

**East West Rail Consortium Board
30th January 2020**

Agenda Item 6: Oxfordshire Rail Corridor Study

Recommendation: It is recommended that the meeting:

- a) Welcome and endorse the recommendations of the Oxfordshire Rail Corridor Study Phase 1**
- b) Endorse the following as regional priorities for investment:**
 - **Delivery of additional capacity at/through Oxford Station at the earliest possible opportunity**
 - **Delivery of a solution to the capacity constraint between Oxford North Junction, through Oxford and onto Didcot East Junction at the earliest possible opportunity**
 - **Re-instatement of the Cowley Branch**
- c) Endorse the need for rail services operating to/from and through Oxford Station to be developed in a co-ordinated way in order to support the delivery of planned growth**
- d) Endorse the need to deliver enhanced rail connectivity between Oxford and Swindon, and onwards to Bristol**
- e) Endorse the need for enhanced rail connectivity between Oxford and the Midlands, and support the work led by Midlands Connect to develop a detailed proposal**
- f) Support the need to promote the package of rail infrastructure investments for inclusion in the Rail Network Enhancement Pipeline, with a recommendation that Government should support a Decision to Initiate as a matter of priority**
- g) Support the need for additional and enhanced services in Oxfordshire (and beyond) to be available no later than 2028**

1. Context

- 1.1. In July 2019 England's Economic Heartland published its Outline Transport Strategy. This set out a vision for the development of the region's transport system for the period to 2050.
- 1.2. The document highlighted the particular challenge facing the region in delivering its ambition to support the region realising its economic potential whilst at the same time achieving net environmental benefit.
- 1.3. The Strategic Transport Forum at its meeting on 24th January considered the responses from the engagement on the Outline Transport Strategy. In so doing it also considered a revised vision and updated set of principles for the draft Transport Strategy now in preparation.

1.4. The revised vision considered by the Forum was:

To harness the Heartland's globally renowned centres of innovation to unlock a world class transport system that connects people and places within and beyond our region whilst de-carbonising our transport system

The supporting key principles that flow from that vision were:

- Achieving net-zero carbon emissions from transport no later than 2050
 - Realising economic opportunities through improved intra-regional connectivity
 - Improving the Quality of Life and Well-being through enhance local community
 - Improving access to markets through improved strategic connectivity
- 1.5. Taken in combination the vision and supporting principles will ensure that our transport system meets its obligation to protect and enhance the natural and built environment of the region – a commitment that is embedded in the aspirations for the Oxford – Cambridge Arc.
- 1.6. At the heart of the work underway to develop the draft Transport Strategy is the need to balance economic growth, with the need to effect change in our approach to our transport system – this cannot be 'business as usual'.
- 1.7. East West Rail is a truly transformation project, not just in terms of creating new opportunities for rail travel, but as importantly serving as a catalyst for achieving a more fundamental step change in rail connectivity.
- 1.8. Given the geographical position of the Heartland within the UK the benefits of such a step change in connectivity will be felt across the UK. The rail system in Oxfordshire is a key component in the rail system supporting the region, and a key node in the national network. Unlocking the potential of the rail system within Oxfordshire is therefore as important as delivering East West Rail as a project.

2. The Oxfordshire Rail Corridor Study

- 2.1. It is in this context that both East West Rail Consortium and England's Economic Heartland agreed to be funding shareholders in the study.
- 2.2. The Consortium agreed to commit £25,000 to the study in June 2018 updates on progress were given to this Board at its meetings on 11th June and 17th September.
- 2.3. The first phase of work has been completed. This provides an overview of the rail network serving central Oxfordshire, with a particular focus on identifying the capacity and connectivity improvements considered necessary to support the delivery of planned growth.
- 2.4. A copy of the Executive Summary of the first phase of work is attached as Annex 3.
- 2.5. At the same time, an additional piece of work has examined the engineering feasibility and rail infrastructure requirements associated with re-opening the Cowley branch line. This branch line is currently only open to freight services but the restoration of passenger services would potentially support both existing activity to the east of Oxford, as well as

supporting planned growth. A separate report on this work is available from Oxfordshire County Council if required.

