Legge Infrastructure Services, in Partnership with PRA Operations Planning Limited



West Coast Main Line South Capacity Assessment

Project PRA 5183

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Signed on behalf of PRA

[redacted]

Signed of behalf of LIS

[redacted]

Note:

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Front cover photo: Class 390 Avanti Pendolino slowing for its Tamworth call © PRA

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1. Executive summary

This report examines WCML South from an operational perspective only, with specific reference to capacity and performance, being compiled following scrutiny of all the available correspondence as supplied by the ORR, suitably referenced as appropriate. Other potentially relevant external issues are unknown to this report and therefore have not been considered.

- It is concluded that all the evidence from Network Rail is consistent and comprehensive across the various correspondence examined.
- Whilst all statements were compiled by Network Rail against previous timetables, including the December 2022 Concept Train Plan (CTP), they follow a common theme that requires minimal alteration when compared against the May 2026 working timetable.
- Network Rail have considered all operational, performance and capacity factors with respect to its evidence.

- Avanti 35th Supplemental is granted as the requested contingent right between Crewe and London Euston.
- Avanti 36th Supplemental is not granted firm rights at present for all requested services.
- Avanti 39th Supplemental is not granted firm rights at present for the Blackpool North services. However, firm rights can be granted for the 1A78 19.29 Chester to Euston but only between Chester and Crewe, but not beyond Crewe. This is based on the past and current performance of the preceding train - 1A77 19.15 Manchester Piccadilly to London Euston, which calls on WCML-S at Stoke-on-Trent, Nuneaton, Rugby and Milton Keynes as commented on by Network Rail. If delayed by the preceding 1A77, the 1A78 will cause a performance impact on the subsequent simultaneous crossing movements at Ledburn Jn to both northbound and southbound trains.

- Lumo (Rochdale) is not granted any rights at present for all requested services.
- Several conflicts in the proposed schedules were identified both within and outside of the geographical scope of this study. Notwithstanding the previous comments, there is still a major issue of general congestion and removal of 'firebreaks' as identified by Network Rail, in this report. In addition, whilst outside of the geographical scope of this study, the impacts of TRU (TransPennine Route Upgrade) Diversions over Calder Valley until post 2030 (Lumo Rochdale services) must be considered in relation to this application.
- The application from Lumo (Stirling) to replace the existing Class 222 diesel units, and for those to be replaced by higher performing Class 80x Bi-Mode battery and overhead electric units is welcomed. This will bring an improvement to the overall use of capacity over the entire WCML route, but the extension of rights to 2038 as requested, cannot be considered until an improvement in WCML performance overall occurs.

- Wrexham Shropshire and Midlands Railway (WSMR) is not granted any rights at present for all requested services.
- The application by WSMR needs to be reviewed over the complete routing between London Euston and Wrexham General, to assess the bid in greater detail for all services.

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This would assist in determining compliance with all published TPRs and SRTs, accompanied by clear documentation of any assumptions made in the compilation of the bid. As stated above, several major conflicts in the proposed schedules were identified both within and outside of the geographical scope of this study. Notwithstanding the previous comments, there is still a major risk of general congestion and removal of 'firebreaks' as identified by Network Rail, in this report. Again, it is repeated that WSMR would need to use Class 221 units with tilt operative to achieve the stated paths for which they have applied.

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2. Introduction

Legge Infrastructure Services (LIS), in partnership with PRA Operations Planning Ltd (PRA) have been commissioned by the Office of Rail and Road (ORR) to review all evidence as provided by Network Rail in the Access Requests for three separate bidders in relation to West Coast Main Line South (WCML-S).

The geographical area to be studied is London Euston to Rugby on the Fast Lines only via Weedon and not via Northampton. This included any services which use WCML-S only in part such as London Northwestern Railway (LNR) which use the Fast Lines between London Euston and Ledburn Junction (following discussions with the ORR this was extended to include Coventry, Nuneaton and Stafford exclusive).

The following rights applications have been made to the ORR under the Railways Act 1993 by the following Train Operating Companies (TOCs): -

Company	Date of Application as shown in the accompanying Form P	Relevant Section
Avanti 35th Supplemental	07/04/2026	Section 22
Avanti 36th Supplemental	31/03/2026	Section 22A
Avanti 39th Supplemental	30/04/2026	Section 22A
Lumo (Rochdale)	28/10/2025	Section 17
Wrexham Shropshire and Midlands Railway (WSMR)	28/11/2025	Section 17

- Avanti
    - 35th Supplemental - 1 Crewe to London Euston (Sundays)
    - 36th Supplemental - Amendments of multiple London Euston - Liverpool Lime Street and return services on various days
    - 39th Supplemental - 1 London Euston - Blackpool North and return service (Monday - Saturday). 1 Chester to London Euston (Monday to Friday)
- Lumo (Rochdale) - multiple return journeys London Euston - Rochdale/Manchester Victoria on various days
- WSMR - multiple return journeys London Euston - Wrexham General on various days

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3. ORR ITT Scope & Deliverables

Remit from ORR

For this remit, the consultant will have two areas of focus:

· An assessment of the evidence provided by Network Rail

· An independent assessment of the effect on performance of 'filling' the spare paths identified in Network Rail's evidence

The consultant will be tasked with answering the following questions:

With respect to NR's evidence:

· How comprehensive is the evidence provided by Network Rail?

