
Meeting: Rail North Committee Consultation Call
Subject: Infrastructure Focus
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1. Purpose of the Report:

- 1.1 To update the Committee on the progress of infrastructure development and delivery in the North of England in the context of the cancellation of HS2 Phase 2 and the Network North announcement.
- 1.2 To propose activity which can be undertaken by Transport for the North to support the industry to improve the integration of schemes and service changes across the North.

2. Recommendations:

- 2.1 That Rail North Committee notes the updates provided in relation to each of the programmes in development and delivery across the North.
- 2.2 That Rail North Committee endorses the proposed activity set out as next steps, supporting the aspiration for improved engagement with the industry and greater involvement by TfN in the development and delivery of schemes within its region, recognising the opportunities for greater integration of changes.

3. Infrastructure Development and Delivery in the North of England

- 3.1 Across the North of England, major rail infrastructure programmes are in development and delivery which are designed to improve train service performance, deliver a step change in capacity, and reduce journey times, with benefits expected to start to be realised in the early 2030s.
- 3.2 This report provides updates covering:
 - Transpennine Route Upgrade (TRU)
 - Hope Valley Upgrade and Sheffield Area
 - Leeds Area Improvement Plan (LAIP) and Leeds Existing Station Programme (LESP)
 - East Coast Mainline
 - West Coast Mainline North (Trilink)
 - Manchester and North West Transformation Programme (MNTP)
- 3.3 The integration of these schemes, both with each other and with the existing network, in addition to planned rolling stock changes is essential to realising benefits and presents the opportunity for delivering significant improvements for passengers and freight.
- 3.4 With complex and evolving programmes, each with differing levels of maturity, it can be difficult to plan as uncertainties remain. The North of England Integration Board (which Transport for the North is represented on) has been established to address this challenge, providing oversight on how major schemes fit together, and identifying potential conflicts and options for resolving them.
- 3.5 The North of England Integration Board has tasked Network Rail with the development of the Concept Timetable 3 (CTT3) which assesses the ability of the existing and planned infrastructure to accommodate the levels of service committed to within the various business cases for 2032. They are expected to

report the findings in Spring 2024 but have already identified the need for additional interventions beyond current scope, which has helped inform business case development and validated proposals, but also highlighted where without additional funding, service compromises will be required.

- 3.6 The cancellation of HS2 Phase 2 has created uncertainty beyond 2032. HS2 provided a foundation and assumptions upon which future infrastructure and services have been developed. This included key timetable change points throughout the 2030s and 2040s associated with the phased infrastructure delivery acting as points of coalescence around which other changes were planned.
- 3.7 With high-speed infrastructure curtailed at Handsacre Junction, services will be required to use existing infrastructure to reach the North and Scotland. This introduces challenges as the interventions required to effectively integrate high speed services are expected to be significant, and be delivered by 2033, adding to the complexity of interfacing programmes in the North.
- 3.8 Reports providing further detail of the impact of the cancellation of HS2 Phase 2, and making recommendations, will be presented to future committees and boards.
- 3.9 With HS2 Phase 2 cancelled, Northern Powerhouse Rail (NPR) is now the primary scheme for the North beyond 2032, however as HS2 infrastructure was to be used to form part of the NPR network between High Legh and Marsden, there is uncertainty around what infrastructure is now to be provided in these areas. TfN is using its role as NPR Co-Sponsor to shape the network beyond 2032, working with partners and the Department.
- 3.10 This uncertainty makes it difficult for the industry to determine whether those interventions which are required in the immediate term to unlock the benefits of major schemes entering into service in 2032 will ultimately fit with the longer-term network. Consequently, these intermediate interventions must be designed and developed to fit with a range of future (unknown) scenarios.
- 3.11 This report provides updates on those schemes which are set to complete ahead of 2032 highlighting the interdependences of schemes to realising the benefits of Transpennine Route Upgrade (TRU). The report draws attention to where there are short term decisions to be taken on NPR and identifies where there are opportunities to align investments in separate projects to deliver additional overall benefits to passengers.