- 2.6. The agreed objectives of the Study were to:
- Establish the priorities for rail investment in Oxfordshire,
 - Demonstrate how prioritised rail investment can support the economy and development in Oxfordshire
 - Ensure the opportunities and benefits of proposed national rail investment (in particular the planned phases of East West Rail) can be secured.
- 2.7. The Study has a baseline of 2018, with demand forecast intervals of 2024, 2028, 2033, 2038 and 2050 and has three growth scenarios:
- **Do nothing:** based on a Department for Transport annual growth rate;
 - **Do minimum:** *do nothing* plus planned rail schemes, in particular Oxford Station Phase 2 and East West Rail Phase 2;
 - **Planned growth:** housing & employment growth allocated to specific sites (note includes all currently proposed Local Plan growth)
- 2.8. The study considered passenger and freight services. For the former, it sets out an evidence base for how planned growth would lead to enhanced rail provision, in two main ways - increased **Capacity** requirements, in the form of additional carriages and, more significantly, better **Connectivity** between key rail hubs, using the measure of generalised journey time, a combination of on-board journey time, waiting time and connection time spent changing trains.
- 2.9. These two needs were then translated into a proposed **Train Service Specification**, setting out the extra services needed to provide the extra capacity and improvements to generalised journey time required, with analysis focusing on peak travelling hour requirements (off-peak is also considered)
- 2.10. At this stage, whilst the study has not identified specific solutions or projects for investment, it has identified (at a high level) likely interventions which will be required on the network, based on a proposed level of enhanced train service. Securing these interventions will ultimately depend on affordability and value for money, and need to be deliverable and fundable.

3. Key Messages

- 3.1. These have been reported against the scenario years tested, with the 2024, 2028 and 2033 scenarios most relevant. The main headlines are:
- **Capacity:** East West Rail Phase 2 will significantly increase demand at key stations, such as Bicester Village, Oxford Parkway and Oxford, but there is sufficient capacity to meet forecast east-west demand on this corridor *assuming this service comes into operation*.
 - **Connectivity.** The most significant finding of the study work, particularly the need for much better connectivity for trips through Oxford linking main growth hubs across the "Innovation Ecosystem" set out in the Oxfordshire Local Industrial Strategy, e.g. on the Didcot-

Oxford-Bicester 'Knowledge Spine', for end-to-end journeys and between intermediate stations.

3.2. **Resulting Train Service Specification.** The tables in Annex 1 identify these by time period and show that overall a significant increase in train services is required to meet the study objectives. Of greatest relevance are:

- The proposal to extend half-hourly East West Rail Phase 2 services through Oxford down to Didcot, calling at Culham, when services begin running in 2024. This would require further consideration on how it is achieved with the DfT and key Stakeholders in the East West Rail programme. Subject to this, it would restore the EWR service pattern originally envisaged, directly connect Bicester with Didcot, facilitating a new "innovation rail corridor" connecting significant science and employment opportunities being created along this line, including development of Culham as a rail hub.
- The requirement for a major uplift in services across the network by 2028, bringing forward a number of proposals not previously considered needed until at least 2033. These include introduction of the EWR service to Cambridge, in line with the stated ambition for the opening of the Central section. In addition to this, the study proposes extending these EWR services beyond Oxford to Bristol and Southampton. This would result in a significantly enhanced "inter-regional" service offer, as depicted in Annex 2. However, this will require further consideration, as it goes significantly beyond the current specification of East West rail services.
- At this stage with the requirements for future growth to be agreed, the analysis of what additional services are required (over and above the 2028 provision) by 2033 simply adds further EWR services between Oxford and Cambridge. Along with other issues raised, this will also need consideration as part of the wider EEH Rail Strategy.

3.3. **Other Issues to Note.** In addition to the key messages other points that the Board should note include:

- *Inter-regional Connections* - although the study is driven by the needs of Oxfordshire it takes into consideration (and supports) rail proposals being developed by others, such as Midlands Connect, which have a bearing on the solutions identified to meet output requirements. These may also increase the justification for investment by combining strategic and local benefits. For example, the Study supports direct services to Bristol, Swindon and Northampton (via EWR at Milton Keynes) as a means of improving connectivity
- *Freight* - the study has looked at capacity, opportunities and what some of the detailed requirement would be. There is recognition that the rail network through Oxford is critical for freight operations – and that there is an opportunity to support major infrastructure projects with rail freight. At this stage, the number of freight paths (both directions) between Didcot and Oxford is predicted to rise from 6 in 2023, to 7 by 2024 and 8 by 2043.
- *Cowley Branch Line* – the study recommendations, including the proposed extension of EWR Phase 1 services from London Marylebone through Oxford to Cowley, directly support the strategic case for this

line. This is a working assumption, which may lead to other EWR connectivity opportunities.

