B3108 Winsley Hill / BFB 3 76.5 Limpley Stoke UB

Notes from Meeting on 25/06/2026 at County Hall, Bythesea Road, Trowbridge

Atkins | Network Rail | Wiltshire Highways

Notes by TM, Network Rail and reviewed by CP, Wiltshire Council. Circulated on 09/07/2026

Attendance

At County Hall:

MS Mark Stansby, Principal Highways Engineer, Wiltshire Council

CP Chris Pearce, Principal Structures Engineer, Wiltshire Council

VM Vaheesan Maheswaran, Lead Portfolio Manager, Network Rail

ND Nathan Drew, Highways Apprentice, Wiltshire Council

TM Tom Mynors, Structures Route Engineer, Network Rail

SC Simon Cope, Principal Engineer, Atkins

On Teams:

AP Anthea Pierre, Asset Engineer (Structures), Network Rail

KP Keith Palmer, Highways Engineer, Atkins

1) History of bridge strike at this location
   a) TM outlined the history (see slides 3-7)
   b) There was some discussion noting that not all bridge strikes reported by the public are actual strikes, some are reports of existing damage
   c) It was advised that the worst damage is occurring when vehicles approach the bridge from the Winsley Hill direction, as they strike the edge girder from the inside and either tear the bottom flange and/or bend the main girder web.

2) Summary of works completed to date
   a) TM summarised the previous work undertaken by Network Rail and the 2 stages this was done in to coordinate with the A36 National Highways work (this

prevented a road closure at Limpley Stoke being permitted as early as Network Rail requested).

b) See slide 10

3) Risk reduction measures – signage, interactive signage etc.
   a) See slide 12
   b) Regarding metric signage and the previous emails showing that some advance signs state 4.2m, Wiltshire Council acknowledged the error.
   c) Wiltshire Council have produced designs for new, slightly larger signage, with consistent metric and imperial dimensions of 4.1m and 13'9".
   d) The highway layout drawings showing this new signage and where it would be positioned were shown as paper copies by ND in the meeting.
   e) MS confirmed that the typical lead time on signage installation is approximately 2 months. There might be an opportunity to install sooner if road closures (where required) can be permitted sooner.
   f) Mobile interactive signs were discussed.
   g) MS advised they had spoken to 1 supplier so far and the installation timescale would be dictated by the provision of a power source.
   h) Wiltshire Council confirmed that they have no objection to Network Rail installing additional temporary Variable Message Signs. Network Rail intend that these would be in place until the permanent signs with power (funded by Network Rail and installed by contractors working on behalf of Wiltshire Council) are in place.
   i) "LOW BRIDGE" painted wording on the bridge itself was discussed. This exists on some other Network Rail bridges, but it was noted that this is usually provided where the mandatory signage is hidden by vegetation or obscured by junction layouts etc. (for example, approaching around a bend or with traffic lights and other distractions present). The consensus was that:
      i) there is no visibility issue on the approach to Limpley Stoke from Winsley Hill, the road vertical layout makes the bridge very obvious to drivers.
      ii) The approach speed from the West (A36 side) is significantly reduced due to road layout and so vehicles approach slowly, to give way as per the highway signage.

      Therefore it is not proposed to paint "LOW BRIDGE" on either side of Limpley Stoke bridge at this time.

   j) It was suggested by CP that a more helpful message than "LOW BRIDGE" on any variable message signs could be something more specific such as "RESTRICTED HEADROOM FAR END" to convey to drivers that the initial opening size is larger than the true headroom constraint.

k) It was noted that understanding more about the pattern of bridge strikes would be useful for both parties as there is limited information regarding bridge strikes. As background, Wiltshire Council advised:
   i) There have been some changes in highway restrictions by a neighbouring local authority which may have changed the routing of HGV traffic in the area.
   ii) Useful data to gather includes: load, destination, haulier, height of vehicle in cab, registration details, contact details.

l) Use of cameras to record information about strikes (and potentially to act as a deterrent). TM advised that there are operations / route crime and security teams looking at this option and NR would continue to explore.

m) Wiltshire Council stated they have mobile enforcement vehicles but these focus on parking offences and are not suited to this type of task.

4) Headroom – Measured headroom, available headroom and signed headroom

a) SC (Atkins) presented the slide pack titled "LimpleyStokeHeadroom_202606"

Slide numbers in this section refer to the Atkins pack not the Network Rail slide pack

b) Page 4 notes that the highway alignment is not a continuous radius or a constant vertical grade, but is a series of connected gradients.

c) Page 6 notes that 4 of the standard methods use a 25m chord to determine the signed headroom. There is one standard which is superseded and uses a 25m chord.

d) CP advised that Wiltshire Council consider the vertical unadjusted clearance is 4297mm.

e) TM confirmed that this dimension is a close match to the Network Rail surveyed values as part of the design work undertaken in 2024, this shows a vertical unadjusted clearance of 4300mm (drawing 18458805-MOS-WST-BFB-DRG-EST-100020, Low Mileage (North) Abutment Elevation, dimension under MGE2 WEST GIRDER). This is only 3mm different to the Wiltshire Council value so site measurements are not a source of error.

f) SC advised that the standards variously refer to headroom as 'vertical' or 'perpendicular'. Perpendicular headroom was stated to be more logical for the analysis of vehicles and this results in a ~10mm reduction to 4289mm (see slide 14).

