

**Issues to be addressed on The Busway between St Ives and Cambridge**

Updated on 18 June 2010

Problem to be fixed	Action	Pledged date for completion	Status
<p><b>River Great Ouse Viaduct</b> Issue: rain water leaking through unsealed expansion joint onto viaduct steel</p>	<p>1) BAM Nuttall has committed that all the technical and design work for the new joint, they have pledged to install, will be completed by 30 April.</p>	<p>30 April 2010</p>	<p>Design submitted by BAM Nuttall before 30 April. County Council comments on design also returned before 30 April as BAM Nuttall's design had not taken into account some of the suggestions the Council made in December last year. BAM Nuttall have agreed to make their designers available to discuss the outcomes of the review. Following a meeting of designers BAM Nuttall resubmitted some revised designs for the car park on 28 May 2010.</p>
	<p>2) Once design work is complete it will take a number of weeks to order the materials and complete the required work.</p>		

<p><b>St Ives Park &amp; Ride car park</b> Issue: rain water is ponding on the surface of the car park as is has been built with less than the specified gradient</p>	<p>1) BAM Nutall has committed to formally submit a revised design for the car park that will address the issue of water ponding on the car park.</p>	<p>19/05/2010</p> <p>Revised design maximising the use of existing drainage committed by BAM Nuttall for 28 May</p>	<p>Some of the information was submitted on Monday 10 May for comment by the County Council. Since the information on 10 May arrived BAM Nuttall was asked to consider a simpler solution which would be quicker to build and cost less. A meeting was held on 18 May where BAM Nuttall agreed with CCC that a design maximising the use of the existing drainage would be submitted. BAM Nuttall committed to submit the design by Friday 28 May.</p>
	<p>2) BAM Nuttall has committed to implement the accepted design for the car park as soon as possible. The design is subject to acceptance by CCC designers. The contractor expects this work to take a number of weeks to complete.</p>		
<p><b>Maintenance Track</b> Issue: water ponding on stretches of the track</p>	<p>1) BAM Nuttall provide preliminary work by their designers on raising the track to the correct level, including how the flood storage volume might be addressed.</p>	<p>19 April 2010</p>	<p>Completed.</p>

	<p>2) BAM Nuttall and Cambridgeshire County Council (CCC) will continue to work together to find the best solution that will give the best result while not impacting on flooding.</p>		<p>To raise the track with minimal costs, and not exceed the flood storage capacity in the area, CCC has told BAM Nuttall it will consider designs where the track is slightly narrower at the points where flooding has occurred.</p>
	<p>3) The process of finding the best solution, that must be agreed by the Environment Agency, is likely to be a long process. However, physical work to fix this problem can be carried out with buses running.</p>		<p>BAM Nuttall and CCC met with the Environment Agency on 18 May to begin discussing flooding implications of raising the track.</p>
	<p>4) At the end of April, BAM Nuttall believed the design work would be completed by the end of July</p>	<p>31 July 2010</p>	<p>BAM Nuttall frustratingly chose to wait three weeks to agree notes from the meeting with the Environment Agency before asking their designers to progress work further. This delay means the Council believes it is now impossible for BAM Nuttall to hit their deadline on completing the design work.</p>
	<p>5) BAM Nuttall have committed to implement the agreed solution once it has been established.</p>		

<p><b>Foundations</b> Issue: CCC require confirmation that BAM Nuttall's foundations on a short section of the track are appropriate and settlement will not affect the ride quality</p>	<p>1) BAM Nuttall committed to undertake the necessary soil testing for calculations to be carried at the Chief Executive's meeting on 30 March.</p>		
	<p>2) Following a meeting of respective experts on 15 April, BAM Nuttall pledged to finalise proposals on soil testing by 23 April.</p>	<p>23 April 2010</p>	<p>BAM Nuttall sent finalised proposals for borehole testing to CCC on 30 April. At a meeting on the same day locations for borehole testing were also agreed.</p>
	<p>3) BAM Nuttall has informed CCC they will begin drilling bore holes during the week commencing 17 May.</p>	<p>Week commencing 17 May</p>	<p>On Monday 17 May BAM Nuttall informed CCC that the sub contractor would be starting borehole testing on Monday 24 May. On 24 May the boreholes began to be drilled.</p>
	<p>4) BAM Nuttall have committed to carry out analysis of the soil samples to find out how much the soils shrink during a dry period.</p>		<p>Boreholes were completed by Friday 28 May. BAM Nuttall has said a further three weeks are needed for the soil samples to be analysed.</p>
	<p>5) Once the soils have been analysed BAM Nuttall have pledged to carry out the calculations to show how the track could be affected by soil shrinking during a hot summer</p>	<p>Mid-June</p>	<p>Due to the boreholes beginning behind BAM Nuttall's schedule, the results of the borehole tests will not be available until the end of June, and then calculations will need to be carried out.</p>

	<p>6) Once the technical work is complete, CCC and BAM Nuttall will need to agree how to best address the outcome. Until all the results are in CCC will not know if any work is needed.</p>		
<p><b>Gaps between guideway beams</b> Issue: CCC requires confirmation the beams are spaced correctly to allow the beams to expand during a hot summer, without damage to the guideway</p>	<p>1) The outcome of this work is closely linked with the technical work being carried out on the foundations as the combined effect of thermal expansion and settlement needs to be considered.</p>		
	<p>2) BAM Nuttall has agreed to complete the technical work needed to assess the guideway beam gaps.</p>	<p>05 May 2010</p>	<p>BAM Nuttall submitted information to CCC on 5 May 2010. The information submitted on 5 May showed the gaps do not allow for the maximum expected thermal expansion of beams during a very hot summer. This does not necessarily mean any work will be needed to adjust the gaps, but further calculations are required by the contractor.</p>

	<p>3) Once the technical work was completed BAM Nuttall committed to supply the final calculations that are required by 14 May.</p>	14 May 2010	<p>CCC were not provided with the final calculations needed to show if any work is needed on 14 May. As of 18 June the calculations had not been provided by BAM Nuttall.</p>
	<p>4) Once the technical work, and final calculations, are complete the best way to address any problem identified will be determined.</p>		
<p><b>Rubber Tyres</b> Issue: Designer's Risk Assessment and Fire Safety Report required to show the use of shredded tyres is appropriate</p>	<p>1) A Risk Assessment that incorporates the actions from the Fire Safety Report was submitted by BAM Nuttall on 20 April.</p>	20 April 2010	Completed.
	<p>2) CCC review the tyre Risk Assessment.</p>		<p>CCC reviewed information and requested the risk of fire in the very small space between the two sets of tracks to be quantified. As of 18 June BAM Nuttall had not provided the information CCC requires.</p>
	<p>3) It is anticipated that a check will be carried out by BAM Nuttall to make sure the soil layer on top of the rubber tyres is in accordance with the design.</p>		

	<p>4) If checks show the layer of soil is not as deep as it needs to be in some places, BAM Nuttall will carry out the work to top this up.</p>		
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