· Is the evidence provided by Network Rail clear and consistent across its different documents?

· Has Network Rail considered all relevant factors with respect to its evidence?

· Has any change in assumptions and circumstance been clearly identified and accounted for?

The above questions are specifically relevant in respect of compliance with planning considerations, such as Train Planning Rules. Other factors, such as power supply, are out of scope for this remit.

With respect to an independent assessment of performance:

· What would be the implications on performance be if some or all the identified spare paths were filled by the potential applications listed above? This should be broken down by each individual spare path.

ORR Deliverables

The consultant is to deliver:

• Interim presentation of emerging findings (this milestone was delivered to the ORR on 12th May 2026)

• Draft report for comment which details a clear conclusion on robustness (capacity and performance) and consistency of NR position.

• Final report which includes considered responses to comments from ORR

• A presentation of the findings and recommendations to ORR

Any analysis carried out by the Supplier in support of the contract deliverables must be supported by analytical assurance. This must be documented and an analytical assurance statement submitted to summarise the assurance that has been carried out together with the risk of error, scope for challenge and any uncertainties associated with the analysis.

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4. Assumptions and Methodology

Whilst compiling this report, the May 2026 Working Timetable (WTT) extracted from Network Rail 20th March 2026, has been used as a base along with Version 4 of the 2026 Train Planning Rules (TPRs) dated July 2025 as issued by Network Rail. PRA hold a current licence for Signature Rail's TrainPlan© Train Planning Software, which has been used in this project.

Much of the work and responses associated with the various applications that have been made date back to the December 2022 Concept Train Plan (CTP) and therefore there will be several detail differences between the CTP outputs when compared to the latest published May 2026 WTT.

Following discussions between ORR / LIS / PRA, it was agreed that the geographical area to be studied should be amended to London Euston to Coventry / Stafford (exclusive) via Nuneaton and the Trent Valley route (Fast Lines only).

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5. Performance

- The Route Performance overall on the WCML South is poor with right time (RT) figures being typically 30-40% (as supplied by Network Rail, see letter from Akaash Bhandari of Network Rail to Samuel Fox of ORR dated 21st April 2026 'Network Rail Infrastructure Limited Representations for the 39th Supplemental Agreement submitted under Section 22A of the Railways Act 1993 for the Track Access Contract between Network Rail Infrastructure Limited and First Trenitalia West Coast Rail dated 01 December 2022') (see Appendix D) and the letter from Paul Harris of Network Rail to Alice Kaiser of ORR dated 25th April 2025 titled 'Network Rail General Representation on Complex and/or Competing Applications Interacting on Location West Coast Main Line' section titled Summary Performance Conclusions (WCML South) (see Appendix B). There could be a number of contributary factors associated with these figures: -
    - Indifferent overall use of capacity with sub-optimal flighting of services involving rolling stock types and station calls.
    - Sectional Running Times (SRTs) for Class 80x units could be subject to verification in the light of actual experience of these trains, notably when running at the "MU" differential speeds.
- Network Rail have highlighted congestion as a key factor of the poor performance in general of the WCML South, between London Euston and Rugby. In this section we will explore some possible contributory factors.
    - There is a specific rule stated in the applicable Train Planning Rules (TPRs) (v4.0 of 2026 rules as published by Network Rail on 11th July 2025) that following a train crossing DF to DS at Ledburn Jn, the next train remaining on the DF headway can be 2.5 minutes, although the ruling headway on the DF is 3 minutes. However, the performance implications of the first train being delayed can have a knock-on effect to any following services, especially if the train concerned has also called at Watford Junction and occupies a key position, leading a flight of services running at or close to minimum compliant headways.
        - NB in relation to the above, applications have been made for xx.36 to Rochdale (80x) or Wrexham (22x), which would mean after Watford Jn, there would be 7 successive services close to or at minimum headway.
    - Network Rail have consistently and correctly identified the risk of congestion as a key element of poor performance of WCML South, this is cited in various correspondence listed in the attached appendices. This highlights the need and subsequent retention of 'firebreaks', which are built into the timetable and assist with service recovery at times of perturbation. Utilising these 'firebreaks' for running additional services would significantly reduce any ability for recovery.

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- The effects of the additional Lumo London Euston - Stirling services are unknown as these services have not yet started running, which could reduce the above performance levels further. It is difficult to accurately gauge the effects on performance of WCML-S as the Class 222 units employed on these services by Lumo have never run in regular passenger service on any part of the WCML

    - Network Rail have highlighted in previous correspondence - letter from Jake Kelly / Hannah Linford of Network Rail to Gareth Clancy of ORR titled 'Firebreaks and performance on the WCML ('WCML')' and dated 4th February 2026, that the Stirling operation could be estimated at 100 minutes of performance delay, but this cannot be measured until full service introduction. (see Appendix A)

- General performance currently on WCML South is clearly well below the required levels for such a crucial route with right time figures of between 30%-40% being recorded at certain locations

    - the national target being 66.8%, as referenced in Section 2.10 of ORR's PR23 final determination: Summary of conclusions and overview for England & Wales of 31 October 2023
    - Reference letter Network Rail to ORR from Akaash Bhandari to Samuel Fox dated 21-04-2026 regarding 39th Supplemental Agreement (see Appendix D)

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6. Project Findings and Issues

Extract of Theoretical Fast Line Down Paths from London Euston from Network Rail (see Appendix A, Table of paths, listed on page 2)

The below tables list observations and impact of how the paths being applied for would affect the performance of the route.

