Introduction

This document is one of 22 Annexes to the main HS2 Cycleway Project Report. It sets out the preferred routes which were identified in workshops, refined in subsequent field surveys and then discussed further with local authorities.

The detailed mapping shows the different traffic free and on road sections, and includes brief notes and photographs describing points of particular interest along the route.

Background to the First Stage

In January 2014, the Department for Transport (DfT) commissioned consultants, Royal HaskoningDHV, to carry out a Feasibility Study into creating a series of world class cycling routes from London to Birmingham, Manchester and Leeds. The project considers a study area that is generally three miles either side of the planned HS2 Rail alignment, and was conceived as an opportunity to deliver excellent local facilities for communities along the whole length of the proposed railway.

It is envisaged that each section of cycle route would serve as an important facility at a local level, connecting where people live to where they want to go to: and by linking the individual sections together, a continuous long distance could be created that would provide an attractive leisure and tourism facility as well.

As far as possible the project was also to enhance pedestrian routes, and in some cases bridleways too, all within the context of creating continuous, safe and attractive routes which would encourage the public to cycle for local trips, for leisure and as tourists.

The report of this first phase of work was completed in December 2014. It included a total of 18 detailed annexes, of which this is one, each of which described a section of the preliminary route options in some detail. The routes themselves were derived from discussions with local authorities and other interested bodies, backed up by cycling the routes as far as this was possible.

In order to avoid too much repetition in the text and explanation of details, a selection of photographs of appropriate arrangements and details from both the UK and the Netherlands is included here to indicate the sort of quality of route the HS2 Cycleway aspires to realise.
**Second Stage**

The second stage of the study was carried out during 2015. It comprised meeting with the local Highway Authorities and with the principal institutional landowners, such as Network Rail and the Canal & River Trust. Following on from these meetings, and any necessary further fieldwork, the route proposals were revised, and a series of “workbooks” prepared covering the details of how the proposed cycleway would interact with Network Rail, HS2 and others. In addition 4 further Annexes were prepared covering links to the Peak District, and HS3 cycle routes from Manchester to Liverpool, Sheffield and Leeds.

This route to Knutsford takes in Tatton Park as this significant and wonderful property will make for a memorable passage on the way to and from Manchester as well as a popular destination in its own right.

**Frequently Asked Questions**

**How will it be funded?**
As the project is still in the feasibility stage, no specific funding commitments have been made; part of this study has been to determine the likely costs. However, should the project be commissioned, it is envisaged that it would be funded by DfT separately to current funding packages.

**How will it be delivered, practically and politically?**
Part of this feasibility study has been to identify potential delivery models. We have recommended that the local Highway Authority takes the lead, backed up by a central support team to handle commonly difficult matters such as land assembly.

**How will it affect current funding streams?**
It is not expected that this project would affect current funding streams, so that this project would be in addition to existing cycle infrastructure investment. It would, though, be advantageous to badge current schemes as part of the National Cycle Route.

**When will it be delivered?**
This feasibility study has identified a potential delivery programme based on the dialogue with local authorities. Should the project be commissioned, we expect certain sections will be able to be delivered relatively quickly whilst others may take longer. Alternatively, funding arrangements could dictate that certain sections are delivered in a particular order. The findings of the feasibility study will help inform these decisions.
Design Standards - Summary

A set of design standards was developed as part of the first stage of the feasibility study. These are available as a separate document. The design standards strongly emphasise the need for continuity and integration of cycle infrastructure, and that facilities should be appealing to the end user and also consider the needs of non-users. The design standards are a working document, and will be reviewed throughout this stage of the feasibility study in order to best take into account differing local contexts.

The design standards are consistent with the project’s overall aim of the National Cycleway being a domestic exemplar of what high-quality integrated modern cycling infrastructure looks like: safe, direct, coherent, comfortable and attractive. The design standards also emphasise that adaptability will be important as the UK grows its cycling mode-share.

A strong focus is on the best practice seen in places with high levels of utility cycling like the Netherlands and Denmark. Attention is also paid to inclusivity, which not only covers all potential types of cyclists – including those with mobility impairment – but accessibility for all types of other users who will interact with the infrastructure. Benefits to the wider community should also be encouraged: even if individuals do not directly use the route for transport or leisure purposes, the design should take the opportunity for place-making along the route to improve the attractiveness of town centres or other areas through which the route passes.

