hard shoulder was converted to a running lane and as a result on this section of the M4 there is no hard shoulder under or over any structure but a hard shoulder is provided between structures. This still allows the majority of the road to have a hard shoulder allowing vehicles in difficulties to stop off the live running lanes safely.*

Highways England's Comment

2.3.1 Highways England agrees that the traffic on the M4 generally increases as the motorway gets closer to London. The figures noted are generally consistent (+/- 4%) with the figures from 2013 that are detailed in the Engineering and Design Report (Application Document Reference 7.3) which were used in the development of the traffic model and are repeated below:

- EDR para 4.2.14 - J10 to 8/9 flow in 2013 as 124,300 vehicles per day (2% lower than 2014)
- EDR para 4.2.18 - J8/9 to 7 flow in 2013 as 132,400 vehicles per day (4% lower than 2014)
- EDR para 4.2.31 - J5 to 4b flow in 2013 as 152,800 vehicles per day (4% higher than 2014)

2.3.2 Highways England agrees with the description provided for the existing M4, but notes that a four lane section exists for approximately a mile either side of the junction with the M25 (Junction 4b).

2.4 The proposals now being promoted by Highway England is to remove the hard shoulder totally on the whole length of the M4 between junction 12 Theale and junction 3 Heston and convert this to a fourth running lane. Between junctions 8/9 and 4B which have already being widened new structures will be provided to incorporate the new lane. However unlike the previous widening of the motorway as described above, no hard shoulder will be provided along this full 32 mile section of motorway. Instead of this important safety provision, emergency laybys at 2 kilometre intervals will be provided.

2.5 Reading Borough Council is concerned that the increased capacity without a hard shoulder will increase the risks of serious collisions occurring adding to further congestion on this part of the SHN. When a collision or incident occurs without a hard shoulder, the proportion of running lanes closed will be greater than the existing situation and therefore worsening the congestion. As a result a higher volume of traffic will disperse off the motorway on to local roads which would bring gridlock to the town.

Highways England's Comment

2.5.1 Whilst short sections of hardshoulder will remain within junctions at J4b and J10 and on the west bound carriageway from J5 to 4b, Emergency Refuge Areas ("ERAs") will be provided at approximately 1.85km intervals as the refuge for broken down vehicles in emergency situations. This represents an improvement on both the spacing alleged by the Borough Council and the design standard applicable to smart motorways.

2.5.2 As explained in the response to paragraph 1.1 above, the Scheme will deliver the additional capacity required without compromising overall safety. The evidence provided demonstrates that the use of the hard shoulder as an additional lane does not compromise overall safety.

2.5.3 It is expected that the frequency of breakdowns in live lanes will be substantially less than the existing frequency of breakdowns on the hard shoulder. This is because a significant proportion of breakdowns will be able to stop in an ERA. Discretionary (illegal) stops will be significantly reduced, as road users are more likely to only stop in an genuine emergency. The M42 Pilot found that

breakdowns approximately halved as detailed in paragraph 9.4.4 of the Engineering and Design Report (Application Document Reference 7.3). Although the risk of live lane stoppages increases, Highways England will implement control measures to mitigate against this risk, such as the implementation of a controlled environment through Variable Mandatory Speed Limits and Closed Circuit Television (CCTV). Also, if there is a breakdown in a live lane, Highways England will be able to protect the breakdown through the setting of signs and signals and the use of the full CCTV coverage to manage an efficient response. Consequently, most of the current motorway risks are expected to reduce as a result of the implementation of all lane running (see paragraph 10.3.6 of the Engineering and Design Report), which more than compensates for the slight increase in risk for stopping in a live lane.

2.5.4 In the event of an incident, ERAs are located throughout the Scheme. The average spacing between ERAs will be 1.14 miles (1.85km) as detailed in section 2.2 of Annex E of the Engineering and Design Report (Application Document Reference 7.4), which is significantly less than the 2.5km maximum spacing outlined with the smart motorways all lane running (ALR) design standard (set out in Interim Advice Note ("IAN") 161/13). Evidence supporting IAN 161/13 – 'An Evaluation of the provision of Refuge Areas' supports the view that many road users will still be able to make it to a refuge area in an emergency, even were the distance to be increased. (see the Executive Summary - http://assets.highways.gov.uk/specialist-information/knowledge-compendium/2011-13-knowledge-programme/MM-ALR_Evaluation_of_the_Provision_of_Refuge_Areas.pdf,)

2.5.5 When a collision or incident does occur it should be noted that the hard shoulder (which is new lane one in an all lane running scheme) can be closed using the gantry signals, and three running lanes can still be maintained. During closures in other lanes, the available open lanes will be at least equal to, and generally one more, that the existing situation. For instance, if a vehicle breaks down wholly in the outside lane this would result in two running lanes remaining open on a 'normal' motorway, as the hard shoulder and the outside lane could not be used. In the same circumstances on the Scheme, three lanes would remain open to enable traffic to travel past the incident. This would reduce the likelihood of congestion occurring as there will be greater capacity in which to safely manage traffic past

the incident. The Scheme's ability to maintain additional capacity on the network during incidents reduces the incentive for traffic to divert onto the local highway network.

3. POLICY ISSUES

3.1 The National Policy Statement for National Networks (NN NPS) details the Department for Transport policies for developments to nationally significant infrastructure projects.

Highways England's Comment

3.1.1 The NN NPS sets out the Secretary of State for Transport's policies for nationally significant infrastructure projects ("NSIPs"), as the primary basis for decision making on development consent applications for national networks.

3.2 The NPS provides the parameters that the Secretary of State will assess when proposals for national significant infrastructure projects are submitted and the NPS follows the principles of the National Planning Policy Framework. The NPS details the requirements of when a scheme is needed and the implications of emissions, safety and technology of the proposals on the travelling public

Highways England's Comment

3.2.1 Section 104 of the Planning Act 2008 requires an application for development consent to be determined in accordance with the NN NPS.

