



Strategic Transport Forum

27th September 2019

Agenda Item 7: Oxfordshire Rail Corridor Study

Recommendation:

It is recommended that the meeting:

- a) Notes the progress made on Stage 1 of the Oxfordshire Rail Study**
- b) Considers the emerging outcomes of the study and provides any comments on these for feedback to the project team**

1. Context

- 1.1. At its meeting in June 2018, the Strategic Transport Forum agreed to endorse the progress being made with Oxfordshire Rail Connectivity Study and to make a contribution of £25,000 as 'match funding' required for the study.
- 1.2. The first stage, the Strategic study of the Oxfordshire network, is currently being finalised. The purpose of this stage to assess and quantify changes in rail travel demand arising from planned housing and economic growth up to 2031 (i.e. that identified in current and emerging Local Plans).
- 1.3. The intention is for the study programme to also evaluate the development of rail to take into account additional growth beyond 2031 reflected in the Oxfordshire Plan 2050. This work has not yet progressed as it requires greater certainty on both the level and broad locations of housing growth.
- 1.4. Further detail on the Stage 1 methodology and conditional outputs is given below, including referencing where they relate to East West Rail matters.

2. Methodology

- 2.1. The Study follows the new approach to long term planning which aligns with the rail industry's move away from a fixed five-year funding pot of enhancements to a continuous enhancement pipeline. This "Continuous Modular Strategic Planning" process is built around the formulation and addressing of strategic questions.
- 2.2. The strategic questions are bespoke and focused on the aim of **supporting and enabling housing, jobs and economic growth in Oxfordshire**. They were agreed by the Steering Group overseeing the Study, and include:
 - **Planned Growth:** What is required from the rail network in Oxfordshire to support planned growth to 2031?
 - **Additional Growth:** How can the rail network in Oxfordshire influence the location and scale of additional growth sites?
 - **Freight:** What does the rail freight industry require of the rail network in Oxfordshire?

- 2.3 The Study has a baseline of 2018, with demand forecast intervals of 2023, 2028, 2033, 2038 and 2050 and has three growth scenarios:
- **Do nothing:** exogenous growth based on a Department for Transport annual growth rate;
 - **Do minimum:** *do nothing* plus planned rail schemes, i.e. Oxford Station Phase 2 and, crucially, East West Rail Phase 2;
 - **Planned growth:** housing & employment growth allocated to specific sites.

3 Conditional Outputs

- 3.1 The strategic study has concluded and has defined the **Conditional Outputs** for freight, passenger capacity and connectivity. These are aspirational levels of service which are dependent on affordability and value for money and need to be proven to be deliverable as part of further scheme development.
- 3.2 **Capacity** requirements are in the form of additional carriages needed to provide a seat for all standard class passengers in the high peak hours (0800-0859 and 1700-1759), based on the current type of rolling stock.
- 3.3 **Connectivity** uses the measure of generalised journey time. This comprises the actual journey time on-board plus an allowance for waiting time (i.e. frequency) plus any connection time for having to change trains. Any of these elements can be improved to achieve a better generalised journey time (i.e. reducing journey time, increasing frequency, or removing the need to change).
- 3.4 Both assessments effectively identify pressures and demand on the rail network, and do not at this stage identify the solution. These can be met in a number of ways – providing additional capacity, removing the need to change trains, more frequent train services, new services or altered stopping patterns. Further stages of study work will look at these in more detail.

Capacity

- 3.5 East West Rail Phase 2 (specifically the 3 trains per hour proposed between Oxford and Bedford/Milton Keynes), as it is assumed in the “do minimum’ base case, will significantly increase demand at key stations, such as Bicester Village, Oxford Parkway and Oxford, but there is sufficient capacity to meet forecast demand on this corridor.
- 3.6 Additional capacity is required to relieve congestion on Cross Country services, driven by the peak loadings at Oxford and Banbury. There is an immediate need for an additional 5-7 carriages per hour in each direction by 2023, with another two required by 2028 (so the equivalent of one long or two short trains). Looking ahead, on top of the 2023 requirement a further 3-4 carriages per direction are needed by 2033 with a further 4-5 by 2050.
- 3.7 On the Oxford-London Marylebone corridor, additional capacity is required to relieve congestion due to peak demand at Bicester Village station, with an additional 2-3 carriages per direction are required from 2028. The need for this extra capacity will become more urgent if there is any delay in the opening of East West Rail Phase 2.
- 3.8 Peak loadings at Oxford will require additional capacity on GWR services on the Oxford-Didcot corridor from 2028, when an additional 1-2 carriages per direction will be required, increasing again by a similar number in 2038.

