

CAMBRIDGESHIRE GUIDED BUSWAY

To: Cabinet

Date: 7th September 2010

From: Acting Executive Director: Environment Services

Electoral divisions: The Hemingfords and Fenstanton, St Ives, Papworth and Swavesey, Willingham, Cottenham, Histon and Impington, Waterbeach, East Chesterton, King's Hedges, Petersfield, Trumpington, Gamlingay.

Forward Plan ref: Not applicable **Key decision:** No

Purpose: This report sets down for consideration by Cabinet the progress being made towards opening of the Cambridgeshire Guided Busway.

Recommendation: Cabinet is asked to:

1. note that the Contractor continues to make slow progress towards rectifying the defects which would allow the Council to accept sectional completion of the busway between Cambridge and St Ives,
2. note that the Contractor is continuing to progress the southern section of the Busway in accordance with their current programme, which shows the Busway complete in December.
3. note that given 1 and 2 above, it is likely that sectional completion will not be possible before the entire project is completed.

<i>Officer contact:</i>		<i>Member contact:</i>	
Name:	Bob Menzies	Name:	Councillor Roy Pegram
Post:	Head of Delivery Cambridgeshire Guided Busway	Portfolio:	Growth and Infrastructure and Strategic Planning
Email:	Bob.menzies@cambridgeshire.gov.uk	Email:	roy.peggram@cambridgeshire.gov.uk
Tel:	01223 717866	Tel:	699173

1 BACKGROUND

- 1.1 The Cambridgeshire Guided Busway Contract was let in July 2006. While there are two sections of busway, the contract was let on the basis of the entire project being completed at the same time, in February 2009.
- 1.2 When it became apparent in 2008 that construction was running late, it was agreed between the Council and the contractor Bam Nuttall (BNL) that the contractor would work towards completing the northern section first. As this was not envisaged in the Contract it requires a separate sectional completion agreement. Unfortunately sectional completion was not achieved as envisaged late in 2009 as the contractor would not commit to rectifying six key areas of work which had been notified as defects under the Contract. These issues were set out in detail to Cabinet on 16th March 2010.
- 1.3 At the subsequent meeting on 27th April, Cabinet was advised that BNL had provided a timetable, including pledged dates, for progressing the six issues.
- 1.4 These six issues are:
 - 1 River Great Ouse Viaduct Expansion Joints;
 - 2 St Ives Park and Ride (P&R) surface ponding;
 - 3 Maintenance track flooding;
 - 4 Guideway shallow foundations;
 - 5 Thermal expansion gaps between the guideway beams;
 - 6 Rubber tyre infill between the guideway beams.
- 1.5 Some of these items require physical works to rectify them and for others, simply calculations and confirmation from the designers that the infrastructure will perform as planned and not present long-term maintenance liabilities. Either way, these issues must be addressed if the busway is to be launched successfully.
- 1.6 If BNL do not address the defects before completion of the whole project then the normal defect provisions in the contract will come into effect at completion; that is that the contractor will have four weeks to rectify those defects and if they do not do so, the Council can step in and carry out the work and recharge the cost to the contractor.
- 1.7 Progress against the timetable to rectify these issues was reported to the Cabinet meetings on 25th May, 15th June, and 5th July. At each of these meetings, members expressed their concern at the slow progress achieved up to that point.

- 1.8 At the meeting on 5th July it was resolved to: *Request that officers now focused their principal efforts on completion of the whole contract rather than the interim stage of sectional completion given the continued failure of Bam Nuttall to rectify the notified defects.*
- 1.9 Nonetheless, this report sets down the current position with the defects as Cabinet also agreed that should the defects be rectified, the Council would still be willing to consider sectional completion.

2 PROGRESS

- 2.1 The progress since the meeting on 5th July is set out below with reference to the work that is required as noted in the report to the meeting of 27th April. Members will be advised of the latest position on each of these at the meeting.