Dep Time Euston	Company	Status	Observations and comments
06.02 (SX)		Not Bid	The path is not viable between Rugby and Attleborough Jn due to numerous freight services and 1H02 06.08 London Euston to Manchester Piccadilly Avanti service in rear
08.20/36 (SX)		Not Bid	08.36 must be formed of a 221T or 390 as 9S54 08.40 London Euston to Edinburgh via Birmingham New Street to be ahead of this path. An 80x-E or a 222 cannot be used without amendment to 9S54. Congestion - there is a 08.23 (Watford call), 08.30, 08.33, **08.36**, 08.40, 08.43, 08.46 without a firebreak If a 08.20 path is included (stopping at Milton Keynes, calling / to be overtaken). Congestion - there is a 08.07, 08.10, 08.13, 08.16, **08.20**, 08.23 (Watford call), 08.30, 08.33 without a firebreak
09.20/36 (SX)			9S55 London Euston to Glasgow Central via Birmingham runs out of pattern at 09.36
09.40 (SX)	Avanti (B'pool)	Bid	Congestion - there is a 09.23 (Watford call), 09.30, 09.33, 09.36, **09.40**, 09.43, 09.46 without a firebreak
11.20/36 (SX)	WSMR (11.36) Lumo (11.36)	Bid Bid	11.20 path not viable due to the 1Y31 11.23 LNR service to Birmingham being retimed to depart at 11.19 out of pattern, due to 6W52 11.21 London Euston to Willesden Euroterminal conveying HS2 spoil waste running. If a 11.36 path. Congestion 11.19, 11.21 (Spoil), 11.30, 11.33, **11.36**, 11.40, 11.43, 11.46 without a firebreak
12.20/36 (SX)		Not Bid	Congestion issue similar to 08.20/36

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14.20/36	WSMR (14.36) Lumo (14.36)	Bid Bid	This is similar to 11.20/36 1Y43 14.19 London Euston to Birmingham and 6W54 14.22 London Euston to Willesden Euroterminal
17.20/36		Utilised	Additional 1W57 17.20 London Euston to Northampton. 1P94 17.36 London Euston to Blackpool North
18.20/36		Utilised	Additional 1W63 18.19 London Euston to Northampton If 18.36 path included. Congestion 18.19 (Watford call), 18.26, 18.30, 18.33, **18.36**, 18.40, 18.43, 18.46 without a firebreak
19.20	WSMR (19.36)	Bid	1P04 19.19 London Euston to Preston Lumo Service calling at Milton Keynes, thus also utilising the 19.36 path north of Milton Keynes

It should be noted that an xx.20 or xx.36 departures from London Euston effectively use the same path north of Milton Keynes. The key difference between the two options is the xx.20 departure can be utilised by a non-tilting train which then is required to recess at Milton Keynes for approximately 8 minutes. This permits the xx.20 to be overtaken by two following Avanti services (xx.30 and xx.33) Class 390 Pendolinos (tilting) and then occupying the next available path. If a departure is made at xx.36 from London Euston and is formed of either a Class 80x-E or a Class 222, then the required headway of 3 mins between trains cannot be maintained to Rugby ahead of the xx.40 London Euston departure of a Class 390 (tilting). It is noted that in order for an xx.36 path to be compliant on headway, the following xx.40 from London Euston would require path amendment between London Euston and Birmingham New Street. An example of this within the May 2026 timetable is 1S03 16.36 (Lumo) London Euston to Stirling operated by a Class 222 and 9S93 16.40 London Euston to Edinburgh operated by a tilting Class 390, resulting in an extended journey time between London Euston and Birmingham New Street.

There is, however, an example of compliantly running an xx.36 formed of a Class 80x-E ahead of an xx.40 formed of a tilting Class 390. This features in the Avanti 39th Supplemental bid on a Saturday only where there is a 09.36 London Euston to Blackpool North formed of an 80x-E, followed by a 09.40 London Euston to Glasgow Central. This can only be achieved by amendment of the schedule of the 09.40 departure between Milton Keynes and Birmingham New Street with use of pathing time and reduction of the station dwell at Birmingham New Street to maintain the compliant headway between trains. Additionally, this would remove a 'firebreak' and create 7 successive northbound services (Down) running at or close to minimum headway between Watford Jn and Ledburn Jn with the first train in this increased flight both calling at Watford Jn and crossing to Down Slown line at Ledburn Jn.