3.2.2 The NN NPS notes at paragraph 1.17 that the overall strategic aims of the NPS and NPPF are consistent, although both documents have different roles in the planning decision making process. Highways England agrees that amongst other policy matters, the NN NPS provides guidance on the impacts of emissions, safety and technology of proposals on the travelling public and others.

3.3 The National Planning Policy Framework (NPPF) details the policy all developments within England should comply with and provides the requirements Local Authority's local plans need to follow.

Highways England's Comment

3.3.1 The NPPF states at paragraph 3 that:

This Framework does not contain specific policies for nationally significant infrastructure projects for which particular considerations apply. These are determined in accordance with the decision-making framework set out in the Planning Act 2008 and relevant national policy statements for major infrastructure, as well as any other matters that are considered both important and relevant (which may include the National Planning Policy Framework).

3.3.2 The NPPF is to be taken into account by local planning authorities within England in the preparation of local plans and in their decision taking on planning applications. It does not provide policy guidance for NSIPs, which are determined by the framework provided by the Planning Act 2008, the NN NPS and any other important and relevant matters (which may include the NPPF).

3.3.3 Indeed, the NN NPS notes at paragraph 1.18 that:

The NPPF is also likely to be an important and relevant consideration in decisions on nationally significant infrastructure projects, but only to the extent relevant to that project.

3.4 The Policies relating to transport are included within Paragraph 29 to 41 of the NPPF. The aim of the this national policy is to promote sustainable alternatives to the private car and ensuring that transport proposals are safe.

Highways England's Comment

3.4.1 The need case for national networks is summarised in paragraph 2.2 of the NN NPS, which constitutes the main policy applicable to the Scheme. This states that:

There is a critical need to improve the national networks to address road congestion and crowding on the railways to provide safe, expeditious and resilient networks that better support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth. Improvements may also be required to address the impact of the national networks on quality of life and environmental factors.

3.4.2 Paragraphs 29 to 41 of the NPPF are largely focussed on transport arrangements arising from development, rather than the development of transport infrastructure itself. Moreover, the relevant paragraphs provide no criteria in relation to

sustainable transport and make no specific reference to the promotion of "sustainable alternatives to the private car and ensuring that transport proposals are safe."

3.4.3 However, to the extent that paragraphs 29 to 41 of the NPPF are relevant to the Scheme, (as referred to within the Planning Statement (Application Document Reference 7.1)), paragraph 30 should be noted. Paragraph 30 states that in relation to sustainable transport, "e*ncouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion".* Of these, the latter, in particular, is supported by the Scheme.

3.4.4 The Planning Statement (Application Document Reference 7.1, paragraph 3.1.3) explains that the strategic case for providing additional capacity on the M4 within the Thames Valley was first examined in 'The Thames Valley Multi-Modal Study' (2003) ("TVMMS"). The purpose of the TVMMS was "*to identify the most effective means of addressing current and future transport-related problems in the Thames Valley*". The Planning Statement (paragraph 3.1.11) states that "*consideration was given to a range of potential multi-modal interventions (as set out in Government transport policy) to address the transport problems within the Thames Valley*". It also notes (paragraph 3.1.13) that the proposed "*strategy recognised that even with travel demand management and public transport enhancements in place, the overall magnitude of car-based demand would remain higher than now*" and that "*congestion will remain and, in specific areas, may intensify significantly, eroding some of the wider benefits delivered by a wider strategy."* Consequently, even if better transport links were provided, car-based demand on the M4 is such that improvements to the M4 to relieve congestion would still be required.

4. THE COUNCIL CONTENDS

4.1 The Council Contends that justification for the scheme and the safety of the scheme has not been fully assessed by Highways England, the applicant. Chapter 3 of the Environmental Statement details the Design Iterations and Alternatives considered. The options put forward within Table 3 are all iterations of a managed motorway scheme, either hard shoulder running at peak times or the scheme currently put forward of all lane running without a hard shoulder.

Highways England's Comment

4.1.1 Highways England disagrees with the Council's assertion. The safety of the Scheme has been subject to full assessment, and to the extent that justification for the Scheme is required over and above the NN NPS, this has been fully assessed by Highways England.

4.1.2 Highways England has addressed safety in paragraph 1.1 above (see the Hazard Log Report, Annex E of the Engineering and Design Report ("EDR") Application Document Reference 7.4), and the need case for the Scheme is highlighted in the response to paragraph 3.4 above (and see further paragraphs 3.1.11 and 3.1.13 of the Planning Statement (Application Document Reference 7.1).

4.1.3 With regard to optionality, the wider alternatives, such as different modes, were considered in the TVMMS, as set out at paragraph 3.4 above.

4.1.4 With regard to Chapter 3 of the ES, the NN NPS and wider Government policy provide that the need case set out in the NN NPS will be addressed by enhancements to the existing Strategic Road Network. Paragraph 2.23 of the NN NPS states that such enhancements will include: "implementing 'smart motorways' (also known as 'managed motorways') to increase capacity and improve performance". For this reason, the options described in Table 3 of Chapter 3 of the ES are entirely appropriate.

4.1.5 In 2008, Ruth Kelly, the Secretary of State for Transport, announced a £6 billion investment package to improve and make better use of England's motorways and other key roads which including investigation into the benefits of hard shoulder running ("HSR") on the M4 http://webarchive.nationalarchives.gov.uk/20081201222039/autoindustry.co.uk/press_releases/17-07-08). She also published the Command Paper 'Roads - Delivering Choice and Reliability' setting out more detail on the Government's plans to tackle congestion, both on strategic routes and in towns and cities. http://webarchive.nationalarchives.gov.uk/+/http:/www.dft.gov.uk/pgr/roads/introtoroads/roadcongestion/roadscommandpaper1.pdf.

4.1.6 In 2009, DfT published “Britain’s Transport Infrastructure Motorways and Major Trunk Roads” which noted in paragraph 20 “*For the sections where we had previously been considering motorway widening, we were able to compare this*

directly with HSR. This more detailed work suggests that in all cases where there was originally a proposed widening solution, HSR would provide a feasible alternative; and that on average it would save around 40% of capital costs, while for particular schemes savings could be almost 60%. HSR schemes provide the majority of benefits that widening would, generally at a lower cost to the environment. Combining this with the fact that capital costs are significantly lower means that the value for money of HSR is generally higher."