4. Transpennine Route Upgrade (TRU)

- 4.1 Work to deliver the Transpennine Route Upgrade is progressing at pace, with the recent approval of Programme Business Case 2 (PBC2) funding the scheme beyond the midway point. The additional £3.9Bn of investment in the programme supports delivery of improvements at Ravensthorpe and enhancements to stations including Huddersfield. It also supports development exploring solutions to enhance freight capacity on the route.
- 4.2 2024 will see significant engineering work undertaken as key interventions are delivered across the corridor, most notably in the Dewsbury and Huddersfield area.
- 4.3 Currently, the programme is scheduled to complete in the early 2030s supporting service changes, introducing additional passenger and freight services across the North with reduced journey times and increased capacity.
- 4.4 TfN is keen to engage with the industry and programme to better understand where there may be opportunities to accelerate elements of the programme to introduce benefits earlier, secure local service frequency aspirations and deliver an enhanced freight offer to avoid trains going across the Pennines to Hull, Immingham and Teesside having to route via Doncaster.

- 4.5 In addition to upgrading the Transpennine route, the programme delivers critical enabling works for NPR. Consideration of NPR facilitation east and west of Leeds is currently at development stage and will need to factor in implications of Network North and the cancellation of HS2 Phase 2.
- 4.6 Network North places new emphasis on joining Bradford to Manchester via Huddersfield, improving connectivity to Hull, Leeds to Sheffield electrification and electrification of the Hope Valley line which supports journey improvements between Sheffield and Manchester- the strategic case for TRU is therefore reinforced.
- 4.7 Integrating TRU with the wider network is critical to realising the schemes benefits, without which service compromises will be required due to lack of available capacity. The Manchester and North West Transformation (MNTP) programme, Leeds Area Improvement Programme (LAIP) and Leeds Existing Station Programme (LESP) contain schemes which support this integration. In Manchester, further work is required at Manchester Piccadilly to effectively incorporate the additional train services introduced as a result of the TRU scheme and provide sufficient platform capacity to cater for these additional services and to accommodate longer trains.
- 4.8 Both Northern and TransPennine Express are undertaking procurement exercises to secure new rolling stock required to delivered service uplifts upon completion of TRU infrastructure. It is critical that the introduction of this rolling stock and associated resource and training activity is aligned, building upon the strong working relationships established between Network Rail and the operators during delivery of the programme.

5. Hope Valley Upgrade and Sheffield Area

- 5.1 Work to upgrade the Hope Valley is progressing, with this month seeing installation of the new footbridge at Dore & Totley station. The programme is planning a series of stakeholder site visits to provide more detailed updates on the works.
- 5.2 Network North includes a commitment to electrify the Hope Valley between Manchester and Sheffield, setting out journey time reductions which can be expected, along with the introduction of a third fast path between the two cities. This was reaffirmed in the speech given by Huw Merriman MP at the Transport for the North annual conference.
- 5.3 Achieving the commitments set out in Network North will require interventions at Sheffield to address capacity challenges, and similarly at Stockport and Manchester where there are currently insufficient train paths to support additional services without major infrastructure interventions.
- 5.4 The December 2022 timetable change saw the majority of direct services between South Yorkshire and Manchester Airport rerouted to serve stations to Liverpool, removing a capacity hungry reversing move at Manchester Piccadilly which had previously caused significant operational issues and delays, although the current structure is not without issue as it traverses Slade Lane junction. Restoring direct connectivity remains a priority for partners and businesses and should continue to inform infrastructure and service decisions on this part of the network, but it should be recognised that this is a challenging output to deliver without impacting on other services and network performance.
- 5.5 Working with partners, TfN is undertaking work exploring alternative options to improve connectivity between South Yorkshire and Manchester Airport, working with partners, industry and local businesses, with options identified including improved customer information, ticketing, interchange experience and integrated transport.

