

Introduction by Professor Sadie Morgan

On the 11 September 2021, the HS2 Phase 2a Hybrid Bill received Royal Assent. Cementing in law the government's commitment to bring the UK's new high-speed railway to the north.

HS2 Ltd is in the midst of a procuring a Design and Delivery Partner (DDP) - to lead the design and delivery of the 36-mile Phase 2a route. This includes 2 tunnels, 17 viaducts, and 65 bridges. The outcome of this process is expected to be announced this autumn / winter.

As HS2 Ltd prepares to on-board the Phase 2a DDP, it is important that key lessons from the project to date are communicated to whoever is appointed to help guide design decisions.

Post-Hybrid Bill shift

Hybrid Bill process is a long and demanding process, focused on establishing the minimum requirements for the project. The outcome of the Oakervee Review, announcements from the government on infrastructure and building, changes in government policy (such as the 2019 Environment Bill) and the COVID-19 pandemic have all occurred since the Phase 2a Bill was submitted.

It is important that the Phase 2a DDP is focused on maximising the public value of HS2. Adopting an approach that can deliver 'more than a railway' by embracing the project's ambitions for design quality, innovation and sustainability.

Significant progress has been made to date but HS2 must look to 'bank' this - and go further.

Landscape design

There are a number of fantastic examples from Phase One which demonstrate the importance of a landscape-led approach to the success of HS2.



Schedule 17 designs for Western Valley Slopes, HS2 Ltd

Examples range from transformational and innovative proposals such as the Western Valley Slopes, to the more subtle, such as the landscape designs for Wendover Dean Viaduct. These show the contribution landscape can make to achieving contextually responsive design and embracing the Green Corridor concept.

Lessons such as the importance of a multidisciplinary design team and early discussions with planning authorities to help guide design decisions - will need to be carefully disseminated across the DDP team.

Responding to the site context

A successful aspect of design work on Phase One, has been the increasing emphasis given to context integration and maximising the potential wider benefits of HS2.

Examples such as the public realm proposals for Curzon Street Station, have demonstrated the value of thinking beyond the project 'red line'. Including in supporting collaborative conversations with planning authorities, stakeholders and communities, and in helping secure a positive legacy for the project.

The panel is very supportive of the context integration work for Phase 2a. HS2 Ltd must ensure that the DDP builds on this work and adopts a context integration mindset as design work continues towards Schedule 17 stage.

Supply chain

The panel is supportive of the DDP approach as it offers the opportunity to help address several lessons from the project to date -including the importance of HS2 Ltd retaining greater control over design quality for longer.

The Phase 2a DDP will be responsible for the management and co-ordination of key design and construction contracts. Robust mechanisms are needed to support the DDP to ensure there remains a focus on high quality design across the supply chain. Including, integration between different contracts.

The panel also encourages greater use of small and medium-sized enterprises in meaningful roles within the supply chain.



Kay Hughes, Design Director, HS2 Ltd

Design leadership

Clear and strong leadership on design is essential to ensuring that the Phase 2a DDP perceives design as a priority.

HS2 Ltd senior leadership needs to be thoroughly engaged on design and driving the programme.

The addition of a board level design champion could strengthen HS2 design leadership by ensuring there is a focus on design quality in board discussions, and lend weight to help solve problems.

In preparation for the onboarding of the Phase 2a DDP, it is essential that processes are in place that facilitate and encourage cross-fertilisation of lessons learned and design solutions. Sharing of design solutions between schemes, areas and contractors has potential to offer efficiencies, and to help ensure all aspects of HS2 achieve design quality standards.

For example, the panel was impressed with several the design solutions developed for Balsall Common Viaduct and encouraged HS2 Ltd, to ensure the benefits of best practice were shared as widely as possible.

Looking ahead

The panel is keen to continue to offer support HS2 in a variety of ways. It is important that the panel is involved at the right time and be well briefed on the issues and challenges to be discussed.

Once a Phase 2a DDP has been appointed, for example, the panel would welcome an opportunity to support the on-boarding process - helping reinforce the expectation that design quality is a priority.

Another important area of work for the panel this autumn will be supporting design discussions with the Train Manufacturer, Alstom and Hitachi Rail. The panel is a strong advocate for the HS2 customer experience vision, and is keen to understand how this will drive decision making.



Frame Projects
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HS2 Independent
Design Panel

**HS2 INDEPENDENT
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