The default position of the design standards is that cyclists should be afforded their own dedicated space with physical separation from other users. This is an effort to move away from infrastructure strategies that default to a shared use path, or on-carriageway facilities with limited protection from motor vehicles on busy roads. The design standards, however, do allow for sharing with motor traffic, pedestrians or equestrians in certain circumstances – normally where volumes are low. Steps may nevertheless be required to engineer these conditions where they are not currently present. It is likely that many extant greenways through open space or in the countryside which are shared with pedestrians and equestrians would already be suitable for use by the National Cycleway with few changes necessary. In more built-up environments, however, the design standards promote the implementation of dedicated infrastructure for cyclists, consistent with the best practice found elsewhere in the world where cycling for everyday journeys is commonplace.

The design standards acknowledge the varied contexts of the areas through which the route is likely to pass. Quality of infrastructure should be highest where potential for the route to be used is greatest, which is in urban areas or between sizeable settlements in rural areas. However, designs should not be put forward that prevent further expansion as usage grows or new journey possibilities are created that stimulate demand for movement.
HS2 Cycleway: A visual checklist of proposed standards

Throughout the section of HS2 Cycleway route described in these notes, it is intended that the overall route is created to the highest standards of design, of surface, of continuity and attractiveness all based on current best practice guidelines, including the Dutch CROW manual. The following examples drawn from England and Holland indicate what is intended, even though the brief descriptive notes attached to the route section maps may not explicitly say so. The photographs are loosely arranged to run from the town to the countryside ending up with the all-important junction and crossings details. These are required at each and every intersection with trafficked roads.

0 The HS2 Cycle route will start in the traffic calmed core of the town where cyclists share the road space on equal terms with motor vehicles. (Massluis)

1 Almost without exception cyclists will be permitted 2 way down one way streets in order to maximise their direct networks. (Gouda)

2 Sympathetic treatment of main street in typical small town

3 Closure of main street to traffic. (Rotterdam)

4 Typical English town with “pedestrianised” town centre already paved to delineate cyclists. (Stafford)

5 The Embankment, London, showing the space created for the Cycle Superhighway

6 Where space is limited the removal of the central white line and introduction of advisory cycle provision emphasises the presence of cyclists. (Gouda)

7 One lane of the road made into a two way cycling track (Redcliffe Bridge, Bristol)

8 Reallocation of road space through residential development to create 2 way cycle route. (Breda)
9 Cycle track set well back from main road and separated by avenue trees. (Rotterdam)

10 Wide promenade in urban park. (Tamworth)

11 New cycle track in Warwick University grounds with lighting

12 Typical railway path, 2.5m wide rural areas, 3.0m minimum urban areas. (Derby, Melbourne)

13 Wide towpath on Calder navigation

14 Narrow 2m wide towpath on Erewash Canal; note sealed surface with appropriate coloured gravel

15 Typical National Route in rural areas on lightly trafficked road. (Boxtel to Eindhoven)

16 Typical measures to show traffic on lightly trafficked rural roads on routes advertised for cyclists

17 Quiet lane approaching Lichfield – 20mph

18 Typical minor cul-de-sac in Holland, links to ongoing path for cyclists. No motor vehicles permitted except farm vehicles
19 Similar farm access on the way to Waddesdon

20 National Cycleroute (LF) parallel to main road in rural Holland. (LF13 Alphen)

21 Stone based cycle route through National Forest near Ashby-de-la-Zouch

22 Field boundary path with cattle grid and wicket gate approaching Kenilworth

23 Single stage toucan crossing of dual carriageway in Aylesbury

24 Dual use crossing of side road in Gouda

25 Cycling zebra at Aylesbury

26 Priority crossing of side road at Gouda

27 Path continuing parallel to main road (Gouda). Note the crossing is arranged on the desire line
28 Priority crossing in Rotterdam

29 Continuity of route on London Cycle Superhighway to Canary Wharf

30 Direct priority crossing in Lancaster

31 Direct crossing in York on the desire line

32 Treatment of approaches to splitter island at roundabout in Aylesbury

33 New shared use bridge over railway at Aylesbury Station

34 Tank Top bridleway bridge over M1

35 Major new cycle route attached to railway bridge approaching Nijmegen

36 Wide, on the level, underbridge at Tamworth
This short section has the particular objective of delivering a good route from the urban area to Styal Country Park which lies within an easy cycling distance if only there was an attractive family route, and then to create a good link between that National Trust property and Tatton Park.