- 5.6 Network Rail is electrifying the Midland Mainline which runs between London St Pancras and Sheffield, with the current business case providing funding as far as Market Harborough. The business case for sections 2 and 3 which takes electrification as far as Trent Junctions is due for submission in the coming weeks, with the final business case for electrification of the section into Sheffield still in development, but with Ministerial commitment made for electrification of the full route.
- 5.7 In addition to Hope Valley, Midland Mainline and NPR programmes, several other schemes are in development and delivery impacting Sheffield. Restoring Your Railways schemes included within Network North will see additional services operating on the Barrow Hill line between Chesterfield and Sheffield. Additionally, open access operators have signalled intentions to operate new services to and through Sheffield.
- 5.8 Short term interventions at Sheffield seek to increase capacity at the station through delivering platform enhancements, and is in development by Network Rail, however, it is recognised that further, larger interventions will be required at Sheffield in the long term to accommodate major schemes due to connect with the station.
- 5.9 Two key actions are recommended for Sheffield:
- Designation of Sheffield as congested infrastructure, requiring a plan from the industry to resolve these issues, knowing there are commitments to additional services using the station which cannot currently be accommodated.
 - A greater industry focus on Sheffield, bringing together relevant parties, to integrate programmes, identify solutions and oversee a choreographed programme of investment to realise aspirations, adopting best practice from the Manchester Task Force.

6. Leeds Area Improvement Plan (LAIP) and Leeds Existing Station Programme (LESP)

- 6.1 Leeds is recognised as a key constraint on the national rail network, both in terms of ability to accommodate trains on the network and passengers within the stations. Leeds is the busiest single station in the North of England and is the third highest cause of delays nationally.
- 6.2 The Leeds Area Improvement Plan (LAIP) seeks to address capacity issues on the rail network in the wider Leeds area, including approaches to Bradford. The package of schemes includes platform extensions, upgrading electrification, additional tracks, and reconfiguration of some platforms at Leeds to allow longer trains to be accommodated. These improvements are all due to be in place in the next 5 years, helping prepare for an increase in service provision as part of TRU, with consideration of the requirements at Leeds as part of NPR.
- 6.3 The Leeds Existing Station Programme (LESP) seeks to address passenger issues in the station, equipping the station with the facilities it needs for future growth resulting from TRU. A central new footbridge is proposed with a new southern entrance on Neville Street, but critical enabling works and significant relocation of traincrew facilities are required. The LESP works are due to be completed after the LAIP programme.
- 6.4 A new station gateway is under construction at the moment funded by the Transforming Cities Fund. This will provide significantly enhanced pedestrian access, including new lift access Bishopgate Street which will also accommodate

the station taxi rank. A new cycle hub at the station, which will include electric charging points and storage for all types of cycle.

- 6.5 HS2 Phase 2 Eastern Leg would have delivered a new T-shaped station in Leeds which would have accommodated both HS2 and NPR services. Whilst the Integrated Rail Plan (IRP) cancelled the HS2 Eastern Leg, land remains safeguarded in and around Leeds to facilitate a new station until summer 2024. Network North proposals for the Leeds – Sheffield corridor include four fast services, a significant uplift on what is provided today. It is not clear how these, other NPR / TRU services and aspirations to increase frequency of local services can all be accommodated in the existing Leeds station.
- 6.6 The Leeds Integrated Station Masterplan (LISM) activity led by Leeds City Council oversees all these programmes but is focused on the development of the station. A board with a broader focus more akin to the Manchester Task Force which brings together decisions on infrastructure, passenger improvements and services would be beneficial.