4.1.7 The operational options considered for the Scheme are detailed in Table 4, Paragraph 5.1.11 of the Engineering and Design Report (Application Document Reference 7.3). The options considered included dynamic use of the hard shoulder and also the ALR concept. Paragraph 5.1.11 notes that "*The four operational regime options and design concepts were identified (Table 4), developed and reviewed, by Highways England based on the knowledge gained from delivering Managed Motorway schemes and incorporating the latest emerging concepts.*" Paragraph 5.1.12 goes on to say that the "*design and cost assessments were undertaken in 2010 for each of the above design solutions, although work on developing engineering options was halted pending the completion of a traffic model and the development of a second generation Managed Motorway solution*".

4.1.8 These assessments undertaken concluded that the smart motorway solution proposed for the M4 is the most suitable option for this stretch of motorway. It allows Highways England to deliver the additional capacity that is required to tackle congestion by making best use of the available road space, and avoiding the problems experienced with the HSR design.

4.2 The applicant, within the alternatives considered, has not undertaken analysis of a rapid widened scheme, especially between junctions 12 and 8/9 where if the hard shoulder was converted to a running lane why a hard shoulder between structures could not be provided, especially given the area of verge between the edge of the carriageway is wide enough to incorporate such a facility. Also there has been no consideration of a scheme to fully widen the motorway to 4 lanes with a continuous hard shoulder throughout.

Highways England's Comment

4.2.1 As noted in the response to paragraph 4.1 above, paragraph 20 of "*Britain's Transport Infrastructure Motorways and Major Trunk Roads"* stated at

paragraph 20 *"For the sections where we had previously been considering motorway widening, we were able to compare this directly with HSR* [Hard Shoulder Running]. *This more detailed work suggests that in all cases where there was originally a proposed widening solution, HSR would provide a feasible alternative; and that on average it would save around 40% of capital costs, while for particular schemes savings could be almost 60%. HSR schemes provide the majority of benefits that widening would, generally at a lower cost to the environment. Combining this with the fact that capital costs are significantly lower means that the value for money of HSR is generally higher."*

4.2.2 Given the increased cost, land requirements and environmental impacts, road widening was not considered to be a suitable option by Highways England. The alternative suggestion of rapid widening would also result in additional cost and more significant environmental impact as it would require additional loss of vegetation, would use additional land outside the site boundary and/or increase the use of retaining structures. Although Highways England's assessment shows that although a few risks increase due to the loss of the hard shoulder, the mitigation included in the Scheme (such as Variable Mandatory Speed Limits, CCTV and ERAs) results in the Scheme being expected to reduced risk by 18% compared to the baseline and 8% compared to the existing M4.

4.3 Again within Table 3 or it seems within the large amount of information the applicant has submitted that an analysis of the provision of a motorway to 4 lanes with a continuous hard shoulder throughout has not also been considered for the section between junctions 8/9 and 4B. As this section, as already discussed, was rapid widened from 2 lanes to 3 lanes in 1971 there is no hard shoulder provision under or over any structure. Therefore the applicant is required to build new structures to facilitate their proposals of a 4 lane motorway without hard shoulders. Given the large cost of these proposals, the council would have expected that the applicant would have considered ensuring that all the new structures were provided with hard shoulders as the costs between providing a hard shoulder or not would be minimal when considered against the cost of the scheme as a whole. Again between structures the verge seems to be of sufficient width to incorporate a hard shoulder.

Highways England's Comment

4.3.1 The design of the new bridges is in accordance with current Highways England policy. The re-built structures are not designed to accommodate the future

addition of hard shoulders. To provide hard shoulders would require significant additional costs (estimated in excess of £5M) are not economically justifiable at present. Building larger structures would also require additional land take (estimated approximately 0.3 hectares) and may cause unnecessary environmental impact (eg additional vegetation clearance and visual intrusion), unnecessary disruption to the local road network and land owners, while impacting the travelling public by taking longer to build.

4.3.2 Whilst the verge between structures may appear to be of sufficient width for the provision of a hard shoulder, the construction of an additional approximately 300,000 square metres of hard shoulder pavement and the associated retaining walls and relocation of existing infrastructure would require a significant increase in land take, cost, construction time and vegetation clearance.

4.4 The applicant within appendix 5.2.34 of the planning statement justifies the requirement of the scheme by saying the current flows along the M4 between junctions 12 and junction 3 are 130,000 vehicles a day with a prediction this would increase to 160,000 vehicles a day. This is an interesting statement as the figures from the publically available data on the Department of Transport website (http://www.dft.gov.uk/traffic-counts/) show that the 130,000 vehicles a day figure is only reached east of junction 6 and in fact vehicles flows have been declining over the last 10 years and not increasing on this length of the M4. The data obtained from the website is included within Appendix A.

Highways England's Comment

4.4.1 The current traffic flow levels provided in paragraph 5.2.34 of the Planning Statement (Application Document Reference 7-1) (130,000 vehicles a day) was derived to provide a single representative order of magnitude of flow across the full 32 mile length of the Scheme. It represents an annual average weekday flow, weighted by distance travelled between junctions 3 and 12 derived from Highways England TRADS data for 2013 (the figures were compiled during 2014 when the complete data for that year was available). Average weekday flows are generally higher than those for the average day.

4.4.2 Based on the Department for Transport's approved forecasting methodology as provided in its Transport Analysis Guidance (TAG) and published data set, it is expected that the traffic would increase to an average 160,000 vehicles per day in the next 20 years.