Tatton Park is seen as the junction of the HS2 Cycleway from Manchester and the other from Wigan (and a third National Trust property – Dunham Massey). For convenience both these routes are treated as ending in Knutsford.

Because of these particular objectives, it is probably best to traverse along the southern boundary of the Airport. The River Bollin Tunnel and the A538 cycling tunnels offer a number of variations which only local knowledge will be able to sift out and decide on the final route. From the perspective of walking between the National Trust properties there are a number of public footpaths in the area which may enhance the walkers route but this study has not had the opportunity to comment on these.

The pertinent points of our preferred route are as follows.

1. The A555, Airport Link Road extension is to provide good quality cycling routes. The HS2 Cycleway needs these to be on the south side of the road and be completed to reach the existing Station cycle route. This cycleway should be well separated from the main road by verge and avenue trees. It would be better to have a single high quality route on the south side of the road than two indifferent ones. Details to connect through to the station and to Painswick Park for Manchester will need to be resolved.

2. Make as direct a link as possible to Moss Lane. Moss Lane continues to the entrance of Styal Park.

3. Reconstruct the existing path to have an even gradient and sealed surface.

4. This drops down to the Altrincham Road for a difficult crossing at the roundabout.

5. It would be much better to engineer a level route to cross over the portal of the road tunnels where there is sufficient space to the security fence.

6. There is the option of going around the north side of the airport perimeter, although this would not effect the Styal Country Park connection. This option is discussed in the following notes. Both ways are needed to serve different audiences.

6a. It would be best to use the east side cycling tunnel if this is possible as the route from Knuts Grove could then cross the main Wilmslow Road by the south portal. Then fashion a new route to move away from the noise and stress of heavy traffic as soon as possible.

6b. Construct new route set well back from main road and integrated with new development.

6c. Connect the end of the old road through to the Ringer Lane cycle track.

6d. Modify the wide Avro Way junction to include a direct and protected crossing for cyclists.

6e. Enhance the existing cycling track with a better surface and continuity at side roads, or possibly consider a greenway through the tree belt, connect through to Thorley Lane and make a direct route to the Airport terminus and to the proposed route to Manchester.

7. The route now has footpath status and drops down to cross the River Bollin in a good bridge from where one gets an excellent view of the almost cathedral like vault taking the Bollin under the 2nd runway. Using this to then run along the north side of the runway land might be an alternative option.

8. It would be possible to maintain a level route above the portal of this bridge as well – something which would be helpful if you were cycling to work every day, but the visitor would miss seeing the Bollin Tunnel.
9 This is a wonderfully situated section of path with wide open views of aircraft taking off.

10 One eventually joins Woodend Lane which makes a most attractive rural ride.

11 Ostler's Lane leads to “Vivien’s Ride” which links through to Lady Lane with a hard, well-built stone surface.

12 Hobcraft Lane is probably carrying much less traffic than it once did? Remove central white line and add cycle lanes to advise drivers of the route.

13 Hobcraft Lane continues to level crossing at Mobberley Cross and the “Railway” pub.

14 Smith Lane continues as a quiet cul-de-sac.

15 Ideally the link to Tatton Park would run along these boundaries to join with existing estate roads. At this stage we do not know the ownership pattern and which option the National Trust would find the most acceptable.
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The main Knutsford Drive leads through to the entrance arch of the town. It might be possible to negotiate a route which bypassed the Park, but Broadoak Lane is a much busier road, and would be difficult to manage. The route shown here follows the existing public footpath but landowners might want a different alignment if they supported the concept at all.

This drive to Tatton Park has a deer proof wicket gate which gives access to the Park. Well used path would need complete reconstruction including the easing of gradients and culverting across the boggy base, and fencing off the section of National Trust park.

Popular park. Moorside avoids the one way King Street and leads direct to the Station.