Connectivity

- 3.9 The Study is showing that improvements are required throughout the Didcot-Oxford-Bicester Knowledge Spine, both for end-to-end journeys and between intermediate stations at Culham, Oxford and Oxford Parkway. Housing growth around Hanborough also supports improved connectivity to Oxford and Didcot.
- 3.10 In total there are 20 flows that require better connectivity through a reduction in the generalised journey time. The most important opportunity:



- Between Bicester Village and Didcot Parkway by c.20 minutes
- Between Culham-Didcot and Culham-Oxford by c.5-10 minutes
- Between intermediate stations at Oxford Parkway, Oxford and Culham

3.11 The first and last of these are particularly notable, in terms of connecting centres of growth, and directly supports the argument being made for extending East West Rail Phase 2 services through Oxford down to Didcot (a position endorsed by the consortium in June 2019)

Other Study Areas

- 3.12 In terms of inter-regional connections, the study supports direct services to Bristol, Swindon and Northampton as a means of improving connectivity through a reduction in generalised journey time.
- 3.13 Along with the requirements identified for increased capacity on the 'core' rail corridor through Oxford identified above, there is a clear opportunity for these emerging outputs to be considered alongside rail enhancement proposals identified by other bodies, such as Midlands Connect. So strategically, there is an opportunity to take forward the conclusions of this study to support the case for enhancing national and regional connectivity.
- 3.14 The study provides a pointer for further development of four potential new stations. Two of these would be located on the proposed Cowley Branch Line, one at Wantage and Grove and one at Begbroke. The justification for these new stations is in the main tied to jobs and housing growth proposals located close-by. At this stage, the demand and potential for the stations at Cowley is strongest, and again there is a potential for linking these to East West Rail.
- 3.15 Heathrow Connectivity has also been looked at. As it is not a funded scheme, the Western Rail Link to Heathrow has not been assumed in the base case, and the Study therefore aims for a generalised journey time from Oxford of 100 minutes based on existing travel options, but this could be cut by 30 minutes if Western Rail Link goes ahead, reinforcing its importance.
- 3.16 Similar work has been undertaken on freight, looking at capacity, opportunities and what some of the detailed requirement would be. A key identified requirement is to retain freight capacity through Oxford and to plan for additional paths through Oxford to cater for the predicted rise required.

4 Conclusions and Next Steps

- 4.1 The concluding part of Stage 1, now underway, is developing a **Train Service Specification** that delivers these Conditional Outputs, to form part of the final report this autumn. A further report setting out the final conclusion of the strategic study will be presented to the Forum in November, when members will be invited to agree the final Study outputs. In parallel, similar endorsement will be sought from DfT and Network Rail decision making bodies, and other funding partners including the Oxfordshire Growth Board.
- 4.2 The second stage of the study, likely to start at the beginning of 2020, will be to carry out initial more detailed Definition Studies for three or four selected interventions. These would be to a similar level of detail to work being completed for the Cowley branch line. Views on the scope of this work will be sought from the Forum at the meeting in November.
- 4.3 Whilst it is premature to reach any further conclusions at this stage, it is clear that the 'core' rail corridor through Oxford is likely to be pivotal and is linked to clear opportunities for the further development of East West Rail services.



- 4.4 Work on stage 2 of the study is due to be concluded later in the Spring and reported back to this Forum in early summer 2020. Alongside this, a methodology and programme for factoring in additional growth up to 2050 will be taken forward.
- 4.5 There is a clear opportunity to reflect the evidence and conclusions from this study work into the proposed EEH Rail Study, in the context of the Williams Rail Review and other potential changes to the rail landscape.

5. Related matters - London Road Level Crossing, Bicester

- 5.1 Whilst it is not part of the Rail study, EEH has recognised the need to make the identification of a long-term solution to removing the conflict at London Road level crossing in Bicester a national strategic priority for Network Rail. It was identified as one of the EEH infrastructure priorities for the 2018 national budget.
- 5.2 To progress a solution, a proposal has been submitted to the EWR Consortium Board to use the previously agreed £25k funding allocation to develop a Strategic Outline Business Case as the next step in taking forward a proposed intervention at this location. Updates will be provided once this work has been undertaken.

John Disley
Infrastructure Strategy & Policy Manager, Oxfordshire County Council
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