

Submission to the Williams Rail Review

January 2019

1. Introduction

- 1.1 Balfour Beatty is pleased to have the opportunity to respond to the call for evidence to the Williams Review of Rail. We believe that the time is right for a comprehensive review of the UK rail industry which would establish the most appropriate organisational and commercial frameworks to deliver the Government's vision of a world-class railway.
- 1.2 World-class transport infrastructure, with efficient rail systems at its heart, is acknowledged as being a key way of enabling and stimulating economic growth¹. This is why Balfour Beatty believes the Government is right to have placed such a priority on rail modernisation in the Industrial Strategy. The railway network plays a central role in connecting areas of employment, getting goods to market, facilitating the growth of city-regions and helping future-proof and strengthen the UK economy in advance of Brexit. It has also been shown to aid the development of clusters of economic activity². It is vital, therefore, that the UK's rail network is able to meet the increasing demands being placed upon it.
- 1.3 The pressures on the rail network are well documented: passenger numbers have doubled since the mid-1990s³ and are set to double again over the next 25 years⁴, with significant future growth in both freight and passenger traffic. Key routes are already operating at, or beyond capacity - in some cases services are overcrowded by up to 200%⁵. Solutions such as building new lines, such as High Speed 2 (HS2), Crossrail and Crossrail 2 (CR2) are key and sorely needed, but they also require significant budgets and their scale alone make them disruptive. Alongside these major schemes, the priority must be to squeeze more capacity out of existing infrastructure. To achieve this successfully, all elements of the railway system will need to be optimised.
- 1.4 We would welcome the Williams Review setting out a far-reaching vision for the national rail network which would not only result in better integration of the infrastructure improvement programme, future rail schemes, rail franchising and other priorities, but would also take account of likely future developments in other forms of transport.
- 1.5 In particular, we believe it is absolutely right to prioritise, as the Review is doing, the interests of passengers and taxpayers. We also support the Review's focus on the possible

¹ DfT, Eddington Transport Study, 2006

² What is the contribution of rail to the UK economy?, Oxera, Prepared for the Rail Delivery Group July 2014

³ Rail Delivery Group

⁴ Network Rail, Market Studies

⁵ Network Rail, Discussion Pack, The Digital Railway Programme

vertical integration of track and train operations. In our view, the fragmentation that the lack of integration drives is a key factor in the challenges facing the railways.

- 1.6 There have been a number of reviews of different elements of the rail sector in the past decade. We encourage the Williams Review team to consider and incorporate evidence from these reviews in the Williams Review.

2. About Balfour Beatty

2.1. Balfour Beatty is a leading international infrastructure group. With 15,000 employees across the UK, Balfour Beatty finances, develops, delivers and maintains the increasingly complex infrastructure that underpins the UK's daily life: from Crossrail and Heathrow T2b to the M25, M60, M3 and M4/M5; Sellafield and soon Hinkley C nuclear facilities; to the Olympics Aquatic Centre and Olympic Stadium Transformation.

2.2. Balfour Beatty is a recognised leader in modern rail engineering. With a successful track record of implementing the latest digital technologies to improve efficiency across the rail infrastructure asset lifecycle, we have planned, designed and managed the construction of thousands of miles of railway systems. From feasibility studies and planning, design and implementation to maintenance and asset management, we provide rail infrastructure services across the lifecycle of rail assets. Our expertise covers track, power, electrification, civils, signalling and railway systems and technologies.

3. Commercial models for the provision of rail services that prioritise passengers and taxpayer interests.

3.1 Balfour Beatty believes that the best way of delivering for passengers and taxpayers on the rail infrastructure side is to allow the supply chain greater room to innovate and play to their strengths in a way which aligns goals through to the end customer. A more collaborative, outcomes-based approach should be prioritized. For example, contractors should be incentivised to reduce the cost of running the infrastructure or to increase capacity and thereby increasing revenue. Digital railway is an example of this approach: the end customer gets increased service reliability and the contractor's margins are improved.

3.2 Similarly, contractors should also be incentivised to improve the reliability of the network to the benefit of the passenger. Operating in this less transactional, more incentives-based way improves outcomes for all parties and drives better performance against shared goals.