4.4.3 Whether traffic flows are declining is addressed in the response to paragraph 4.5 below.

4.5 Around Reading AADT flows between junction 12 and junction 11 have declined from 122,224 vehicles a day in 2006 to 105,723 in 2014 and between junction 11 and junction 10, AADT flows have declined from 133,033 in 2007 to 117,587 in 2014. During this period there has been a considerable amount of development within Reading and the surrounding areas but vehicle flows have not increased, however during the same period travel on sustainable modes has increased. Results from Reading Borough Councils annual town centre cordon travel survey also shows that car use has been decreasing but shows that between 2008 and 2014, bus patronage increasing 10% from 45,785 daily trips to 50,411 daily trips and rail patronage increasing 8.5% from 38,360 daily trips to 41,637. The surveys also shows that between 2010 and 2014 cyclist trips in the town increasing 21% from 834 daily trips to 1016 daily trips and pedestrian trips increasing 8% from 7026 daily trips to 7,600 daily trips.

Highways England's Comment

4.5.1 Highways England has reviewed the data provided in the Reading Borough Council's Appendix and has summarised the average daily flows in the table below. As can be seen from the table, there is not a clear and consistent downward trend, either across time or between adjacent links. The flows highlighted green indicate where the traffic flow is higher in comparison to the previous year.

DfT Annual Average Daily Traffic Counts (http://www.dft.gov.uk/traffic-counts/cp.php) for sections J10-11 (counter 26014) and J11-12 (counter 46012).

Year	J10-11	J11-12
2000	108,410	116,122
2001	116,022	119,510
2002	108,780	123,834
2003	114,787	129,144
2004	115,729	121,614
2005	111,912	120,885
2006	122,224	125,859
2007	114,768	133,033
2008	111,167	126,788
2009	111,785	130,021
2010	109,193	117,017

2011	111,517	121,959
2012	110,736	126,292
2013	114,193	120,478
2014	105,723	117,587

4.5.2 It should be noted that the traffic flows have been affected by the global recession in recent years and therefore any short term comparison will not be indicative of the long term traffic growth trend (as cheaper forms of public transport are increasingly attractive during periods of recession).

4.5.3 The results from the Council's annual town centre cordon survey are noted in Appendix 1 to the Planning Statement (Application Document Reference 7-1) which summarises key policies from the Council's Local Transport Plan 3 for the period 2011 to 2026. In particular, one of the policy guidance statements for investing in new infrastructure states: "*To identify and pursue opportunities to upgrade radial, orbital, regional and national connections that will secure local benefits*." The Council contends in paragraph 2.2 above, that the M4 is effectively a bypass to Reading that both provides regional and national connections and relieves the central area of extraneous traffic. Highways England considers that to the extent that this is correct, the Scheme supports the achievement of the Council's local transport objectives.

4.6 With the considerable investment on the Great Western Main line with electrification and improved rolling stock it is likely these increases will be maintained and therefore the increases in vehicular traffic on the M4 may not be as high as indicated by the applicant.

Highways England's Comment

4.6.1 Rail developments including improvements to train capacity and frequency and other improvements to public transport are taken into account within the traffic model for the Scheme as detailed in paragraph 3.1.2 of the Traffic Forecasting Report (Appendix A). Included in these public transport improvements are: the planned electrification of the Great Western Main Line, initially to Didcot, Oxford and Newbury, and at a later stage through to Cardiff; the inter-city express programme, including extra seats on the Great Western Main Line; train lengthening between Reading and Gatwick; the Waterloo to Exeter hourly service; and Crossrail.

4.6.2 The transport model was run with the above rail improvements in the Do-Minimum (without Scheme) scenario. In an echo of the Thames Valley Multi Modal Study, Table 2 in Chapter 4 of the Engineering and Design Report ("EDR")(Application Document Reference 7.3) shows that even with public transport enhancements, significant levels of congestion can be expected along the M4 between junctions 3 and 12. Table 3 in the EDR provides a similar assessment in the Do-Something (with the Scheme) scenario and this shows a reduction in the level of congestion through to 2037, 15 years after opening of the Scheme.

4.6.3 Highways England is confident of the robustness of its approach to traffic forecasting. Highways England uses a computer forecasting model for traffic modelling (described in Chapter 2 of the Traffic Forecasting Report (Appendix 1 of the Highways England's Response to Relevant Representations provided for Deadline 1), an approach which is used on all Highways England major schemes and has been accepted by the Secretary of State. The traffic model is validated against actual flows and network performance (as detailed in section 8 of the Local Model Validation Report, (Appendix 7 of the Highways England's Response to Relevant Representations provided for Deadline 1), takes account of future developments identified by local planning authorities (see Appendices 16.1 and 16.2 of the Environmental Statement) and Highways England, alongside national population and employment forecasts to assess the Scheme and its effects on the surrounding roads. This modelling has demonstrated the benefits the Scheme will bring which are summarised in the Appraisal Summary Table (Appendix B of the Socio Economic Report, Application Document Reference 7.2).

4.7 The M4 is already over capacity for a dual three lane motorway with DfT Document TA 46/97 "Traffic Flow Ranges for use in Assessment of Rural Roads" stating that the capacity for a three lane motorway with hard shoulder being 67,000 AADT and for a four lane motorway with hard shoulder being 90,000 AADT. The document also states that for a 3 lane dual carriageway without a hard shoulder the capacity is reduced to 54,000 AADT. The documents also states that where flows are higher than these limits then alternative methods should be looked at. Either way the existing flows are considerable over these limits and the proposed widening will only be a sticking plaster solution.

Highways England's Comment

4.7.1 Highways England agrees that TA 46/97 provides guidance on traffic flows and capacities for assessment purposes. As such, the intention of the guidance is to provide guidance on the starting points in the design and economic assessment of new rural road links (paragraph 1.5) and does not necessarily reflect the ultimate capacity in practice. Paragraph 2.6 of TA 46/97 states that the ranges provided should not be used for the appraisal of on-line widening of existing motorways.

4.7.2 The Scheme will provide additional capacity that will reduce congestion together with modern technology to inform drivers and smooth traffic flows, creating an opportunity to provide traffic relief to the surrounding local roads over a wide area. A measure of the performance is the volume to capacity ratio (V/C ratio). A comparison of the V/C ratios with and without the Scheme is presented in Tables 2 and 3 of the Engineering and Design Report (Application Document Reference 7.3). The reduction in the V/C ratio between junctions 10 and 12 arising from the Scheme demonstrates the adequacy of the capacity to be provided by the Scheme and is indicative of reduced levels of congestion which will be of benefit to the Council.

