



Introduction by Professor Sadie Morgan

When the first phase of Britain's new high speed rail network received Royal Assent on 23 February 2017, it marked the start of a new stage of design for the project. The HS2 Independent Design Panel, established in November 2015 has so far been tasked with advising on parliamentary and specification design work.

With confirmation that the project will proceed to construction, we will shortly be engaging with Phase One civil engineering contractors to be appointed in summer 2017. HS2 Ltd has been preparing for this by developing wide ranging design guidance and requirements. It has also used the lengthy tender period for the civil engineering contracts to progress design work in a number of key areas, through specimen designs.

At the same time, parliamentary design work has been continuing for Phase Two. This report outlines the panel's role over the past three months, championing the HS2 Design Vision for every aspect of the project. As chair of the panel, I look forward to continuing our role as critical friend to both civil engineering and station design teams over the coming months.

Specimen designs

One of the most exciting aspects of HS2 Ltd's design work in recent months has been the specimen designs commissioned for: bridges and viaducts; bridge parapets; and the Colne Valley Viaduct.

The panel has encouraged HS2 Ltd to make the most of the time to design during the procurement process for Phase One civil engineering contractors. Pre-Qualification Questionnaires were issued in September 2015, resulting in a shortlisted Invitation to Tender in April 2016. Assessment of the tenders has involved a complex year-long evaluation process, culminating in sign off by the Secretary of State, expected in summer 2017. The panel has challenged HS2 Ltd to maintain the momentum of design work during this period of approximately 18 months.

In response, HS2 Ltd has commissioned Knight Architects to produce specimen designs for several aspects of Phase One civil engineering. These test solutions to key design challenges, and set a benchmark for contractor designs. The panel has applauded the quality of the specimen designs, and is now encouraging HS2 Ltd extend this approach to address other challenges.

Station design procurement

A key area of HS2 Independent Design Panel activity over the past few months has been the procurement strategy to appoint station design teams. The panel recognises the crucial importance of appointing the best possible design teams for the highly complex task of designing stations at Euston, Old Oak Common, Solihull and Birmingham Curzon Street. It has been involved in commenting both on the overarching strategy, and how this is applied for each station.

The panel has been impressed by the creative and flexible approach that HS2 Ltd have taken to station design procurement. In particular, it welcomes the proposal to include 'design challenges' as a way of testing the design skills of bidding teams, in an efficient, focused way. Whilst full station design competitions were considered, the panel agreed with HS2 Ltd that this would not achieve the best outcome, and would be wasteful of resources, both for those tendering, and HS2 Ltd in assessing submissions.

Old Oak Common Station

The parliamentary process has created a requirement for special design panels to be set up for the four Phase One stations in Birmingham and London. An Old Oak Common Station Design Panel has been established with members selected by both the Old Oak and Park Royal Development Corporation (OPDC), and HS2 Ltd.

The Old Oak Common Station Design Panel met in February to discuss work by Weston Williamson on the station design, and the OPDC's wider masterplan ambitions. Whilst finding much to admire in the design work presented, the panel is concerned that there is a mismatch between the station capacity set out in the Phase One Hybrid Bill, and forecasts of the number of people using the station if the regeneration potential of land around the station is fulfilled. The panel has called on HS2 Ltd, the OPDC and the Department for Transport to work together to resolve this issue.

Sustainability

Over the past three months, the panel has taken on an increased role providing independent advice on sustainability. HS2 Ltd has published a Sustainability Approach Document, which provides a vision for the performance of the project in terms of environmental and social sustainability. Tony Burton, vice chair of the HS2 Independent Design Panel, and an expert in sustainability and community engagement, takes a lead on this aspect of the panel's work.

Recent panel meetings have included: carbon; climate change mitigation; and the circular economy. The panel has been impressed by the strategic thinking about these issues, but recommends stronger senior leadership, including a sustainability champion at board level, to ensure this is embedded across the project.

Phase 2a parliamentary design

In December 2016 the panel was invited to comment on the proposed Phase 2a route from Birmingham to Crewe. This provided an opportunity to discuss strategic design issues. At Crewe, the panel encouraged joint working with the local planning authority and Network Rail to ensure improvements to the station and a positive impact on the town. Where the route passes close to settlements, the panel emphasised the importance of maintaining and improving connections for local communities – rather than cutting these off.

Looking forward

The next few months will see HS2 Ltd gear up to manage the design work of seven civil engineering contracts, with a combined value of £11.8bn. Design work will also continue on stations and the Phase Two route. The panel will continue to advise and challenge HS2 Ltd and its delivery partners to maintain a focus on the long term quality, sustainability, and regeneration benefits of the railway.



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