

	<p>REGULATION 29: RESPONSE TO PREVENT FUTURE DEATHS</p> <p>THIS RESPONSE IS BEING SENT TO:</p> <p>The Assistant Coroner for Milton Keynes, Sean Cummings of 1 Saxon Gate East, Milton Keynes MK9 3EJ.</p>
1	<p>National Highways</p> <p>I am [REDACTED], Head of the Vehicle Restraint Systems Team at National Highways Limited of Viabes 3, Jays Close, Basingstoke RG22 4BS.</p>
2	<p>CORONER'S MATTERS OF CONCERN</p> <p>The MATTERS OF CONCERN are as follows: –</p> <p>The hazard posed by the design of the P1 terminal was known by National Highways and it was due for replacement at the site of the collision in 2022. It presented and continues to present a significant risk and was not replaced for financial reasons. There is a gradual roll out programme across National Highways to replace P1 terminals with a safer bifurcated system but I consider the implications of the financial limitations represents an ongoing safety concern for vehicles approaching them on designated roads.</p>
3	<p>BACKGROUND</p> <p>This note has been prepared in response to a Regulation 28 report, received from the Milton Keynes Coroner's Service by National Highways in response to a fatal road traffic collision on 6th July 2024. The incident occurred on the southbound carriageway of the A5, shortly after the end of the on slip road from the A509 (Portway roundabout) onto the A5, and at the pedestrian footbridge linking Milton Keynes Central station to Kirkham Close.</p> <p>Nature of the current barrier provision at the material location</p> <p>The current barrier provision at the incident location is unchanged from the time of the incident; prior to the pedestrian footbridge bridge linking Milton Keynes Central station to Kirkham Close, there are two lengths of barrier in the central reserve. The length of barrier adjacent to the northbound side of the central reserve is a double sided Tensioned Corrugated Beam type of barrier. The length of barrier adjacent to the southbound carriageway of the central reserve is a single sided Open Box Beam barrier. Approximately 34 m prior to the central bridge pier supporting the pedestrian footbridge, the length of single sided Open Box Beam barrier rises gradually from carriageway level to full barrier beam height, in an arrangement known as a "ramped end (P1) terminal".</p> <p>This type of terminal design is no longer in use for new installations on the approach end of barriers located on roads with a speed limit of 50mph or more.</p> <p>In the material incident, Mr Nardelli struck the ramped end terminal, causing his vehicle to launch. The vehicle subsequently impacted the central bridge pier supporting the pedestrian footbridge.</p>

	<p>I have been informed by colleagues within National Highways that the barrier system at the material location and impacted in the material incident, was installed in 1984.</p> <p>Given the installation date of the barrier system at the material location, Technical Memorandum H9/73 (published in 1973) was the standard in place for barrier systems at the time. Clause 19 of Technical Memorandum H9/73 stated that “<i>Exposed leading ends of safety fences shall be ramped down to an anchorage at ground level.</i>” Clause 2 of Appendix C of Technical Memorandum H9/73 which details the layout requirements for Open Box Beam barrier system stated that “<i>Fig 6 illustrates how the fence may be used at wide bridge piers on central reserves where there is insufficient space for deflection of a tensioned beam safety fence. Also how the barrier may be connected by means of a transition piece to the single sided tensioned beam safety fence. This avoids doubling of the tensioning beam at and in advance of [the pier,] and the provision of anchorages on each side of the pier.</i>”</p> <p>The barrier layout at the material location met the requirements of Technical Memorandum H9/73.</p> <p>Following an informal site visit carried out by National Highways colleagues on 12th February 2025, I have been made aware that on the A5 between the junction with the A508 (Old Stratford) and Kelly’s Kitchen there are currently three ramped end terminals in the central reserve of the southbound carriageway and three ramped end terminals in the central reserve of the northbound carriageway.</p> <p>A review of the current barrier provision at this locality with reference to more current requirements</p> <p>The aforementioned Technical Memorandum H9/73 was superseded by TD 19/06 in 2006. Since the publication of TD19/06, it has been a requirement for barriers to split (“bifurcate”) around structural supports (such as a bridge pier) in the central reserve. Hence, as and when the barrier in the central reserve at the material location were to be renewed/replaced, the ramped end terminal would not be replaced with a different terminal, it would be replaced completely, with a bifurcated length of barrier.</p> <p>These requirements have since been included in National Highways’ current requirements for Vehicle Restraint Systems (VRS) which are contained within the published document CD 377 – <i>Requirements for Road Restraint Systems</i>.</p> <p>When a new standard is produced, it only applies to new works/designs and therefore TD 19/06 and CD 377 would not be applied retrospectively to existing barrier systems, nor would it be a proportionate and effective use of public resources to do so.</p> <p>The delivery of schemes</p> <p>The regional Service Delivery team have a remit for Safety Inspections of the barrier which are undertaken every two years to identify potential safety issues. If there are immediate safety concerns these can be addressed through routine maintenance budgets or through the Minor Capital Interventions renewal programme. Short term mitigation can also be utilised such as temporary lower speed limits until a repair or renewal is implemented.</p> <p>In terms of renewal of barrier where no specific safety concerns are identified, the regional Planning and Development team undertake a network wide review across the region and prioritise schemes</p>
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for development in the forward programme. It can take 2 to 3 years to develop a scheme from feasibility and preliminary design, and detailed design, through to construction. Schemes are prioritised for delivery based on available condition data.