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Fast Line Up Paths to London Euston (see Appendix A, Table of paths are listed on page 2)

Arr Time Euston	Company	Status	Observations and Comments
08.58		Not Bid	Path occupied by 1R19 07.00 from Manchester Piccadilly arriving 08.59
10.58	WSMR (10.57) Lumo (10.57)	Bid Bid	If path included. Congestion 10.50 (Watford call), 10.54 (Watford call), **10.58**, 11.03, 11.06, 11.09, 11.12, 11.17 without a firebreak
12.58		Not Bid	If path included. Congestion 12.50 (Watford call), 12.54 (Watford call), **12.58**, 13.03, 13.06, 13.09, 13.12, 13.17 without a firebreak
15.58	Avanti (B'pool) (16.00)	Bid	If path included. Congestion 15.49 (Watford call), 15.54 (Watford call), **16.00**, 16.05, 16.08, 16.11, 16.14, 16.17 without a firebreak
16.58		Not Bid	If path included. Congestion 16.50 (Watford call), 16.54 (Watford call), **16.58**, 17.04, 17.06, 17.09, 17.12, 17.17 without a firebreak
18.58		Not Bid	If path included. Congestion 18.50 (Watford call), 18.54 (Watford call), **18.58**, 19.03, 19.06, 19.09, 19.12, 19.17 without a firebreak
20.58		Not Bid	If path included. Congestion 20.49 (Watford call), 20.54 (Watford call), **20.58**, 21.03, 21.06 without a firebreak.
21.43	WSMR (21.38) Avanti (Chester) (21.40 1A78)) Lumo (21.41)	Bid Bid Bid	If path included. Congestion **21.38, 21.40, 21.41,** 21.49 (crossing at Ledburn Jn - up Slow to Up Fast) (Watford call), 21.54 (Watford call), 22.05, 22.08, 22.14
21.58		Not Bid	If path included it is not as significant an issue as 21.43 slot, however platform capacity at London Euston may be an issue

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Applications for Additional or Amended Rights

With reference to Lumo (Rochdale), WSMR and Avanti bids:-
The 25th April 2025 letter from Network Rail sets out the relevant performance information in the "WCML Performance - London Euston to Rugby" section and confirmed that Network Rail does not support any additional WCML South applications seeking to utilise additional capacity on the fast lines, as this would have a significant detrimental impact to performance. (see Appendix B)
In addition, Network Rail's Appendix C Fast Line Capacity Analysis of 05th February 2025 details current performance issues before additional rights are granted and increased departures and arrivals at or close to minimum headways on WCML South. (see Appendix C)

Using professional experience and knowledge, gleaned principally during PRA working on East Coast Main Line timetable construction, platform occupation at London terminal station is key when additional services are introduced. This is particularly relevant when Open Access Operators (OAO) are involved, as incoming services of that OAO, can then only form out going services of that same operator and could therefore have an effect on overall platform occupation at said terminus as was noted at London King's Cross station. This is also relevant for Avanti operations at London Euston, as Classes 805/807 are restricted to certain routes and cannot be as widely used as a Class 390 Pendolino, leading to potentially prolonged platform occupation.

As stated in the letter from Paul Harris of Network Rail to Alice Kaiser dated 25th April 2025 'Network Rail General Representation on Complex and/or Competing Applications Interacting on Location West Coast Main Line.' Pedestrian flow analysis provided shows that capacity at London Euston is forecast to be exceeded more regularly and for longer durations once services are running for all current access rights. Therefore, any further growth to passenger numbers because of further access rights granted and services run would further exacerbate the current challenges the station faces in passenger flow and the consequential passenger experience. (see Appendix B)

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Lumo (Rochdale) Application

This application is for rights commencing December 2028 until December 2038 (more precise details are not contained within the accompanying Form P).

For each service, professional judgement has been applied when considering operational and performance impact outside the geographical scope of this project. To that end, it should be noted that all services proposed could conflict with services on other geographical routes, in addition to the comments below.

1N00 06.50 Euston to Rochdale
In our professional judgement, there are several conflicts with other trains outside the geographical scope of this project.

1N01 11.36 Euston to Rochdale
This train is caught by 9S65 (Pendolino) 11.40 London Euston to Glasgow Central approaching Milton Keynes - SRT time differentials (390 vs 80x-E).

1N02 14.36 Euston to Rochdale
This train is caught by 9S60 (Pendolino) 14.40 London Euston to Edinburgh approaching Milton Keynes - SRT time differentials (390 vs 80x-E).

1N03 21.02 Euston to Manchester Victoria
This train has minor conflict with 0K06 19.42 Wembley to Crewe EMD from Colwich onwards.

1N50 07.58 Rochdale to London Euston (arr. 10.57)
This train's path works south of Stafford to London Euston. However, please refer to table of paths regarding congestion.

1N51 10.58 Rochdale to London Euston (arr. 14.01)
This train conflicts with 1U30 12.13 Crewe to London Euston between Crewe and Colwich and 1Q27/1Q29 (Wednesdays only) 12.08 Crewe to Derby RTC (Fast Line Track Inspection Path) between Wembley Central and London Euston (arr. 14.00). In addition, there are four following services, 14.03, 14.06, 14.09 and 14.12 that would be impacted by a 14.01 arrival.

1N52 16.05 Rochdale to London Euston (arr. 19.32)
This train conflicts with 1M45 14.18 Shieldmuir to Daventry (strategic path owned by Network Rail) between Warrington area and Stafford. From Newbold Jn (north of Rugby) the train is routed via Northampton to Milton Keynes on the Slow Lines then Fast Lines to London Euston. Note the previous Fast Lines arrival is 19.27 and the following arrival is 19.36.

