

Options for the Abbey Line

Ashley Stower / Nick Hewett / Karsten Scholer

- ▶ Further to the Capacity Plus study Hertfordshire County Council requested how it could achieve an enhanced service on the Abbey branch.

- ▶ The remit questions for consideration;
 - Increase the service to half hourly
 - A direct service to London option
 - Half hourly with a direct London Service

- ▶ To note:
 - A previous “Bricket Wood” passing loop study was evaluated (led via Andrea Haynes), many changes have occurred such as the signalling on the branch (further to Watford Area Re-Signalling). Therefore we have started from the remit questions

- ▶ For the high level evaluation NR Capability Analysis was consulted;
 - Current journey times along the line do not allow for a 30 minute service frequency.
 - Capability Analysis assessed options for a 30 minute frequency using the developed 2026 timetable
 - Assumptions - CP5 end position (as currently published) & full HS2 route is delivered, Market Study Conditional Outputs for 2043
 - To achieve an enhanced service for all remitted options infrastructure interventions are required

- ▶ If Hertfordshire CC wish to progress the scheme to feasibility (GRIP 2) this will be as a third party funded enhancement – described later

Option development

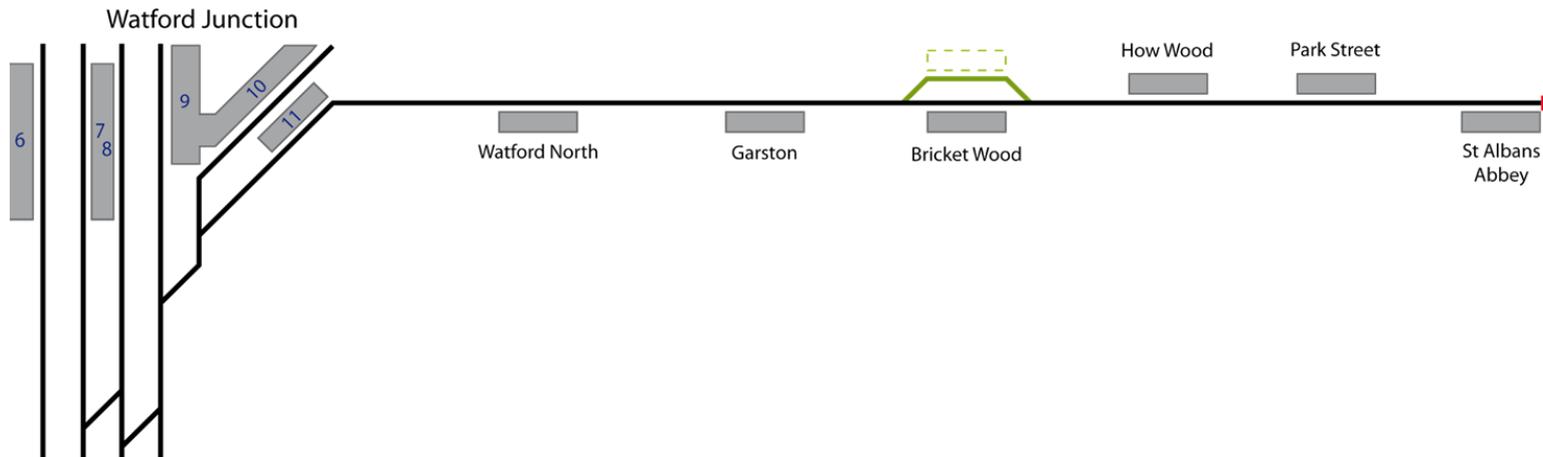
Network Rail has undertaken initial Abbey Line feasibility work to scope the nature of potential interventions. From this work, we can provide the following:

- ▶ Three potential infrastructure interventions aligned to the proposals for an enhanced train service subject to a timetabling assessment; and
- ▶ A cost estimate providing a cost range for a scheme. These include a 60% contingency factor due to the early nature of the scheme, as recommended by Network Rail estimating guidance.

The interventions are based on two aspects of a potential train service enhancement:

- ▶ Increasing service frequency to 2tph; and
- ▶ Operating a through service from the Abbey Line to London.

Option 1: Half-hourly shuttle service



- ▶ Enables a second train to operate on the branch, aiming to fulfil the 2tph aspiration
- ▶ Estimate based on full signalling of the route replacing the current token-based operation
- ▶ Both platforms built for 8-car operation
- ▶ Includes fully accessible footbridge, new shelter and information points for the new platform.