4.8 Flows on the M4 westbound between junction 8/9 and 12 usually flow well even at peak times, although traffic will be flowing below the 70 mph speed limit. Delays only occur when an incident occurs on the road. Conversely eastbound flows between the same junctions again usually flow well even at peak times although congestion can occur on the approach to junction 10. This congestion is caused by queues on the slip road from the eastbound M4 on to the Bracknell bound carriageway of the A329 (M) backing up on to the main carriageway. However the applicant is currently constructing a multimillion pound improvement scheme as part of the pinch point programme to relieve these issues. In the morning peak traffic is slow after junction 10 but this is due to the capacity issues after junction 8/9 given the close proximity of several junctions and the considerable volume of traffic wishing to join. This causes traffic to back up along the eastbound carriageway of the motorway.

Highways England's Comment

4.8.1 Evidence of reduced speed is consistent with increased traffic and hence increased risk of flow breakdown (congestion). Further growth in traffic will increase the risk of congestion, as set out in paragraph 3.4.4 of the EDR, where a ratio of flow to capacity has been provided to indicate the increased congestion in

the opening and design years without the Scheme. As detailed in paragraph 3.4.5 of the EDR, the provision of the Scheme provides an improvement to the flow capacity in both opening and design years.

4.8.2 The additional capacity provided by the Scheme will allow more space to leave and join the M4 (as shown by the reduction in flow capacity noted in paragraph 3.4.5 of the EDR) at junctions 8, 9 and 10, which will assist in relieving the current congestion which has been noted to the east of junction 8/9.

4.9 If delays occur between junction 8/9 and junction 12 as stated it is usually down to an incident on the carriageway. In the majority of cases the offending incident is moved to the hard shoulder and lanes opened. Vehicle speeds are still low due to drivers rubber necking but vehicles are constantly moving albeit slowly. If an incident occurs where a lane as well as the hard shoulder is closed, traffic comes to a virtual standstill and drivers will leave the motorway and go on to the local road network. If this occurs during a peak period then the local network becomes severely congested and gridlock which results in lengthy delays for bus passengers and safety issues for pedestrians and cyclists, all modes which have seen a considerable increase over the recent years.

Highways England's Comment

4.9.1 As explained above in the response to paragraph 1.1 above, the Scheme will deliver the additional capacity required without compromising overall safety. The evidence provided demonstrates that the use of the hard shoulder as an additional lane does not compromise overall safety. The response to paragraph 1.1 also addresses the impact on local roads.

4.9.2 It should be noted that the Scheme introduces another running lane onto the motorway. As explained above in the response to paragraph 2.5. it is expected that the frequency of breakdowns in live lanes will be substantially less than the existing frequency of breakdowns on the hard shoulder.

4.9.3 When a collision or incident does occur and the vehicle moves to the left hand lane it should be noted that previous hard shoulder (the new lane one) can be closed using the gantry signals and therefore three lanes can still be maintained. Capacity would be as it is currently in the "Do Minimum" scenario. During closures in other lanes the available open lanes will be at least equal and generally increased by one or more that the existing situation (eg if a vehicle

breaks down wholly in the outside lane the Scheme could provide three open lanes compared to the current situation with only two). The Scheme's ability to maintain additional capacity during incidents and control traffic on the approach to incidents to better smooth flows should reduce the incentive for traffic to divert onto the local highway network.

4.9.4 When incidents occur, the extra controls provided through smart motorway features will be able to support the identification of vehicles in a live lane during peak times. The use of full CCTV coverage to find vehicles will allow faster identification of vehicles and allow emergency resources to be dispatched in a timely manner. The management of an incident including access by emergency vehicles is outlined in paragraphs 9.4.1 to 9.4.5 of the Engineering and Design Report (Application Document Reference 7.3). On the M4 motorway, vehicles involved in an incident are currently moved to the hard shoulder. Within a smart motorway all lane running environment, the vehicles are moved to an ERA or off the network where possible, thereby allowing traffic to use all available lanes. Should it not be possible to move the vehicle from the running lane, then appropriate signs and signals will be set to protect the vehicle and to allow other vehicles to move into another lane in order to pass the stationary vehicle.

4.9.5 Incidents will also be managed to minimise the impact on road users. Emergency lane(s) (which could be any lane of the motorway) can be created on the Scheme by managing traffic with signs and signals. This will provide efficient access for the emergency services and/or traffic officers. If an incident cannot be reached on the same carriageway, access can be provided from the opposite carriageway if necessary.

4.9.6 As detailed in paragraph 10.3.1 of the Engineering and Design Report, Highways England has developed bespoke procedures for dealing with incidents on smart motorways. These procedures are explained within the Regional Operating Agreement (ROA) which is being developed with the emergency services on the M4. The ROA does not form part of this Application. It is an agreement which been introduced to cover the management of the partnership between Emergency Services and the Highways England, and specifically, partnership working in relation to incident detection, incident verification, incident access and initial incident response. For road users, speed limits and lane availability will be indicated through the use of variable message signs (VMS), lane divert arrow

signals (to divert traffic) and Red 'X' signals (for lane closures) (see paragraph 10.3.16 of the Engineering and Design Report).

4.10 For example on October 13th and 14th 2014 a substantial pothole appeared within the M4 eastbound carriageway between junction 11 and 10 and the road was reduced to one lane. The delays were considerable and the level of traffic which diverted off the motorway was considerable and as a result Reading became gridlock which journeys of only a mile taking nearly an hour. What this showed is if the capacity of the M4 is reduced the neighbouring roads become congested extremely quickly.

Highways England's Comment

4.10.1 During major incidents when the M4 is closed, Highways England accepts that traffic is likely to increase on alternate routes. However, as detailed in the response to paragraph 4.91 above, the provision of the Scheme offers the ability to maintain additional capacity during incidents and to control traffic on the approach to incidents. This will allow smoother flows, which should reduce the incentive for traffic to divert onto the local highway network. Should there be a need to strategically divert traffic due to an incident on the M4, the signs and signals on other parts of the Highways England network will be able to provide appropriate information to motorists so that they are made aware of the incident and can change/re-route their journey as necessary in order to reach their destination.