3.3 Early Contractor Involvement (ECI) is a key element of increased collaboration and we welcome steps Network Rail has taken to ensure contractors are involved at an early stage. For example, Digital Railway's Early Contractor Involvement Report⁶ highlights that

⁶ Digital Railway, Early Contractor Involvement Report, Delivering Digital Train Control Technology Efficiently - to drive capacity and performance on the railway, December 2016

realising the goals of the Digital Railway programme will require a fundamental change to the way the industry works. The ECI approach has made a major contribution to building confidence in the validity of the business case and deliverability of the Digital Railway Programme. Changing the way projects are currently initiated, and ensuring a more collaborative approach between suppliers, clients and other stakeholders, will deliver significant benefits for Britain's rail industry.

- 3.4 Reaping the benefits of increased collaboration requires customers continuing the trajectory away from the letting over-specified works packages. Overly-detailed specification should particularly be challenged where it prevents greater innovation and hinders suppliers in adapting to unexpected challenges which emerge once contracts have been signed. Customers must also move away from lowest capital cost as the deciding factor in who to partner with.
- 3.5 A fresh approach calls for new collaborative contractual mechanisms and the development of new alliances including Network Rail, Train Operating Companies (TOCs) and suppliers, to achieve effective programme integration. Contracting arrangements will need to be modernised – something which is currently under discussion across the industry. Network Rail now aims to involve suppliers in writing the specifications, rather than developing them in-house and then putting contracts out to competitive tender. We welcome this new approach, which will better allow the knowledge and expertise of rail systems contractors to be captured from concept development to optimise cost, scheduling, specification and risk variables.
- 3.6 The commercial model should also evolve to resolve the current interface issues between Network Rail and the Train Operating Companies (TOCS) in relation to access to the tracks for essential engineering work. While the imperative to keep the impact on the customer as small as possible by keeping line closures to a minimum is understandable, we believe that removing the overriding focus on the commercial risks of possessions and aligning the interests of Network Rail and the TOCs would enable possessions to progress more smoothly from the planning stage onwards and ultimately deliver better for the customer and the taxpayer.

4. Rail industry structures that promote accountability and effective joint-working for passengers and freight

- 4.1 As above, resolving the issue of perverse incentives arising from the current Schedule 4 and 8 payments which compensate train operators for planned and unplanned closures and disruptions to the network, would, we believe, assist in promoting better joint-working. Balfour Beatty believes that a more sophisticated way should be found of achieving the objectives of Schedule 8 without the more punitive elements. From our perspective, it is perverse for the infrastructure owner (and therefore contractor) to have to compensate the TOCs for disruption due to repair work being done to benefit them. Pricing in the Schedule 8 impact of delayed hand-back as risk to the contractor increases the cost of the job and potentially distorts the contracting market.

- 4.2 While the rationale behind the payments is clear in that they provide an incentive to repair damage as speedily as possible, they also have the consequence of draining money from Network Rail, a public sector organisation that is already has a significant debt.
- 4.3 In the case of Schedule 8 payments, these can significantly increase the costs associated with what can often be unavoidable infrastructure repairs. For example, in the case of Conarken Group Limited and Farrell Transport Limited v Network Rail Infrastructure Limited in 2011, HGV drivers damaged a railway bridge and overhead power cables in two separate incidents. Although the damage did not arise from any fault on the part of Network Rail, they were required to pay substantial compensation to train operating companies under Schedule 8. The case attracted much comment in that it demonstrated how damage costs can be multiplied by Schedule 8 payments. While it cost £5,000 to repair the cables, the Schedule payments amounted to £1m.
- 4.4 There are also financial implications for Network Rail of from ‘acts of nature’ which are beyond their control. In March 2012, for example, ScotRail received £2m in Schedule 8 payments in respect of disruption caused by heavy snow and freezing temperatures in two successive winters. If climate change increases the prevalence of extreme weather and related disruption, as it is predicted to, the issue of Schedule 8 payments will become increasingly pressing.
- 4.5 Accountability for running the railways is also spilt without a single entity retaining overall responsibility. While devolution and deeper alliances at Route level aim to improve this and are making some progress towards doing so, without structure change the lack of clear accountability remain. Balfour Beatty believes that a collaborative arrangement where the key parties, trains, track and suppliers are all involved, with common success criteria would work better.
- 4.6 Balfour Beatty welcomes the fact that Network Rail is becoming a more devolved businesses in order to better respond to its local customers and communities, with significant powers and decision-making for routes already having been devolved to a local level. This local focus, combined with opening up the funding, financing and delivery of investment projects to third parties, will, we believe, increasingly help to drive efficiencies and value for money for the taxpayer. Devolved route aligned partnerships are likely to better serve the travelling public as they are by definition route aligned
- 4.7 As highlighted by the Railway Industry Association (of which Balfour Beatty is a member) in its submission to the Williams Rail Review, commercial models tend to be driven by procurement strategies and models, e.g. the ‘boom and bust’ cycle in tenders. Possibly the best example of this is the drop-off in orders towards the end of CP5, combined with a reduction in work on future projects under the Governance for Railway Investment Projects (GRIP) process, which is posing difficulties for the rail network’s supply chain. While companies such as Balfour Beatty are feeling the impact in terms of our own