7. East Coast Mainline

- 7.1 HS2 provided an alternative route between London, Yorkshire and the North East via the West Midlands, relieving capacity on the East Coast Mainline (ECML) south of Doncaster. With the HS2 Eastern Leg cancelled, the ECML is likely to remain the primary London route for the North East and parts of Yorkshire and the Humber.
- 7.2 A programme of improvements north of York has been developed. These include the substantial redevelopment of Darlington station, which includes a local funding contribution, and is due to be completed in 2025. A scheme to provide a third track north of York to reduce conflicts is progressing through the Rail Network Enhancements Pipeline (RNEP) process, with implementation planned for 2025.
- 7.3 Additional infrastructure works are needed to accommodate 7 trains per hour on the 2-track section of the ECML between Northallerton and Newcastle. Completion of these works is needed to allow two TransPennine Express services per hour to operate on this section, thus restoring the level of service that operated in 2019. Network Rail has developed proposals and is now progressing business case development. TfN has offered support to Network Rail in this through its rail modelling and analysis capability.
- 7.4 TfN is not currently represented at the East Coast Programme Board where these schemes are governed but following constructive engagement on the development of the December 2024 timetable for the ECML, we continue to push the case for inclusion to improve representation of officer input into the development and delivery of schemes and associated service changes on the route, recognising the impact changes on this route have on services elsewhere in the region.
- 7.5 To consider how the improved connectivity that would have been provided by HS2 can still be delivered, the Department for Transport is planning to carry out the Midlands, Yorkshire, and North East (MYNE) Study. This is planned to start in 2024 and will include sub-national transport bodies and local transport authorities.

8. West Coast Mainline North Upgrade (Trilink)

- 8.1 With delivery set to take place between 2024 and 2034, the Trilink programme will upgrade the northern section of the West Coast Mainline between Weaver junction and Carstairs, replacing life expired overhead wires, renewing track and introducing digital in cab signalling known as European Train Control Systems (ETCS), removing the need for conventional line side signalling which has both cost and performance benefits.

- 8.2 Branded as a 'smart renewal' the intention is to rationalise the route, upgrading those assets which are in use, and removing those which are redundant, with any efficiencies generated being used to support enhancements along the route. Examples include improvements to junction layouts, lengthening of passing loops, thus improving the performance of the route.
- 8.3 Taking learnings from the East Coast Digital Programme, the industry is collaborating to agree scope, identify enhancement opportunities, exploring how best to deliver the works, and considering possession strategies to maximise access whilst minimising disruption to customers. The opportunity for utilisation of diversionary routes to keep passengers on trains as far as reasonably possible during construction works requires consideration, and as seen with TRU, there may be legacy benefits through preparing alternative routes to support west coast services during this time.
- 8.4 Currently the Trilink programme does not include station enhancements, nor interventions to support the operation of high-speed services on the route, e.g. platform extensions to accommodate the proposed 400m length HS2 trains. It is feasible that the scope of the programme could be extended to incorporate such works, if the required interventions are agreed promptly.
- 8.5 As the programme will remove conventional signalling on the route, all rolling stock which uses the line will need to be fitted with ETCS, and drivers suitably trained. Whilst TransPennine Express and Avanti West Coast rolling stock and most freight locomotives are already equipped, or capable of being fitted with ETCS, the older Northern rolling stock which uses this route is not suitable for ETCS fitment. It is therefore critical that the delivery of the Trilink scheme is coordinated with the introduction of new rolling stock by Northern, with due consideration given to the time required for driver training on the new stock, as well as the use of ETCS. This should be managed through the development of an integrated programme incorporating infrastructure and rolling stock milestones, adopting best practice from the approach in practice on TRU.

9. Manchester and North West Transformation Programme (MNTP)

- 9.1 The Manchester Task Force informs which interventions are required to be delivered through the Manchester and North West Transformation Programme (MNPT) providing strategic guidance in the form of a Blueprint for Manchester, with interventions split into Configuration States.
- 9.2 Configuration State 1 delivered the first tranche of infrastructure changes including works to depots and platforms across the North West, and saw the introduction of the December 2022 timetable, with services recast to reduce conflicts and ease congestion, but at the cost of some broken links.
- 9.3 Initial assessment by the Manchester Task Force indicated these changes had delivered a 40% reduction in 'knock on' delays within the Manchester area, but at the expense of connectivity and capacity on some routes. An assessment of 12 months of data to December 2023 shows this is between 25% and 30%, but it should be noted that this period includes instances of significant disruption due to adverse weather and industrial relations issues. Further review of the timetable impacts is ongoing.
- 9.4 However, across the North West, train service performance (using the metric of right time at destination) remains at around the same level as 2019, so whilst the December 2022 timetable is delivering a more robust and dependable train service to passengers in central Manchester, there is more work to do, hence the need to continue with the delivery of further configuration states to gain further performance benefits, including through improving the presentation of trains entering central Manchester. Additionally, scope remains for further improved

reliability within the current timetable if operational issues can be overcome by both Network Rail and the train operating companies.