4.11 It is the opinion of the Council that if the motorway is converted to a smart motorway, the general public will assume the capacity of the motorway has been increased significantly due to the provision of the extra lane, even though as stated in paragraph 4.7, the widened road still will be over capacity for a 4 lane motorway. With traffic flows greater than the existing flows on a road still under capacity and without a hard shoulder any incident which obstructs a lane will cause extensive problems on the neighbouring highway network. While there are emergency refuges if a vehicle sudden breaks down and stops the driver may not be able to reach an emergency refuge. In these cases the vehicle will be obstructing lane 1 and when recovery vehicles arrive it is likely in the interests of health and safety the adjacent lane will be also closed to traffic thus exacerbating the delays.

Highways England's Comment

4.11.1 As explained above in the response to paragraph 4.7, the capacity of the motorway will increase through the implementation of the Scheme and this will help manage the flow of traffic and therefore reduce the level of congestion on the M4 motorway.

4.11.2 For the reasons set out above in the response to paragraph 4.9, Highways England does not agree that the Scheme will exacerbate any delays caused by an incident. As noted throughout the responses above, signs and controls will be used to manage any incidents. The assertion from the Council that an adjacent lane will need to be closed to traffic is not supported by any evidence from any document in the Application - indeed, the Scheme should reduce the need to close any lane other than the lane in which an incident has occurred.

4.11.3 Some broken down vehicles will not be capable of 'limping' to a refuge area and will come to a stop in a live running lane. The extra controls provided through smart motorway features will mitigate this risk, by being able to support the identification of vehicles through the queue protection system, use of full CCTV coverage to find vehicles and the ability to set lane closures to protect vehicles. Evidence supporting IAN 161/13 – 'An Evaluation of the provision of refuge area' supports the view that many road users will still be able to make it to a refuge area in an emergency, even when the distance is increased. (Ref: http://assets.highways.gov.uk/specialist-information/knowledge-compendium/2011-13-knowledge-programme/MM-ALR_Evaluation_of_the_Provision_of_Refuge_Areas.pdf). This report refers to the Birmingham Box Phase 3 Managed Motorways scheme where there is a considerable gap in areas of refuge (at approximately 3km) over the Bromford Viaduct section of the scheme. The breakdown rate for the Bromford Viaduct section is particularly low (well below the National Average), indicating that when necessary, or when a location is deemed undesirable for motorists to stop (eg a viaduct), it is possible for vehicles to continue to a place perceived to be more safe to stop. The report notes the evidence from the Bromford Viaduct supports the view that many drivers are able to nurse a broken down vehicle up to a few Km distance before stopping (in carriageway locations where drivers perhaps perceive themselves to be vulnerable).

4.11.4 Where an incident cannot make it to a safe area of refuge there are operating procedures in place to manage the incident. The majority of vehicle's breaking down should be able to stop within lane one like they would have stopped on a hard shoulder when it was available. This means that under the Smart Motorway Scheme three running lanes will still be available to traffic as per the existing M4 motorway. The capacity will therefore not be reduced by the 50% referred to within the comment above. Chapter 8 of the Traffic Sign Manual explains that if an incident is in one lane e.g. Lane 1, it is only necessary to shut the adjacent lane e.g. Lane 2, if you cannot establish a 1.2m safety zone between the incident working area in Lane 1 and the traffic in Lane 2 (ref: Chapter 8 O7.2.51 - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/203670/traffic-signs-manual-chapter-08-part-02.pdf). The Traffic Officer operating guidance reflects the guidance within the Chapter 8 of Traffic Signs Manual. In the scenario described in paragraph 4.11, the closure of lanes will be the same whether a vehicle were to break down in the hard shoulder on the current M4 existing motorway or the vehicle were to break down in Lane 1 of a Smart Motorway ALR scheme.

4.12 The safety of All Lane Running motorways without a hard shoulder (ALR) is also a major concern for the Council. This new way of operating motorways is still new with the first sections of ALR on the M25 (junctions 23 to 27 and junctions 5 to 6) and M1 junctions 10 to 13 only became operational in the autumn of 2014. Since these openings there have been several fatal accidents as detailed within Appendix B including accidents which have been caused by vehicles which have stopped in a live running lane. As Highways England are unable to provide accident data of these new sections of ALR, then it is the opinion of the Council that no new sections of ALR should be considered until Stage 4 (12 months after opening) and 5 (36 months after opening) safety audits have been undertaken. These audits are a statutory requirement and will look at accidents trends before and after completion of the road.

Highways England's Comment

4.12.1 Operation and performance monitoring is currently underway on the first ALR scheme on the M25 J23-27 to measure actual safety performance and compare it with the safety levels before the introduction of ALR. This will give an indication of the actual safety level that can be achieved with ALR. The hazard log assessment and hazard assumptions for ALR schemes will be reviewed, and if

necessary revised, in line with the monitoring results. The one year monitoring report is likely to be published before the end of 2015. However, it should be noted that one year of reporting remains a very short timeframe upon which to assess the efficacy of the schemes, and on-going monitoring will be required and undertaken.

4.12.2 Once sufficient data is available from the operation of the initial M25 scheme, the experience of ALR on the M25 and other operational smart motorway schemes will help to inform the operational assessment for off peak times when the national speed limit is in force as well as during periods of congestion when variable speed limits are in operation. The results of the initial monitoring of the M25 ALR scheme will provide the Scheme with a better indication of how drivers behave and react within an ALR environment. The experience from other schemes will also inform incident management processes and procedures on the Scheme. For example, once the M25 ALR one year monitoring report is available the data collected (e.g. breakdown rates and casualty rates) and any operational feedback will be reviewed and may result in changes to, for example, operating procedures for accessing incidents on the motorway.