1N53 18.43 Rochdale to London Euston (arr. 21.41)
This train is in direct conflict with 1A78 19.29 Chester to London Euston between Crewe and London Euston arr. 21.40 and WSMR 1W95 18.08 Wrexham General to London Euston arr. 21.38 which are also subject to an application for running rights. In addition, with reference to Network Rail's Appendix C Fast Line Capacity Analysis of 05th February 2025 the preceding train "1A77 19.15 Manchester Piccadilly to London Euston is more than 3 minutes late at Watford Junction 67% of the time which is a high likelihood however this slot is lower risk south of Rugby than many of the others because it is larger and does not precede a group of flighted services on minimum headways.". This could impact 1N53 from Milton Keynes to London Euston.

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As stated above, a number of conflicts in the proposed schedules were identified both within and outside of the geographical scope of this study. Notwithstanding the previous comments, there is still a major issue of general congestion and removal of 'firebreaks' as identified by Network Rail, in this report.

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WSMR Application

Application is for 3 firm rights in each direction Mondays to Saturdays and Sundays and 1 contingent right Mondays to Saturdays and Sundays (services not specified), proposed commencement date is within the December 2026 timetable period until May 2033.

For each service, professional judgement has been applied when considering operational and performance impact outside the geographical scope of this project. To that end, it should be noted that all services proposed could have significant conflict with services on other geographical routes, which if not addressed will impede deliverability, primarily impacting presentation of services at Nuneaton joining WCML-S.

The consultant replicated as closely as possible the proposed WSMR services in their Timetabling software, using the data as supplied in the WSMR Form P of their application. It is accepted there are some slight anomalies in times, and these differences highlight both the need for the comprehensive detail throughout all their return paths between London Euston and Wrexham General, so that full compliance with all TPR and SRT details can be accurately assessed.

The application by WSMR needs to be reviewed over the complete routing between London Euston and Wrexham General, to assess the bid in greater detail for all services. This would assist in determining compliance with all published TPRs and SRTs, accompanied by clear documentation of any assumptions made in the compilation of the bid. As stated above, several major conflicts in the proposed schedules were identified both within and outside of the geographical scope of this study. Notwithstanding the previous comments, there is still a major risk of general congestion and removal of 'firebreaks' as identified by Network Rail, in this report. Again, it is repeated that WSMR would need to use Class 221 units with tilt operative to achieve the stated paths for which they have applied.

1W91 06.24 Wrexham General to London Euston (arr. 09.32)
This train conflicts with 1R25 07.03 Wrexham to London Euston via Chester between Nuneaton and Hanslope Jn. However, from Milton Keynes to London Euston it conflicts with 1R23 07.15 Manchester Piccadilly to London Euston and 1R24 07.07 Liverpool Lime Street to London Euston between Milton Keynes and London Euston (1W91 is pathed between both trains with an insufficient headway between both 1R23 and 1R24).

1W93 07.51 Wrexham General to London Euston (arr. 10.57)
The path from Nuneaton to London Euston meets TPRs. However, congestion with arrivals into London at 10.50, 10.54, **10.57**, 11.03, 11.06, 11.09, 11.12 and 11.17 leaves little scope for service recovery.

1W03 14.49 Wrexham General to London Euston (arr. 18.00)
This path conflicts with 1A58 15.43 Liverpool Lime Street to London Euston (arr. 18.04) between Rugby and Watford Jn. However, from Milton Keynes to London Euston it is additionally in conflict with 1M02 12.22 Stirling to London Euston (arr. 18.00) (Lumo Stirling Service).

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1W95 18.08 Wrexham General to London Euston (arr. 21.38)

This path conflicts with 1A77 19.15 Manchester Piccadilly to London Euston between Nuneaton and Milton Keynes and the Avanti bid of 1A78 19.29 Chester to London Euston between Rugby and London Euston and in addition the Lumo bid 1N53 18.43 Rochdale to London Euston between Rugby and London Euston. Also, with reference to Network Rail's Appendix C Fast Line Capacity Analysis of 05th February 2025 the preceding train "1A77 19.15 Manchester Piccadilly to London Euston is more than 3 minutes late at Watford Junction 67% of the time which is a high likelihood however this slot is lower risk south of Rugby than many of the others because it is larger and does not precede a group of flighted services on minimum headways.". As the 1A77 calls at Milton Keynes and the proposed 1W95 also calls at Milton Keynes on the minimum compliant 3 minute platform occupation, the stated punctuality of 1A77 being 3 or more minutes late the majority of the time would impact on the proposed 1W95 between Milton Keynes and London Euston. In addition of the performance of 1W95 is impacted, then at Ledburn Jn, the 1Y68 19.36 Birmingham New Street to London Euston crosses Up Slow to Up Fast 6 minutes behind the proposed 1A78 and would be also impacted by performance issues on 1A77/1W95. Also note, at 21.20½ 1Y75 20.56 London Euston to Birmingham New Street crosses Down Fast to Down Slow at Ledburn Jn, which could also be impacted by late running of 1W95.

1W90 07.02 London Euston to Wrexham General

This path is OK to Nuneaton.

1W00 11.36 London Euston to Wrexham General

This path is OK to Nuneaton if Class 221T (not Class 222).

1W92 14.36 London Euston to Wrexham General

This path is OK to Rugby if Class 221T (not Class 222), however, the path conflicts with 4M52 11.15 London Gateway to Ditton between Brinklow and Nuneaton.