- 9.5 Network Rail is progressing the development and delivery of Configuration State 2 infrastructure in North Manchester, and Rail North Committee has previously given support to timetable change options, due to be introduced in 2026.
- 9.6 Simultaneously, development of Configuration State 3 infrastructure continues. Business cases are in development seeking delivery funding for changes to Manchester Oxford Road to simplify the layout of the station and nearby junctions, improving reliability and resilience as well as work to the station buildings to improve passenger access, and for platform extensions at Manchester Airport station to provide increased capacity accommodating longer trains and additional services. These schemes are due to be delivered by 2030. Similarly, the development of the business case for the upgrade of the Cheshire Lines Committee (CLC) route between Liverpool and Manchester via Warrington Central continues. Partner briefings have taken place to update on progress, and further engagement is planned to inform the business case.
- 9.7 Where Configuration States 1 and 2 have focused on stabilising the service to provide a more dependable offer to passengers, Configuration State 3 provides the opportunity to restore connectivity and introduce new and alternative services. This means the focus for prioritising services can shift away from prioritisation of performance, and take greater consideration of connectivity, capacity, economic impact, and cost. A paper will be brought to a future meeting of the Rail North Committee seeking a steer on prioritisation of outcomes to inform decisions for Configuration State 3 services.
- 9.8 Configuration State 4 focuses on the infrastructure in the South of Manchester, including Manchester Piccadilly and Stockport. Previously an interim state during the construction of HS2 Phase 2B, these interventions must now equip the network between Manchester Piccadilly and Stockport with the infrastructure needed to accommodate both TRU and high-speed services in the long term.
- 9.9 The DfT held an industry workshop in January bringing together Network Rail (incl. Strategic Planners), representatives from the Manchester Task Force, Train Operating Companies, Transport for the North and local partners to discuss the implications of the cancellation of HS2 Phase 2 and how this would affect the Manchester area in the long term. Following the workshop, the Department are determining the likely scope for CS4, which is focused on the area between Manchester Piccadilly and Stockport and is expected to include additional platforms to the east of Manchester Piccadilly station, adding to the previous options for the development of a new Platform 0 and -1 to support TRU services. Meanwhile, Network Rail are undertaking work looking at the route between Manchester to Stockport in the long-term, which will provide further insight, and help to determine what infrastructure interventions may be required to support service growth in the future.
- 9.10 At Stockport, overcoming capacity constraints will be critical to accommodating high speed services, alongside a third fast train on the Hope Valley between Sheffield and Manchester, and realising ambitions for additional freight and local services. The constraints in this area are driven by the multiple flat junctions, with grade separation required, however there are likely to be both delivery and constructability challenges associated with these works which may require exploration of alternative, more radical solutions, or compromises to services. Any infrastructure works in and around Stockport should be cognisant of upcoming asset renewals and plans to upgrade signalling in the area.

9.11 TfN has developed Revised Statutory Advice for Manchester. This has not yet been submitted to the Secretary of State and requires revision in light of the cancellation of HS2 and its impact on the Manchester area.

10. Next Steps

10.1 Whilst the industry is making efforts to integrate the various programmes in development and delivery across the North of England, including through the North of England Integration Board, due to the complexity of the schemes, and uncertainty surrounding others, there remain gaps where further activity is required.

10.2 The Department manages the Rail Network Enhancement Pipeline (RNEP) which sees investment delivered through a rolling programme, rather than through rigid 5-year settlements as part of the Network Rail control periods. The RNEP pipeline was last published in 2019, and since then many schemes have been funded through the process, but no update has been published, meaning that a comprehensive list of funded schemes is not available. As such, partners and the industry are piecing together details from alternative sources.