4.12.3 As shown in Appendix B of the Local Impact Report, there have been some incidents that have occurred on the ALR section of the M25. Once the one year monitoring report is available, the lessons from these incidents will be taken into account where appropriate in the hazard analysis for the Scheme. It is noted however, that one of the incidents shown in Appendix B happened on 12 December 2014. This incident involved four HGVs and it occurred where there is a hard shoulder available (i.e. it did not occur in a 4 lane ALR section with no hard shoulder). The cause of the incident was a vehicle entered the running lane after leaving the hard shoulder, which caused an HGV to swerve into another lane.

4.12.4 There is a smart motorway scheme which is operational on M1 J10-13. However, this scheme is a hard shoulder running ("HSR") scheme, with only a small section of ALR, which was introduced due to the mid-link location of a Motorway Service Area. It is considered that this scheme is not an appropriate comparison to the Scheme design as the M1 section was not designed to the ALR design standard (IAN 161/13) and therefore the technology and infrastructure provision is different to the Scheme. However, any lessons and experience from the M1

HSR scheme will be taken into account where appropriate, for example operational feedback, incidents and published monitoring data on driver behaviour on a smart motorway will be considered by Highways England.

4.13 *The Council also is concerned about the economic case for the works between junction 8/9 and junction 4B which involve rebuilding all the structures under and over the M4 (except the A308 flyover and bridges above junction 6). Given the costs involved it does seem a missed opportunity to undertake a conventional widening scheme with a continuous hard shoulder throughout. As already stated there seems to be sufficient width between the structures on the verge behind the existing hard shoulder to create a new one. As already stated the DfT' s own figures show that flows on the M4 have decreased over the last 10 years and not increased and the reason for congestion on the M4 between junctions 12 and 8/9 eastbound at peak times is mainly caused by the layout of the M4 between junctions 8/9 and 4B. It also believes that further detailed modelling should be undertaken with a conventional widening scheme between junctions 8/9 and 4B in place with the section between junction 12 and 8/9 remaining as a dual three lane motorway with hard shoulder.*

Highways England's Comment

4.13.1 The reasons why Highways England has not made an application for conventional widening, and the approach to modelling, are set out in the responses to paragraphs 4.1 and 4.2 above.

4.13.2 Traffic flows are addressed in the response to paragraph 4.5, and the congestion from forecast traffic growth is addressed in the response to paragraph 4.8 above.

4.13.3 Details of the Scheme costs and benefits are provided in the Appraisal Summary Table (AST) (Appendix B of the Socio Economic Report). The AST, together with supporting worksheets, was submitted to the Transport Appraisal and Strategic Modelling and Road Economics teams within the Department for Transport, who undertook a Value for Money (VfM) assessment. The metric used to define the VfM for the Scheme (or any other investment) is the ratio of the total net benefits divided by the total net costs, called the Benefit Cost Ratio or BCR. Taking account of all the costs (including replacement / modified structures) and benefits, the Scheme has been assessed as having a BCR of 2.2, which affords the Scheme a rating of high value for money.

5. SUMMARY AND CONCLUSION

5.1 The Council accepts that extra capacity is required on the M4 to accommodate the existing flows and likely flows travelling along the corridor to and from London.

5.2 However it contends that with traffic flows reducing over the last 10 years, the provision of all lane running on this section will only accommodate the existing flows and the provision of an extra lane may divert traffic on to the corridor in the belief that a greater capacity is provided than the route can actually accommodate.

Highways England's Comment

5.2.1 Traffic flows and the absence of evidence for consistent reductions in flows are addressed in the response to paragraph 4.5 above. The capacity of the Scheme, and the fact that the Scheme will not divert traffic are addressed in the responses to paragraphs 2.5, 4.9 and 4.10 above.

5.3 The removal of the hard shoulder to be used as a running lane on a heavily used section on motorway will be detrimental to highway safety especially given the spacing of the emergency laybys. When vehicles suffer sudden mechanical breakdown it is unlikely they will have sufficient velocity to reach a layby thus stopping in a live running lane, an extremely dangerous procedure.

5.4 During incidents where vehicles cannot reach a layby safely, a minimum of 2 lanes will be closed for safety reasons while the incident is resolved reducing the capacity of the motorway by 50%. This will cause severe delays on the motorway and traffic will divert on to local roads which in the case of Reading will result in gridlock.

Highways England's Comment

5.4.1 The issues raised are addressed in paragraph 4.11 above..

5.5 The scheme should be reconsidered with a continuous hard shoulder in the interests of safety.

Highways England's Comment

5.5.1 As detailed in paragraph 1.1 the Scheme is predicted to see a reduction in risk of 18% when compared with the safety baseline (no motorway incident detection and automatic signalling (MIDAS) queue protection) and 8% compared to the actual M4 J3-12 motorway with MIDAS (10% safety benefit compared to the

baseline). There is therefore no need to reconsider the Scheme “in the interests of safety” and consider a continuous hard shoulder option which would be more expensive and is likely to have a significant environmental impact.

Appendix A

DfT Traffic Figures

Appendix B

Road Traffic Collisions on Smart Motorways and All Lane Running Sections

Girls killed in M25 crash horror

by LAURA SMITH and HUGH MUIR, Evening Standard

Two young sisters were killed today when they were thrown from a car in a horrific crash which closed the M25.

The girls, thought to be aged six and 10, were hurled up to 20 feet from the car as it overturned at high speed and spun onto the embankment. A man in his mid-to-late-twenties who was in the back seat was also killed. He had to be cut from the wreckage.

The driver is being treated in hospital after the accident which happened on the clockwise section of the orbital motorway, between Potters Bar and Enfield, at about 3am.

Traffic police closed a nine-mile stretch of the clockwise carriageway of the M25 between junctions 23 and 25 in Hertfordshire.

They said the section was likely to be closed until at least mid-morning while investigations into the cause of the accident continued.

An ambulance service spokesman said: "The girls died instantly. It was a terrible sight. The car was completely wrecked. The driver was in complete shock. At this stage, it is unclear what caused the car to crash, but no other vehicle was involved."