workforce, there is a particular impact on the smaller and specialist companies in our supply chain, which often only have pipeline visibility of around a year.

- 4.8 Following the reduction in orders towards the end of CP5, the beginning of CP6 and the release of new funding will then see a significant spike in activity, which contractors and the rest of the industry will need to ensure that they and their staff are ready for. The impact to the supply chain of such a downturn in activity followed by a projected increase at the beginning of CP6, is significant. In particular, it makes it difficult for contractors to effectively retain skilled staff and ensure that they are in place when needed and there is a risk that people will drop out of the industry at a time when it should be building rail skills and capability in advance of major schemes such as High Speed 2 and Crossrail 2. This is ultimately an inefficient way of working, increasing costs and negatively impacting productivity.
- 4.9 In our experience, the cost of wage inflation in the rail sector is higher than in other areas of the industry – many of which Balfour Beatty also operates in, giving us the ability to compare. We believe that the short-term CP strategy and the uncertainty around it is likely to fuel that wage spiral going forward. The point here is the same as above: in order to deliver efficiently, the rail supply chain needs certainty about future priorities, programmes and spending levels.
- 4.10 Building on recommendations in the McNulty Review⁷ that Network Rail and TOCs should be much more closely aligned; the July 2015 Budget Red Book⁸, which sets out that Network Rail will devolve power to route manager directors; and more recently, the Shaw Report⁹, which recommends further devolution from the centre of Network Rail to the route level; it is Balfour Beatty's view that achieving better coordination between Network Rail and the TOCs ultimately requires both to also have the same - or better aligned – performance targets. The situation at the moment sees franchise agreements containing a performance regime which can often contain different - and potentially conflicting - targets and metrics compared with Schedule 8. It is our view that an effective regime, which sees Network Rail and the TOCs working effectively together for the benefit of customers should have aligned, rather than conflicting performance targets.
- 4.11 Strengthening the relationship between the tracks and the trains and resolving the issue of their current often competing priorities, would have the consequence of improving joined-up working between the two, resulting in a better outcome for passengers and taxpayers.
- 4.12 Other thoughts on this issue:
- There should be more alliancing between TOCs and Network Rail so that the disruption costs and benefits of renewal work come from the same budget;

⁷ DfT, Realising the Potential of GB Rail: Final Independent Report of the Rail Value for Money Study, May 2011

⁸ HMT, The Budget Red Book, July 2015, page 57-58

⁹ DfT, The Shaw Report: The future shape and financing of Network Rail, March 2016

- With greater route devolution, renewal costs could be compared more closely thereby enabling the benchmarking of best practice (i.e. the routes where TOCs and NR do coordinate and therefore where the supply chain is more productive could be more easily identified);
- Improving access and coordination between TOCS and Network Rail would lead to better productivity for construction works and therefore more rapid progress on schemes, less rework and improved worker safety.