The central reserve safety barrier renewal on the material section of the A5 was identified for renewal in 2020 mainly based on its age. It is over 25 years old and so nearing its expected end of serviceable life. However visual condition inspections are also done to assess the urgency or priority of the timing of a renewal intervention and due to its condition, this section was not considered to be urgent.

A design was developed ready for implementation in around 2022 to remove the P1 terminal at the material location and replace it with a bifurcation as set out above, but lack of resources and road space constraints meant the renewal could not be delivered at the end of the financial year. The renewal was only considered to be delivered at that time due to budget availability in the East region and was considered against other renewal opportunities elsewhere in the region.

The condition of the barrier system was deemed adequate and able to perform its intended function for some time longer, so the renewal remained in the forward programme.

Central Government awards funding to National Highways in multi-year settlements (usually 5-year cycles). National Highways then determines how much of the funding is assigned to different assets in each region. The indicative next allocation of funding did not assign a high level of funding to the East region for the renewal of VRS. The funding that is available will be targeted to the poorest condition assets across the East region. The condition of the VRS asset on the material section of the A5 is expected to warrant an intervention in the next 5 years so is currently earmarked for renewal in that period. However, if its condition proves not to be deteriorating as much as expected and other sections of barrier in the East region are a higher priority, then a decision may have to be made to reassign funding to those other VRS renewals.

National Highways currently has interim funding for the year 2025/26 but is still waiting confirmation from Central Government of the next multi-year funding settlement and so are unable to commit to our programme beyond the 2025/26 period.

DETAILS OF ACTION TAKEN SINCE THE INQUEST

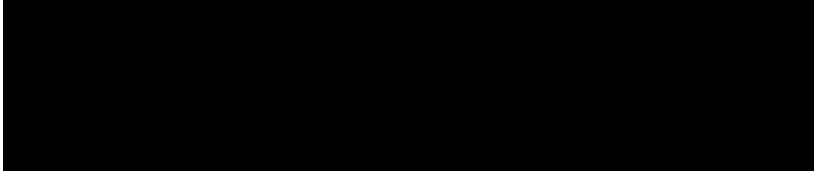

A review of similar incidents on the National Highways Strategic Road Network (SRN).

A review of fatal incidents on the whole of the SRN in England has been undertaken to identify any other incidents where a vehicle has impacted a ramped end terminal in the central reserve and subsequently impacted a bridge pier. This search has been limited to fatal incidents as there is typically insufficient detail available for serious, slight and damage-only incidents in order to make a detailed assessment of the circumstances of the incident.

The review of fatal incidents has identified no similar incidents between 2014 and 2022 on the whole of the SRN in England.

As a result, it is concluded that such incidents are uncommon on the SRN.

	<p>A review of incidents at this locality</p> <p>A review of incidents on the A5 in this locality (between the A509 (Portway roundabout) and the H6 Child's Way overbridge) has identified three slight injury and one serious injury incident within the five year period from 1 October 2019 to 30 September 2023. Within these four incidents, there is no other reported impacts with this section of barrier.</p> <p>Formal survey work</p> <p>A formal survey of the central reserve barrier provision and condition along this length of the A5 (between the junction with the A508 (Old Stratford) and Kelly's Kitchen) has recently been added to the survey programme, and survey work is due to start in mid-August 2025.</p>						
4	<p>TIMETABLE FOR PLANNED ACTION</p> <table border="1"> <tr> <th><u>Date</u></th><th><u>Action</u></th></tr> <tr> <td>Mid-August 2025</td><td>Survey work of the central reserve barrier provision to start</td></tr> <tr> <td>Late 2025</td><td>Subject to overall network need, barrier condition along the route and current funding levels, design brief to be started to remove the six ramped end terminals within the central reserve along this length of the A5 (between the junction with the A508 (Old Stratford) and Kelly's Kitchen) and replace them with bifurcations compliant with CD 377.</td></tr> </table>	<u>Date</u>	<u>Action</u>	Mid-August 2025	Survey work of the central reserve barrier provision to start	Late 2025	Subject to overall network need, barrier condition along the route and current funding levels, design brief to be started to remove the six ramped end terminals within the central reserve along this length of the A5 (between the junction with the A508 (Old Stratford) and Kelly's Kitchen) and replace them with bifurcations compliant with CD 377.
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5	<p>SAFETY OF ROAD USERS</p> <p>The safety of our road users is an imperative for our business, and safety is a core value of our organisation. We are working hard to make our entire network safer.</p> <p>We consider that the action we have taken to date has confirmed that the barrier arrangement at the material location met the requirements of the standards in place at the time of construction, but that they are not compliant with our current requirements.</p> <p>However, when a new standard is produced, it only applies to new works/designs and therefore current requirements would not be applied retrospectively to existing barrier systems, nor would it be a proportionate and effective use of public resources to do so.</p> <p>All improvements to the SRN are to be progressed in a considered and controlled fashion so that the consequences of changes to the SRN are fully understood and any linked safety risks are eliminated or reduced as far as possible. Furthermore, works to the SRN are required to demonstrate value for money, in accordance with the Highways England: Licence (April 2015), and our duty to manage public funds.</p> <p>That being said, we are shortly to commence formal survey work of the barrier provision and condition in the central reserve of the A5 (between the junction with the A508 (Old Stratford) and Kelly's Kitchen) and, subject to overall network need, barrier condition along the route and current</p>						

	funding levels, we will commence works to progress the replacement of the six existing ramped end terminals with bifurcations compliant with our current requirements (in CD 377).
6	Signed and dated   <i>11th August 2025</i>