

## **Examination into the Joint Core Strategy for Broadland, Norwich and South Norfolk. Matters for Examination - Outstanding Matters from Week Two**

Response by: Barratt Strategic

1. This note has been provided in response to a question raised by the Inspectors in Document RF61.

*"7. Barrett Strategic to state the current proposals for rail infrastructure serving Rackheath, when it is planned to be completed, and how confident we can be that it will be completed within that timescale."*

2. The provision of rail services to Rackheath was originally set out in the Rackheath Eco-Community Concept Statement submitted to DCLG in 2009. Further information was provided in our Supplementary Statement submitted prior to the Examination in October 2010, specifically, paras 11 and 28-50.

3. Our current proposals are as follows:

- (a) to construct a freight siding immediately north and west of Salhouse station to serve the planned biomass generating plant. In addition this could serve an enlarged Rackheath Business Park area, which will include a small intermodal facility. This would allow a wide range of freight to be handled by rail, including the importation of building materials during the construction period. No multi-user rail facility is available in East Anglia east of Ely or north of Ipswich so this it could make an important contribution to modal shift.
- (b) to build a new station at Rackheath, one kilometre south of Salhouse station. The new station would be well located with respect to both existing development and proposed new development (the Eco-Community). It would be relatively low cost as an existing level crossing provides for wheeled access between platforms and no overbridge would be required. This, together, with the proposed new station to serve the Broadland Business Park development to the south, could be expected to generate a sufficient level of passenger business to justify doubling service frequency to half hourly from Norwich as far as North Walsham and thereby create an attractive rail service. In broad terms, combined with an upgraded bus service, we expect this to raise public transport mode share for vehicle trips to 25% from the Rackheath area, of which rail would capture 8%. We have conducted pathing (timetabling) and platform occupancy exercises and believe this service upgrade could be achieved with no other rail infrastructure works.
- (c) to subsequently move to a 4 times per hour passenger service through Rackheath by introducing (in addition) a heavy rail 'shuttle' service between Norwich and the new freight siding, which would act as a

'turnback' facility. The trains would call at Broadland, Rackheath and Salhouse (assuming that station remains open). We believe that because of platform occupancy constraints this would require some modification of track layout within Norwich Thorpe station (as set out in para 38 of our Supplementary Statement).

4. Consideration is also being given to the introduction of tram-trains, following a suggestion by National Express. Tram trains are light rail vehicles, with lower energy and operating costs, which can also operate on the heavy rail network. They are already used in several locations in Germany and in the Netherlands. The Department for Transport is funding trials of tram trains between Rotherham and Sheffield which will operate over the heavy rail lines and the Sheffield tram system. As noted below, the specific characteristics of the Norwich to Rackheath route, make it particularly suitable for the use of this technology.
5. The introduction of tram trains would mean that the following could be undertaken instead of steps (b) and (c) above.
  - (d) instead of upgrading the service to twice hourly to North Walsham, to make a connection from the main line immediately adjacent to the site of the proposed Rackheath station to a new track that follows the proposed street network of the Eco-Community running broadly along the route of the old runway, parallel to the main line as far as the Rackheath business park. A reserved route for the track would be established from inception to minimise costs. The freight siding would act as the northern terminus of the tram-train route;
  - (e) to make use of platform 6 of Norwich Thorpe station as the Norwich (southern) terminus of a tram train route and to operate the associated track as a siding; this will mean both ends of the tram-train route are 'beyond' the existing Network Rail signalling regime, putting control of vehicles in the hands of the driver as is normal in a 'tram' system. Trams would then be signalled on and off Network Rail's network as would be a freight train.
  - (f) using a fleet of 3 tram-trains, to be maintained at Crown Point depot, to operate a 4 times per hour shuttle service, also calling at the proposed new Broadland station. This approach would also obviate the need to construct a new Rackheath heavy rail station as there could be a tram-train halt within 100 metres. This would offer a cost saving. All halts used by the tram train could be 'low level' platforms designed for easy access for prams and wheelchairs etc. Stations within the new development would be at intervals of around 400 metres.
6. Steps (d) – (f) would exploit particular advantages offered by the Rackheath location. It is linked to the centre of Norwich by a heavy rail link with considerable spare capacity, sufficient to cope with 4 extra trains per hour per direction. There is a large maintenance depot available (Crown Point) along its route. There is a short platform available at Norwich which is no

longer used that can be employed for tram trains. The fact that there are no other platforms along the proposed route may, in fact, make it possible to use 'off the shelf' existing diesel or bio-diesel powered tram trains procured from the Continent because the constraint on loading gauge that UK platform edges generally impose would not exist. Finally, it would at some later point be possible to extend the tram-train route beyond Norwich Thorpe station to follow the route street trams used to follow in Norwich before World War II. Such a combination of positive conditions may not exist anywhere else in the UK.

7. To summarise, it follows that the rail infrastructure involved in developing the Rackheath scheme will involve:
  - (i) a new freight siding north of Salhouse and either
  - (ii) a new heavy rail station at Rackheath and, subsequently and at a second stage, some track work in Norwich Thorpe station or
  - (iii) a new tram line through the proposed new development at Rackheath plus the modification of a redundant platform at Norwich Thorpe station, together with the procurement of 3 tram trains.
8. The timescales involved in making modifications to rail infrastructure would be relatively short. The new freight siding would be straightforward to construct on, effectively, 'virgin' land - procedures for agreeing the physical connections would take around eighteen months.
9. A new station at Rackheath could be operational in about two and a half years, inclusive of agreeing track possessions, designing and building the station, assuming a prefabricated design.
10. The physical modification of the redundant platform at Norwich Thorpe station could be completed in under a year. The track next to it is already connected to the network.
11. The Concept Statement for the Eco-Community proposed that a new rail station at Rackheath would be made available as part of the first phase of the development following implementation of the Exemplar phase. There do not appear, therefore, to be any significant barriers to delivering a heavy rail strategy within this programme. Should a decision be taken to adopt a tram train option, it would also be possible to meet this programme.
12. The strategy proposed has been presented to National Express (the local rail service provider) and to Network Rail which has agreed that it should enter an Access Protection Agreement with Barratt Developments in order to take the project forward.