10.3 Transport for the North has identified a series of activities which it feels will help to both identify and address gaps, with the aim of achieving a better outcome for passengers. These include:

- Writing to the DfT setting out recommendations to:
 - Strengthen the integration between major schemes in the North of England beyond 2032 by building upon TfN's role as NPR Co-Sponsor, to establish a key link between all industry programmes and our partners. This will include recommendations for TfN to attend all programme boards in the North, recognising our position as a statutory partner, providing local knowledge, data, and insights, and helping to link decisions on infrastructure delivery to the ambitions of our Strategic Transport Plan as our primary Statutory Advice
 - Establish Task Forces for Leeds and Sheffield, simplifying governance in these regions by bringing together industry with local partners to oversee infrastructure and service development and delivery in totality, deploying the approach seen in Manchester which has delivered tangible benefits to passengers
 - Seek the publication of RNEP, seeking timescales for when this publication will be made.
- Utilising the models available to Transport for the North, and through engagement with both partners and the industry, determine the likely footfall increases at the major stations across the North as a result of growth in passenger demand, determining where interventions will be required to increase station capacity e.g. additional footbridges, and working with Network Rail and partners to undertake studies to identify what enhancements are required, taking best practice from LESP. This could be used to inform Statutory Advice relating to stations in the North.
- Working with Rail North Partnership, and train operating companies across the North, identify opportunities whereby infrastructure scheme scope could be amended to maximise the benefits of the introduction of new trains, e.g. expanding the scope of a route upgrade to include changes to platforms to deliver level boarding. Similarly, this may be used to inform Statutory Advice.

11. Corporate Considerations

Financial Implications

11.1 There are no finance implications to Transport for the North as a result of this report.

Resource Implications

11.2 There are no resourcing implications to Transport for the North as a result of this report.

Legal Implications

11.3 The legal implications have been considered and are within this report.

Risk Management and Key Issues

11.4 TfN is currently managing two corporate risks which relate to this report. Risk 647 individual programmes are not aligned and expected benefits not realised and risk 311 future timetable changes in the North reduce rail connectivity.

Environmental Implications

11.5 This report does not constitute or influence a plan or programme which sets the framework for future development consents of projects listed in the Environmental Impact Assessment (EIA) Directive and therefore does not stimulate the need for Strategic Environmental Assessment or EIA.

Rail and investment in rail infrastructure has an essential part to play in achieving our social inclusion and decarbonisation strategic ambitions within TfN's Strategic Transport Plan, particularly in relation to our headline objectives of achieving 51% of trips by sustainable travel modes (as opposed to private cars) and tripling rail freight to 25.5% a tonne km.

Equality and Diversity

11.6 At the time of writing, it is not anticipated that an EQiA will be required for any of the proposed next steps set out on the basis that no physical, policy or process changes are being proposed or implemented.

Consultations

11.7 There are currently no consultations underway in relation to the content of this report.

12. Background Papers

12.1 No background papers are included with this report.

13. Appendices

13.1 No appendices are included with this report.

Glossary of terms, abbreviations and acronyms used

- a) CLC *Cheshire Lines Committee*
- b) CTT3 *Concept Timetable 3*
- c) DfT *Department for Transport*
- d) ECML *East Coast Mainline*
- e) ETCS *European Train Control System*
- f) HS2 *High Speed 2*
- g) IRP *Integrated Rail Plan*
- h) LAIP *Leeds Area Improvement Plan*
- i) LESP *Leeds Existing Station Programme*
- j) LISM *Leeds Integrated Station Masterplan*

Glossary of terms, abbreviations and acronyms used

- k) MNTP Manchester and North West Transformation Programme*
- l) MYNE Midlands, Yorkshire and North East Study*
- m) NPR Northern Powerhouse Rail*
- n) PCB2 Programme Business case 2*
- o) RNEP Rail Network Enhancement Pipeline*
- p) TfN Transport for the North*
- q) Trilink West Coast Mainline North*
- r) TRU Transpennine Route Upgrade*