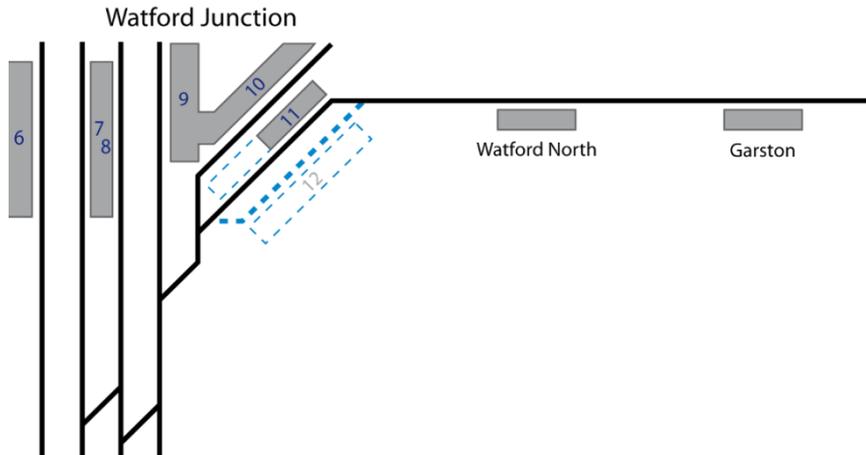
Option 2: Direct London Service

This option is seen as a requirement for a through service London Euston – St Albans Abbey based on the following assumptions:

- ▶ A four-car train would not provide sufficient capacity to justify a path between Watford Junction and London Euston.
- ▶ This intervention is delivered in isolation to other enhancements

- ▶ Extends seven platforms from four to eight car length
- ▶ Includes any necessary repairs and refurbishment to existing platforms

Option 3: Half-hourly service direct to London



This option enables:

- ▶ A through service London Euston – St Albans Abbey, with only a 4-car portion working through to St Albans Abbey
- ▶ This option mitigates the need for platform extensions at Abbey Line stations
- ▶ This loop location is highly unlikely to enable a 2tph service with current calling patterns without a second intervention

- ▶ Provides two 8-car platforms serving the Abbey Line
- ▶ Full signalling required for new platforms and branch line
- ▶ Requires complete replacement and relocation of existing platform 11, with a temporary platform in place during construction
- ▶ Includes a link footbridge and provides full accessibility to both platforms
- ▶ Avoids any impact on/ changes to WCML Slow Lines.

Train service options

Train service enabled	Anticipated infrastructure requirement	Estimated cost ranges
2tph Watford Junction – St Albans Abbey	Intermediate passing loop	£15m-35m
1tph London Euston – St Albans Abbey	Platform extensions	£15m-35m
2tph London Euston – St Albans Abbey (train divides at Watford Junction)	Additional platform at Watford Junction; Intermediate passing loop	£35m-75m

Further considerations affecting any business case

We have only presented infrastructure interventions, and the following would need to be brought into consideration for a full business case:

- ▶ Rolling-stock implications
- ▶ Train crew implications
- ▶ Any increase in operator subsidy or profit
- ▶ Agreement of Track Access Rights
- ▶ DfT and TOC agreement
- ▶ Re-franchising programme
- ▶ Planning consents
- ▶ Revenue allocation
- ▶ Safety considerations
- ▶ Wider capacity utilisation on the West Coast Main Line

St Albans, Abbey Line Enhancement Project

Delivering your feasibility study

Presented by; Karsten Scholer

Feasibility Study – GRIP stage 2

To provide costs that would support a robust business case an appropriate study should be carried out to investigate feasibility.

This study would investigate the engineering, construction, operational and property factors influencing this project.

The quality of the output is assured by combining NR's development and operations skills collaboratively with those of our rail systems specialist framework contractor.

The output from this study would provide the certainty to enable a robust outturn cost to be produced.

We have produced a proposal to deliver this GRIP 2 study for you.

GRIP stage 2 – key deliverables

The feasibility study will address this requirement:-

- 'to consider the potential viability of a half-hourly train service between Watford Junction and St Albans Abbey, as well as the potential for providing a through service from the Abbey Line to London Euston'

The primary deliverables would include:-

- Timetable study
- Engineering & infrastructure assessment of potential interventions (limited to heavy rail options)
- Risk register
- Cost estimates & estimate report
- GRIP stage 2 feasibility report

GRIP stage 2 – cost & time

- The cost of producing the GRIP 2 feasibility study as described is estimated at £257k. This includes a contingency sum of £41k which would not be charged to you if it was not required.
- The duration for completing this study is of the order of 6 months from contract start date.
- We would liaise closely with you and you would receive regular progress and expenditure updates.
- Full details of the estimate build up and the programme are provided

Feasibility Study Proposal

To provide HCC with the information and confidence to make the right business case decisions, a feasibility study should be carried out by Network Rail's experienced development team in conjunction with our rail systems framework contractor.

This would highlight the key project issues and provide increased certainty as to how these should be addressed. Robust outturn cost estimates would be able to be provided for you at that stage.

Today we have provided you with a written proposal that details the services encompassed in this study along with the costs and timescales for doing so.

Within the proposal document we also detail the forms of contract with which NR can be engaged for these services and also the next steps that you would take should you wish to progress the scheme.

Any questions?