River Great Ouse

- 2.2 The River Great Ouse viaduct has been built without expansion joints between the bridge deck and the abutments, contrary to normal practice and the design BNL submitted, and subsequently had approved. As a result, water from the bridge deck, which in the winter would contain de-icing salt, falls directly onto the main steel beams of the bridge and the bearings, with the potential to significantly reduce the life of both.
- 2.3 Although there have been a number of meetings and exchanges of correspondence on this matter, BNL have made no real progress on resolving the issue. BNL's position is that it was impractical to comply with all the specification requirements in the contract. This is not the view of the Council's experts and this has been made clear to BNL.
- 2.4 It should be noted that the Contract makes provision for the possibility of conflicts between different parts of the specification. If this occurs the contractor is required to seek clarification from the Project Manager and not unilaterally change their design without informing the Project Manager of the change, as is the case at the River Great Ouse Viaduct.
- 2.5 In their statement on 21st April 2010 BNL said: *BAM Nuttall will conclude and agree design work to address the Council's concerns over the expansion joint at the River Great Ouse Viaduct by 30th April 2010. The required joint will then be ordered and installed by BAM Nuttall as soon as possible thereafter.* A satisfactory design by BNL is now four months late.

St Ives P&R

- 2.6 As reported to Cabinet on 27th April BNL committed to complete the design work on the car park by 19th May, some three months ago, and

to implement the resulting solution to address the ponding on the site as soon as possible thereafter.

- 2.7 Subsequently BNL have put forward a number of over elaborate designs together with an inflated cost estimate for the work. A number of meetings have been held at which Council officers have indicated that some relaxations of the design parameters would be considered in order to avoid unnecessary expense. Following the meetings a further design was to be provided by the end of July by BNL. This in fact arrived on 12th August and at the time of writing is being reviewed.
- 2.8 However BNL appear to have now changed their position on rectifying this defect. An email accompanying the drawings on 12th August states *'these drawings are simply being provided to show a solution that CCC/Atkins might wish to adopt'*. Whereas BNL's public statement of 21st April was: *'BAM Nuttall will conclude and agree design work to address the Council's concerns over ponding of water at the St Ives park and ride site by 19th May 2010. BAM Nuttall will then undertake the remedial works as soon as possible thereafter'*. This discrepancy has been brought to Bam Nuttall's attention.

Maintenance Track

- 2.9 Following a meeting held with the Environment Agency (EA) on 18th May, BNL's designers have been developing proposals for further discussion with the EA at a site meeting. This meeting was originally expected to take place in early July. A meeting was in fact held with the EA on 17th August, a month later than BNL pledged, with a site meeting on 24th August. The EA are taking a helpful and pragmatic approach to helping BNL find solutions to put the maintenance track as near as possible to the correct levels, however, there is still work to be done to find solutions to all of the problem areas that will satisfy the requirements of both the EA and the Contract.
- 2.10 BNL's commitment in April was to have design work concluded and agreement with the EA by the end of July, and that is now a month overdue.

Foundations

- 2.11 BNL carried out additional soil testing boreholes in June to establish the susceptibility of the soils under the foundations to differential settlement in dry weather, combined with surveys of critical areas. A formal report setting out this information was due to be provided by BNL by 13th August, which may draw a line under the problem, but at the time of writing the report has not been received.

Beam expansion gaps

- 2.12 The foundation and beam gap issues are linked. If BAM Nuttall can demonstrate the likelihood of differential settlement is low for the

foundations then a lower minimum gap width between beams will be possible. There will also be fewer gaps that are too narrow to allow for the full effect of thermal expansion of the guideway beams in hot weather.

- 2.13 It has been repeatedly suggested to BNL that they demonstrate through calculations that the beams and other components will withstand the resulting compression of beams pressing against each other. To date these calculations have not been provided.
- 2.14 In BNL's statement in April they committed to concluding all calculations to address the Council's concerns by 5th May, three months ago.