5. A system that is financially sustainable and able to address long-term cost pressures

- 5.1 Balfour Beatty believes that the industry must move from an approach which sees suppliers competing to submit the lowest bid, to a series of incentivised partnerships that take a system-wide view across the asset lifecycle, encouraging ongoing investment in innovation and skills, and offering greater value for money. It is these long term arrangements that provide the certainty to enable us to invest in innovation and people. This is a key way of ensuring the sustainability of the rail infrastructure industry – something which has a major impact on the long term sustainability of the railway system more broadly.
- 5.2 Balfour Beatty has successfully adopted a similar approach with Transport for London (TfL) over the last eight years, where our combined Track Partnership team, which delivers the Underground’s track and drainage upgrade programme, has delivered measurable outcomes. For example, in 2016/17, our integrated team delivered a 10% saving to forecast expenditure and a four-fold reduction in Lost Customer Hours (LCH) when compared to the previous the two years. We are proud to have made a real difference to passengers in London.
- 5.3 As outlined above, the cyclical nature of Network Rail’s control periods has meant that the rail industry has suffered in the past from a stop-start funding landscape. Although difficult to quantify, this has led to an increase in costs and the loss of skilled people to other countries and other industries which in turn drive wage increases. For the rail industry, the need to create certainty of an enhancements project pipeline is pressing. The industry should be building capability for programmes such as the Digital Railway and HS2. Continuity and visibility of project flow are essential to the retention of existing skills. The current stop-go pattern of rail contracts is not only intensifying the loss of skilled engineers to other industries but also undermining the investment case for suppliers contemplating R&D, critical equipment and training programmes. Resolving this issue is critical to the future sustainability of the railways.
- 5.4 As outlined in previous points, current commercial arrangements restrict the innovation that can drive reliability and efficiency improvements. In many cases, they are over-prescriptive and too transactional. Longer term arrangements allow us to overcome these barriers, delivering a better railway for customers, more efficiently. In our view, it is logical for these decisions to be governed holistically across train and track.

6. A railway that is able to offer good value fares for passengers, while keeping costs down for taxpayers

6.1 Balfour Beatty believes innovation has the potential to deliver better, safer, faster, more cost-efficient outcomes for the passenger and the taxpayer. It could significantly improve productivity and provide part of the solution to the skills shortages across the industry. But, although the UK is a leader in railway infrastructure innovation in many areas, its full potential is not currently being leveraged domestically. As outlined in response to previous questions, in order to reverse this, we must move to a situation where procurement processes are less prescriptive, where outcomes are defined and innovative solutions are facilitated and encouraged.

7. A rail sector with the agility to respond to future challenges and opportunities

7.1 Following on from the previous points, the focus on innovation in the Rail Sector Deal is extremely welcome. More must be done to remove the barriers to the adoption of innovation in rail infrastructure.

7.2 Balfour Beatty's cutting-edge Rail Innovation Centre in Derby brings together our expertise in systems engineering, computer science, robotics, data analytics, electronics and electrical and mechanical engineering. Combined with our York and Matlock offices, we employ more than 150 leading technicians, engineers, data scientists and developers to assist the industry's digital transformation. The innovation hub is working on the latest developments in measurement systems, 'predict and prevent' technology, advanced digital surveying techniques, signaling and data science. Products and software being used at the facility include TrueTrak, OmniVision, OmniSurveyor3D, OmniCapture3D, DataMap and AssetView. The hub puts Balfour Beatty at the forefront of rail innovation and is helping create a more reliable, cost efficient and safe railway network for all users across the UK and overseas.

8. Conclusion

8.1 We trust that this submission is of interest to the Review team. We are keen to meet to discuss these points in more detail at the team's convenience.

About Balfour Beatty

Balfour Beatty is a leading international infrastructure group. With 15,000 employees across the UK, Balfour Beatty finances, develops, delivers and maintains the increasingly complex infrastructure that underpins the UK's daily life: from Crossrail and Heathrow T2b to the M25, M60, M3 and M4/M5; Sellafield and soon Hinkley C nuclear facilities; to the Olympics Aquatic Centre and Olympic Stadium Transformation.

Improving the diversity of the people we employ is important to Balfour Beatty. We recognise that it is not only right to ensure that people of all genders and backgrounds are able to access

fulfilling careers in the construction industry; but that a business which fully reflects the society it serves will make us better placed to continue to deliver the most innovative infrastructure for our customers.

As part of Balfour Beatty's commitment to diversity and inclusion, we are working hard to increase further the representation of women employees. Overseen by Balfour Beatty Group Chief Executive Leo Quinn, our diversity and inclusion three-year plan sets out strategic objectives in support of our endeavours, with progress regularly tracked.

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