1W94 19.36 London Euston to Wrexham General

This path is OK to Milton Keynes if Class 221T (not Class 222), however, there is no path between Milton Keynes to Nuneaton as it conflicts with 1P04 19.19 London Euston to Preston (Lumo Stirling) and between Brinklow and Nuneaton with 4E55/4M24.

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Avanti Applications

35th Supplemental Application

Application for 1 contingent right to run from 17 May 2026 until 12 December 2026

1A70 19.55 (Sun) Crewe to London Euston
This is the extension of 1K70 17.53 (Sun) Holyhead - Crewe existing service which does have firm rights to run. It should be noted that Avanti has applied for only a contingent right to the extension of this train calling at Stafford and Milton Keynes Central.
Having reviewed the application and capacity of the WCML-S, it is our professional opinion that this can be granted the contingent right, as applied for, to run until 12th December 2026.

36th Supplemental Application

It should be made clear from the outset that the following 4 services and a further 2 consequential services are not included in this application and will be the subject of later correspondence. They are directly affected by a lack of overhead power supply between Crewe and Weaver Junction, which is outside the scope of this study.
These trains are: -
1F15 09.07 London Euston to Liverpool Lime Street
1A37 12.08 Liverpool Lime Street to London Euston (consequential)
1F21 12.07 London Euston to Liverpool Lime Street
1A55 15.08 Liverpool Lime Street to London Euston
1F25 14.07 London Euston to Liverpool Lime Street
1A67 17.08 Liverpool Lime Street to London Euston (consequential)

The undernoted 36th Supplemental Application is for rights to be converted from contingent to firm from 17 May 2026 until 14 December 2030

Weekdays
Northbound
1F13 08.07 London Euston to Liverpool Lime Street
1F17 10.07 London Euston to Liverpool Lime Street
1F19 11.07 London Euston to Liverpool Lime Street
1F23 13.07 London Euston to Liverpool Lime Street
1F27 15.07 London Euston to Liverpool Lime Street
1F29 16.07 London Euston to Liverpool Lime Street
1F31 17.07 London Euston to Liverpool Lime Street
1F33 18.07 London Euston to Liverpool Lime Street
1F37 20.07 London Euston to Liverpool Lime Street

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Southbound
1R24 07.07 Liverpool Lime Street to London Euston (arr. 09.34)
1A13 08.07 Liverpool Lime Street to London Euston (arr. 10.30)
1A19 09.08 Liverpool Lime Street to London Euston (arr. 11.30)
1A31 11.08 Liverpool Lime Street to London Euston (arr. 13.30)
1A43 13.08 Liverpool Lime Street to London Euston (arr. 15.30)
1A49 14.08 Liverpool Lime Street to London Euston (arr. 16.31)
1A61 16.08 Liverpool Lime Street to London Euston (arr. 18.31)
1A73 18.08 Liverpool Lime Street to London Euston (arr. 20.30)

Saturdays
Northbound
1F13 08.07 London Euston to Liverpool Lime Street
1F15 09.07 London Euston to Liverpool Lime Street
1F17 10.07 London Euston to Liverpool Lime Street
1F19 11.07 London Euston to Liverpool Lime Street
1F21 12.07 London Euston to Liverpool Lime Street
1F23 13.07 London Euston to Liverpool Lime Street
1F25 14.07 London Euston to Liverpool Lime Street
1F27 15.07 London Euston to Liverpool Lime Street
1F29 16.07 London Euston to Liverpool Lime Street
1F31 17.07 London Euston to Liverpool Lime Street
1F33 18.07 London Euston to Liverpool Lime Street

Southbound
1A15 07.09 Liverpool Lime Street to London Euston (arr. 09.30)
1A21 08.04 Liverpool Lime Street to London Euston (arr. 10.30)
1A27 09.05 Liverpool Lime Street to London Euston (arr. 11.30)
1A33 10.08 Liverpool Lime Street to London Euston (arr. 12.30)
1A39 11.08 Liverpool Lime Street to London Euston (arr. 13.30)
1A45 12.08 Liverpool Lime Street to London Euston (arr. 14.30)
1A51 13.08 Liverpool Lime Street to London Euston (arr. 15.30)
1A57 14.08 Liverpool Lime Street to London Euston (arr. 16.31)
1A63 15.08 Liverpool Lime Street to London Euston (arr. 17.30)
1A69 16.08 Liverpool Lime Street to London Euston (arr. 18.30)
1A75 17.08 Liverpool Lime Street to London Euston (arr. 19.30)

Sundays
Northbound
1F25 14.06 London Euston to Liverpool Lime Street
1F29 16.06 London Euston to Liverpool Lime Street
1F31 17.06 London Euston to Liverpool Lime Street
1F33 18.06 London Euston to Liverpool Lime Street
1F35 19.06 London Euston to Liverpool Lime Street

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Southbound
1A41 14.08 Liverpool Lime Street to London Euston (arr. 16.31)
1A47 15.08 Liverpool Lime Street to London Euston (arr. 17.31) (was 1A44)
1A53 16.08 Liverpool Lime Street to London Euston (arr. 18.31)
1A60 17.08 Liverpool Lime Street to London Euston (arr. 19.31)

As previously commented by the ORR in their 2nd Supplemental Decision Letter dated 9th October 2023, there were two major reasons for Network Rail's unwillingness to support said Supplemental. The first being the issue of platform availability at London Euston with respect to closures of platforms for HS2 related upgrade works. The other being overhead electrical traction supply at various locations including Bushey and Crewe to Weaver Junction (the latter being outside of the geographical scope of this study). Network Rail had indicated that they would not be willing to grant additional firm rights until this work had been completed. No significant progress has been made in either area, with no published completion dates for this work, with only an indicative date of "2031 at the earliest".