After overturning, the car spun off the carriageway and up an embankment. It rolled over several times before coming to rest 20 feet up the embankment on the hard shoulder.

Roadside workers raised the alarm and helped police and fire officers in the rescue effort.

The ambulance spokesman for Bedfordshire ambulance service praised five workmen who raised the alarm and helped in the rescue effort.

"They had been on duty on major roadworks nearby and were there when the ambulance arrived," he said. "They were absolutely excellent.."

The M25 has been plagued by crashes throughout the summer. Three weeks ago an entire section was shut for a day after a car and lorry collided between junctions 16 and 17 at Gerrards Cross.

Read more: http://www.dailymail.co.uk/news/article-135500/Girls-killed-M25-crash-horror.html#ixzz3nP7WxOAc

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September 27th 2015

The Independent

M25 crash at Waltham Abbey involving four lorries leaves one dead and causes traffic chaos

Section of road will remain closed into the afternoon

- *Tuesday 9 December 2014 09:00 GMT*

A lorry crash on the M25 at 1.50am on 9 December, which has killed one person and injured three others after the vehicle crossed through the central reservation, closing the motorway in both directions between junctions 25 and 27.

Essex Police confirmed there had been one fatality following the incident near Waltham Abbey at 1.50am this morning. Three others have been taken to hospital after it was reported that "a number of people" had been trapped in their vehicles.

Four lorries and a Peugeot car were involved in the accident, police said, while some of the road required resurfacing after a lorry carrying cheese caught fire.

The Highways Agency said the motorway had been closed between junctions 23 and 27 clockwise and junctions 25 and 27 anti-clockwise, causing delays of at least one hour to drivers in the morning rush-hour.

It said the section of the ring-road would remain closed until the afternoon.

Images from CCTV traffic cameras at junction 26 showed a lorry with its front end pushing through the central reservation from the anti-clockwise to the clockwise side of the road. A large number of emergency vehicles remained on the scene.

A spokesperson for Essex Police said: "The M25 currently remains shut between junctions 25 and 27 while clean-up and repair work continue. Police have now released the scene to the Highways Agency."

Transport for London said the closures were having a knock-on effect on the A127, A10 and A12, where traffic remained "very slow".

M25 closed following collision involving multiple lorries

By Hertfordshire Mercury | Posted: March 04, 2015

Crash on M25. Photo by Paul Wood

THE M25 is shut near its junction with the M11 this afternoon (Wednesday) following a six-lorry pile-up.

The vehicles came together on the clockwise carriageway between junctions 25 (A10) and 26 (Waltham Abbey). The exit for the M11 is at junction 27.

Two lanes of the anti-clockwise carriageway have also had to be closed as a result of the incident.

Emergency services are at the scene of what is being described by the Highways Agency as a "serious accident".

Six fire and rescue engines have been sent to the crash. An elderly person who was trapped in a vehicle has been freed.

There are delays of up to an hour in the area. Normal traffic conditions are not expected to resume until 4.45pm at the earliest.

Diversions are in place along the M11, A10 and A406 North Circular.

Read more: http://www.hertsandessexobserver.co.uk/M25-closed-near-M11-junction-lorry-pile/story-26119361-detail/story.html#ixzz3nPIzVxOc Follow us: @HertsEssexObser on Twitter

Read more: http://www.hertfordshiremercury.co.uk/M25-closed-following-collision-involving-multiple/story-26119655-detail/story.html#ixzz3nPIdPxTa Follow us: @HertsMercury on Twitter

Woman dead in multi-vehicle crash on M1 in Bedfordshire

- *15 September 2014*
- *From the section Beds, Herts & Bucks*

A 36-year-old woman has died in a multi-vehicle crash on the M1 motorway in Bedfordshire.

Five cars and a motorbike collided travelling northbound between junction 11 for Luton and junction 12 for Flitwick just after 05:30, police said.

Officers said the victim was pronounced dead at the scene and "several others were seriously injured".

The road is closed and traffic cannot join it from junction 9 for Redbourn to junction 13 near Milton Keynes.

A Bedfordshire Police spokesman advised road users to find another route.

The M1 southbound remains open, but a diversion for northbound traffic has been set up.

Sgt Richard Cruse of the Bedfordshire, Cambridgeshire and Hertfordshire Collision Investigation Unit, said its enquiries at the scene would "take some time".

"The vehicles and debris, which is strewn across all four lanes, require us to keep the whole motorway closed for several hours," he said.

The Highways Agency said there were "significant delays" in the area with tailbacks to junction 8 for Hemel Hempstead and it expected the road to be shut "until this afternoon".

Three killed on M1 were West Ham fans travelling to game

Three of those killed in a weekend of mayhem on Britain's roads were travelling to West Ham game against West Brom

By Martin Evans, Crime Correspondent

2:36PM GMT 15 Feb 2015

Three men who died in a horror smash on the M1 motorway were West Ham United fans on their way to watch the team's FA Cup game against West Brom, it has been reported.

The three died when a coach ploughed into their car which was parked on the hard shoulder of the M1 in Bedfordshire, early on Saturday morning.

Police initially suggested the men may have been returning to their homes in Bedfordshire following a night out in the capital, but West Ham fans took to social media with messages of condolence after claiming the victims were travelling football supporters.

West Ham United were playing West Brom in the lunchtime kick off at the West Midlands team's ground.

Former West Ham, Rio Ferdinand wrote on Twitter: "Thoughts are with the families of the 3 West Ham fans who lost their lives travelling to WBA yesterday."

The men had been travelling in an Audi A3 which had stopped at the side of the motorway at around 6.46am. A fourth man in the car survived the crash but was taken to hospital with life threatening injuries.

None of the passengers on the double decker bus, which was travelling from Kent, were seriously hurt in the crash, which left the M1 closed between junction 12 and 13 for many hours.

The men were among at least eight people to die in car smashes in what was a bloody weekend on the roads.

One person was killed in a crash on the M40 in Oxfordshire in a pile up involving dozens of cars.

Two women were killed on Saturday night in Norfolk in a crash on the A11 and two more died in a crash in Staffordshire on the A511.