g) SC summarised the signed headroom which would be derived from the 25m and 16m chord approach as:

	Traffic Signs Manual – Graphical Approach	CD366 – Determine Radius and then apply correction
25m Chord	3.8	3.7
16m Chord	3.9	4.0

(see slide 14)

h) Network Rail (TM) observed that all these values are below the 4.1m currently signed on the bridge itself.

i) SC presented an analysis based on actual vehicles (this was requested by Wiltshire Council in email correspondence prior to the meeting) (see slides 15-16)

j) The detailed findings are shown in a table on page 16. Key findings are:
   i) When measured above the carriageway, vehicles which have an actual height of 4.1m and a rigid length of 9.309m have a theoretical clearance at 5mph (no allowance for suspension bounce) of between 45mm to 51mm.
   ii) The vehicle type for these vehicles includes “Articulated HGV (40ft container)”. This appears to match the type of vehicle which on two occasions (10th October 2024 and 23rd March 2026) has caused serious structural damage to the West edge girder (referred to on drawings as MGE2).
   iii) The swept path analysis undertaken by Atkins shows that vehicles of this height will strike MGE2 in the same way that those 2 bridge strikes actually occurred.
   iv) As described by Atkins, the absolute clearance of 45mm to 51mm does not include any of the tolerance (e.g. vehicle suspension) and rounding down requirements that are explicit in
      (1) Traffic Signs Manual Chapter 4 – Warning Signs
      (2) Prevention of Bridge Strikes on Bridges over Highways
   v) It was discussed what additional tolerance / safety margin would be the minimum given by Traffic Signs Manual Chapter 4. This would be between 80-179mm based on rounding rules, so the minimum safety margin is 80mm.
   vi) These safety factors are based on a 25m chord, so for the actual vehicles shown in the table, using a 25m chord headroom to calculate the signage will give a larger safety margin than 80-179mm.

k) TM (Network Rail) stated that Network Rail does not consider it is necessary to reduce to the values calculate by the 25m chord, if Wiltshire Council consider vehicles of that length will not actually use this road. Reducing to the 25m chord values may be too onerous.

l) TM (Network Rail) suggested that the Traffic Signs Manual calculated clearance for a 16m chord of 3.9m (shown on Atkins slide 13) would appear to be an appropriate choice based on the information presented. This would not exclude

all of the vehicles in Atkins' real vehicle analysis (see slide 16) and would still permit 3 types of goods vehicles that were in the analysis (heights of 3.645, 3.745, 3.870) to pass under the bridge.

m) CP (Wiltshire Council) in response noted that this bridge has not always been struck and they think something has changed in the wider network.
n) AP (Network Rail) confirmed that Network Rail's records on bridge strike go back to 2008 and between 2008 and 2021 there were very few bridge strikes.
o) CP stated that Wiltshire Council are concerned about the impact on the wider highway network if they reduce the signed headroom, and would want to analyse where these vehicles are likely to be displaced to.
p) CP noted that they are not receiving a large number of general calls around HGV movements on highways in the local area around Limpley Stoke (which may imply that the total HGV volumes are not that high).
q) TM re-stated that although there may not have historically been a problem, there is a problem now for railway passengers and running a reliable train service. The bridge is likely to have always been signed at a headroom higher than the available headroom if calculated in line with Traffic Signs Manual Chapter 4. The bridge soffit has not been lowered by any of the works Network Rail have undertaken and the road surface level does not appear to have increased.

5) Collision Protection Beam proposal (CPB)
   a) Network Rail briefly presented that they have a design for Collision Protection Beams to be installed on both faces of the bridge. This is currently being priced by a contractor; Network Rail expect to know in 4 weeks' time whether this is affordable this financial year. Budget has been set aside provisionally. A formal road closure application will follow once the contractor has developed a programme.
   b) It was noted that CPBs will affect the headroom as, in order to be effective and installed in line with the guidance, the minimum height of the Winsley Hill side CPB will be 4120mm above the carriageway crown. Due to the vertical profile of the road, this will result in an available headroom of <4120mm for all vehicles as the front of the fixed length goes beyond the CPB.
   c) The technical approval process for CPBs was not known by any of the attendees and will be followed up after the meeting (for example, do Wiltshire Highways need to approve the design or the proposal to install CPBs).

Next steps – Actions

1) Simon Cope (Atkins) and Tom Mynors (Network Rail) to share slides

2) Chris Pearce / Mark Stansby - Wiltshire will review internally with their team leaders / senior managers *"to understand the wider impacts of reducing the signed headroom under the bridge before speaking with our HoS"*
3) Chris Pearce to advise on Monday 29/06/2026 what the turn around time is on this review. Network Rail propose that Wiltshire Council advise whether the signed headroom will be reduced to a value below 4.1m, and what Wiltshire Council's proposed signed headroom is (in metric and imperial), by 10/07/2026 (2 weeks after the meeting). Please confirm if this is possible based on your required internal reviews. *Post-meeting note: Chris Pearce confirmed on 03/07/2026 that they plan to provide a formal response by Friday 10/07/2026*.
4) Tom Mynors - Technical approval process for CPBs to be confirmed – TM to review with SC.
5) Tom Mynors – Network Rail to contact temporary Variable Message Sign providers to see if an over height detection VMS is available.
6) Mark Stansby / Nathan Drew – signage improvements are on hold until the headroom discussions are concluded.