4 Next Steps

- 4.1 The second stage of work will take forward the priorities identified in Phase 1 for a more detailed level of analysis similar to that undertaken for the Cowley study.
- 4.2 The Phase 1 report also sets out the proposals for the next stages of work to complete the study. A number of options have been considered, with the proposal to take forward a programme of study works – whilst the highest priority projects have been identified, recognising that within the current funding envelope not all of the study work necessary may be able to be completed. There will also be several future stages if work undertaken if the envisaged Train Service Specification and other outcomes of this stage of work are to be achieved.
- 4.3 Specifically, it is clear that the highest priority for more detailed consideration and analysis is the core rail corridor between Oxford North Junction through Oxford Didcot, as this is fundamental to the rest of the rail network through Oxfordshire. Indeed it is key to the future of the rail network serving the region and beyond that the UK.
- 4.4 Building on work previously done, there is a clear need to understand the likely scope, scale and cost of the interventions that would be required on this corridor to enable the proposed Train Service Specification, including Cowley branch line proposals. Work on this next stage, to develop four tracking options, Oxford Station requirements and capacity analysis, is proposed to commence in March and last approximately 9 months.
- 4.5 In addition, on the same timeframe, it is proposed to undertake a more detailed study of the Didcot to Swindon section of the network, including the junctions to the north and east of Didcot - it's clear that the Didcot area needs to be considered as whole system in order to understand the need for and options around Didcot East junction enhancement, and the relationship with platform and track configuration in the station area. This will also enable additional services to and from the west to be considered.
- 4.6 The overall study programme still needs to reach a view on how additional growth expected up to 2050 (being considered in the emerging Oxfordshire Plan 2050) is taken into account. This would enable the study to identify potential interventions that provide the capacity and connectivity necessary to accommodate passenger and freight growth over a 30-year timeframe.

5 Conclusions

- 5.1 The outcomes of Phase 1 are very positive, and form a significant evidence base on which to build and develop the case for investment in the network and services.
- 5.2 It is clearly demonstrated that rail has a critical role in supporting planned housing and employment growth and the proposals outlined in the study would place Oxford in a central position as a major UK rail hub for inter-regional travel, as well as providing significant rail connectivity and capacity benefits locally.

- 5.3 For East West Rail, the study provides strong evidence to reinforce the importance of completion of the Central and Eastern sections by the late 2020s.
- 5.4 At the same time it highlights the importance of the additional and amended services by available by 2028.
- 5.5 The implications of this for the region, and indeed the UK, are significant. Consortium members are aware of the timescales associated with the development and implementation of major new rail infrastructure.
- 5.6 In identifying the need for a step change in rail connectivity it is imperative that the regional partners collectively pressed for the Government to accept the need for a package of rail investments in Oxfordshire to be taken forward into the Rail Network Enhancement Pipeline as a matter of priority.
- 5.7 It also highlights the importance of the work being taken forward by Oxfordshire (and again supported by the Consortium) to identify a long-term solution to the question of the crossing at London Road, Bicester.
- 5.8 The study recommendations support the Consortium's position, agreed at the June 2019 Board meeting, as to the importance of East West Rail services continuing through Oxford to maximise strategic connectivity. This requires further consideration of the feasibility and potential connectivity benefit of extending EWR Phase 2 and/or Phase 3 services through Oxford.

January 2020

Proposed Service Enhancements

| | Enhancement | Source | Tph | Origin | Destination | Oxfordshire calls (& inter-regional hubs) |
|------|----------------------|----------------------|-----|---------------|-------------|--|
| 2024 | EWR Western Section | EWR | 2 | Milton Keynes | Oxford | (Milton Keynes), Bicester Village, Oxford Parkway, Oxford |
| | EWR Western Section | EWR | 1 | Bedford | Oxford | (Bedford), Bicester Village, Oxford Parkway, Oxford |
| | Oxford Phase 2 | Chiltern | 0.5 | Birmingham | Oxford | (Birmingham Moor St), Banbury, Oxford |
| 2028 | Cowley Branch | ORCS | 2 | Cowley | Oxford | Oxford Business Park, Oxford Science Park, Oxford |
| | Hanborough | NCLTF | 2 | Hanborough | Oxford | Hanborough, Oxford |
| | North Cotswolds | NCLTF | 1 | Paddington | Gt Malvern | Oxford, Hanborough, (Worcester) |
| | EWR Central Section | EWR | 2 | Cambridge | Oxford | (Cambridge), (Bedford), Bicester Village, Oxford Parkway, Oxford |
| | Coventry corridor | Midlands Enqine Rail | 1 | Birmingham | Oxford | (Birmingham Moor St), Banbury, Oxford |
| | Solihull Corridor | Midlands Enqine Rail | 1 | Birmingham | Oxford | (Birmingham Moor St), Banbury, Oxford |
| | Banbury shuttle | ORCS | 0.5 | Banbury | Oxford | Banbury, Heyford, Tackley, Oxford |
| 2033 | EWR+ | EWR | 2 | Cambridge | Oxford | (Cambridge), (Bedford), Bicester Village, Oxford Parkway, Oxford |
| | Grove new station | ORCS | -- | -- | -- | Hourly call in EWR Central Section service |
| | Begbroke new station | ORCS | -- | -- | -- | Hourly call in Banbury shuttle |

Regional and National Connectivity through Oxford

Passenger offering – Inter-regional direct