39th Supplemental Application

Application for Firm Rights for the listed services to run from 17 May 2026 to 14 December 2030.

1P92 09.40 (Mon-Fri) / 09.36 (Sat) London Euston to Blackpool North
This train is preceded by a slower LNR service, the 09.23 1Y23 London Euston to Birmingham New Street calling at Watford Jn and crossing from Down Fast to Down Slow at Ledburn Jn. This is in turn followed after Watford Jn close to minimum compliant headway by 1S48 09.30 London Euston to Glasgow Central Class 390, 1H64 09.33 London Euston to Manchester Piccadilly Class 390, 9S55 09.36 (Mon - Fri) 09.40 (Sat) London Euston to Glasgow Central via Birmingham New Street. Followed by 1F16 09.43 London Euston to Liverpool Lime Street, 1U29 09.46 London Euston to Crewe.

This could leave little scope for recovery if any performance issues with the insertion of a 09.40 departure, as there would then be 7 trains between Watford Jn and Ledburn Jn running at or close to minimum headway. As previously stated, there is also a specific rule in the TPRs that following a train crossing Down Fast to Down Slow at Ledburn Jn, the next train remaining on the Down Fast headway is permitted to be 2½ minutes, although the ruling headway on the Down Fast line is 3 minutes between successive trains. This increased flight of 7 trains is headed by 1Y23 as listed above, which has the potentially difficult combination of the Watford Jn and the crossing movement at Ledburn Jn to the Down Slow Line. If for any reason this vital crossing movement is delayed, there will be a 'snowball effect' which will delay the 6 following services. In the professional opinion of the consultant, this could represent a risk to performance with subsequent trains and certainly cause the xx.30 London Euston to Glasgow Central service to receive a potential series of restrictive aspects approaching Ledburn Junction.

It is recommended that this item should be revisited and reviewed to ensure that this junction margin and its impact on headway is sufficient as it forms part of a very critical flight of successive trains at or close to minimum headway.

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Anecdotal evidence suggests that the following service namely the xx.30 train from London Euston to Glasgow does observe restrictive signal aspects on the approach to Ledburn Junction behind the xx.23 LNR 'crossing' service.
It should also be noted that the 1P92 is planned to be formed of a Class 80x-E, although referring to the platform arrangements at London Euston (platform 13), it is unclear regarding the rolling stock's inward working to form this service. A Class 80x-E unit has an inferior performance capability than a tilting Class 390, as referenced in Network Rail's Appendix C Fast Line Capacity Analysis of 05th February 2025, it should be noted that the preceding 1H64 09.33 London Euston to Manchester Piccadilly is more than 3 minutes late by Rugby 43% of the time.

It is to be noted that under the previous timetable (commonly known as 'the VHF timetable'), that was in operation prior to December 2022, the xx.23 departure from London Euston also called at Watford Junction but was formed of a Class 390 Pendolino type of train and after Watford Junction, the next station call was Coventry and so no crossing movement was required. On the WCML-S route the most difficult call to achieve is that at Watford Junction when on the Fast Lines as any following services have no ability to overtake or use a different platform as opposed to either of Milton Keynes Central or Rugby.
This issue is particularly worthy of this comment as all three Operating Companies making applications do utilise the xx.36 departure slot from London Euston in differing hours.

1A92 12.52 (Mon-Sat) Blackpool North to London Euston (arr. 16.00)
With reference to Network Rail's Appendix C Fast Line Capacity Analysis of 05th February 2025 the preceding train 9A53 (now 9M53) is more than 3 minutes late at Watford Junction 41% of the time. This indicates the number of occasions when filling this slot would result reactionary delay flowing to 1A46 13.43 Liverpool Lime Street to London Euston (arr. 16.05). 9M53 arrives London Euston 15.40, followed by 1A43 13.35 Manchester Piccadilly to London Euston arriving 15.43, 1Y44 13.36 Birmingham New Street to London Euston arriving 15.49 (calling at Watford Jn), 1B46 14.21 Birmingham New Street to London Euston arriving 15.54 (calling at Watford Jn), then 1A92 arriving 16.00, then there are 5 successive train following at minimum headway 1A46 13.43 Liverpool Lime Street to London Euston arriving 16.05, 1B47 14.47 Birmingham New Street to London Euston arriving 16.08, 1A47 13.55 Manchester Piccadilly to London Euston arriving 16.11, 1M12 11.36 Glasgow Central to London Euston arriving 16.14, 1Y46 14.06 Birmingham New Street to London Euston arriving 16.17.

There are 3 empty stock services from the Camden area into London Euston that form part of the Down evening peak services from London Euston (15.46, 16.00, 16.05), these do restrict certain approach routings into London Euston.