Rubber Tyres

- 2.15 The Council needs to be satisfied that BNL have properly considered the potential fire risk of the shredded rubber tyres, which they have used to fill the space between the guideway tracks instead of gravel.
- 2.16 BNL's April statement committed them to concluding the risk assessment by 23rd April, more than 4 months ago. BNL have submitted a Designer's Risk Assessment, which has been through a number of iterations. The currently outstanding issues are the risk of damage to the communications ducts where they are close to the surface, and the potential for smoke to disrupt rail services. The latter risk only applies to the southern section and BNL are now infilling this section with gravel.

3 Southern Section and Other Works

- 3.1 Southern section works continue to progress in line with, or in some cases ahead of BNL's latest programme. BNL's programme shows civils works complete on 19th November with inspections and testing complete on 17th December. These dates have not changed for some months although the critical path leading to these dates changes every month.
- 3.2 The gabion retaining wall in Trumpington cutting has been completed well ahead of BNL's schedule. This activity was previously on the critical path.
- 3.3 Work is progressing at the Trumpington stop with one platform completed. The single track guideway has been laid almost to Shelford Road and should be proceeding through Trumpington cutting by the date of the meeting when other works in the cutting are completed.
- 3.4 The final approvals have been received from National Grid Gas for a protection slab under the cycleway where it connects to Trumpington Park and Ride. This activity is on the critical path of BAM Nuttall's most recent programme.

- 3.5 BAM Nuttall have provided a commissioning plan for the southern section, which should ensure an orderly inspection and certification process, however, they have so far not provided certificates in accordance with this programme. This has been taken up with them and, while assurances have been given that this will be addressed, arrangements are now being made to begin our own inspections and compiling the appropriate snagging list.
- 3.6 Arrangements are being made to complete the surfacing of the cycleway from Milton Road to Longstanton and various other minor additional works in this section before completion if possible, using the Council's existing framework contract. While the site remains in the control of BNL they will need to approve the health and safety documentation. Progressing with the works prior to completion is therefore dependent on this being achieved.

4 Summary

- 4.1 It can be seen from the information above that other than the issue of the shallow foundations progress on resolving the defects continues to be at best limited.
- 4.2 In line with the Cabinet resolution of 5th July the project team are focusing on completion of the whole project, rather than the interim stage of sectional completion due to BNL's continued failure to rectify notified defects. The team will also continue to remind BNL of their obligations under the contract to rectify defects and of earlier commitments made to address these issues.

5 IMPLICATIONS

Resources and Performance

- 5.1 Finance and risk management – the report sets out the latest progress towards resolving the issues that have prevented the opening of the northern section of the busway. The busway is a high profile project and whilst the Council is keen to secure beneficial use as soon as possible, this should not be at any cost, particularly in terms of future maintenance liabilities.

Statutory Requirements and Partnership Working

- 5.2 There are no significant implications for any of the headings within this category.

Climate Change

- 5.3 The busway will provide a good alternative to use of the car for travel into Cambridge, St Ives, Huntingdon and other villages along the route. When operational, it is expected to significantly increase the bus

patronage in this corridor and as such assist in our objectives to reduce the emission of greenhouse gasses from vehicles.

- 5.4 The busway should also have a high quality track alongside that is available for pedestrians and cyclists and this again will increase its environmental benefits. This is already being used unofficially and usage will increase when the scheme is formally open.

Access and Inclusion

- 5.6 The busway will provide good public transport and cycle/foot links between St Ives, the intervening villages and Cambridge. This will open up travel opportunities by increasing the quality of bus services in those communities and benefit particularly those without use of a car.

Engagement and Consultation

- 5.7 There are no significant implications for any of the headings within this category.

Source Documents	Location
Agenda and Minutes, Cabinet 1/3/2005, 7/2/06, 13/6/06, 11/7/06, 16/10/07, 16/12/08, 29/9/09, 16/3/10, 27/4/10, 25/5/10, 15/6/10 Cambridgeshire Guided Busway Order	CGB Team Office, Old Police House, Shire Hall, Cambridge