Furthermore, it is suggested that the unit working 1A92 from Blackpool arrives at 16.00 into platform 5 and is then shown to proceed ECS to Euston Up Carriage Sidings at 16.20 (after the train has been cleared of passengers and luggage, checked and locked). Platform 5 is re-occupied at 16.24 by 1U34 14.13 Crewe to London Euston arrival with subsequent fast line arrivals at 16.28, 16.31, 16.37, 16.40 and 16.42, potentially leading to congestion on the fast line arrivals at crucial time of day.

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1A78 19.29 (Mon-Fri) from Chester (Avanti) arriving 21.40

Note, there are also bids by Lumo (Rochdale) 1N53 18.43 Rochdale to London Euston arr. 21.41 and WSMR 1W95 18.08 Wrexham General to London Euston arr. 21.38 for a similar path.
In addition, with reference to Network Rail's Appendix C Fast Line Capacity Analysis of 05th February 2025 the preceding train "1A77 19.15 Manchester Piccadilly to London Euston (calling at Stoke-on-Trent, Nuneaton, Rugby and Milton Keynes) is more than 3 minutes late at Watford Junction 67% of the time, which is a high likelihood, however this slot is lower risk south of Rugby than many of the others because it is larger and does not precede a group of flighted services on minimum headways.".

As the 1A77 calls at Milton Keynes and the proposed 1A78 also calls at Milton Keynes on the minimum compliant 3-minute platform occupation, the stated punctuality of 1A77 being 3 or more minutes late the majority of the time would impact on the proposed 1A78 between Milton Keynes and London Euston. In addition, if the performance of 1A78 is impacted, then at Ledburn Jn, the 1Y68 19.36 Birmingham New Street to London Euston crosses from the Up Slow to Up Fast 6 minutes behind the proposed 1A78 at 21.20 and would be also be impacted by performance issues on 1A77/1A78.
Also note, at 21.20½ 1Y75 20.56 London Euston to Birmingham New Street crosses from the Down Fast to Down Slow at Ledburn Jn, which could also be impacted by late running of 1A78.

In our professional judgement, 1A78 19.29 Chester to London Euston can be granted firm rights as far Crewe only. This would enable passengers to connect into the wider Avanti operations and offer connections for Stafford, Milton Keynes Central and London Euston. It was stated by Avanti (within their Form P application) that if rights were not granted the train would be required to run as a fully crewed Empty Stock Train (ECS) for stock balancing purposes. By not granting firm rights for this service beyond Crewe to London Euston, this does offer Avanti a potential re-diagramming of resources to remove such a long-distance ECS movement in future.

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7. Lumo Application for New Rolling Stock – London Euston / Stirling services

In addition to the various right applications, Lumo also made an additional application for new build rolling stock to operate between London Euston and Stirling, with the respective Form P of said application being signed on 28th October 2025.

These new build Battery/Overhead Electric Bi-Mode Units, to be assembled by Hitachi at Newton Aycliffe, would have the performance capabilities of a Class 80x and would replace the diesel Class 222 units which are currently planned to operate this service.

This application has also requested that the London Euston to Stirling rights for operation are extended from the current May 2030 to the end of 2038. It should be noted that the Lumo London Euston to Rochdale application is stated as commencing December 2028 to December 2038. It could be assumed that a larger quantity of units could be assembled and cover both Lumo operations between London Euston and Stirling / Rochdale, to benefit from economies of scale.

From an operational viewpoint, replacing the Class 222 diesel units with Class 80x bi-mode traction, it should be anticipated that these would deliver an improvement to the use of track capacity, over such a long distance, (see Appendix E).

Despite the potential improvements from changing the unit type, this would not deflect away from matters such as route and platform congestion on WCML-S. The variance in performance capability between Class 390 Avanti Pendolino and Class 80x-E will still impact on timetable construction.

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8. Other Contributary Factors (outside of the Geographical Scope)

- Crewe - Weaver Jn Power Supply (rectification 2031 at the earliest). Although PRA has been instructed in the ITT remit not to include overhead power supply in this study, it is felt that this is an important contributary issue to ORR's overall decision.
- WSMR Train Planning Rules (TPR) Compliance
    - Reduction of the current SRTs' duration (i.e. speed increases) between Park Lane Junction - Ryecroft (not currently planned in the Network Rail work bank) but WSMR appear to have assumed that this is possible in their application.
- Wrexham to Nuneaton - these trains pass through numerous performance hot-spots including Shrewsbury, Wolverhampton, Walsall and Water Orton. Any delays on southbound services would result in late presentation at Nuneaton and subsequent loss of path on WCML South.
- Nuneaton to Wrexham - northbound trains again pass through the same points of congestion and could also affect the long signalling block section between Gobowen and Wrexham General.
    - WSMR and Network Rail are required to work together to produce compliant and resilient paths between Nuneaton and Wrexham General before any further consideration can be given to this application. As opposed to other applications the full detail of each train schedule is not visible via a single train print on the application (often referred to as an 'F3' print) which would give relevant detail for further scrutiny.
- Manchester Victoria platform capacity (Lumo Rochdale services).
- TRU (TransPennine Route Upgrade) Diversions over Calder Valley until post 2030 (Lumo Rochdale services).
- Manchester Area congestion (Lumo Rochdale services), paths in conflict with other existing operators (notable Ordsall Lane Jn).
- Birmingham New Street congestion, where southbound departures are from a conflicting platform.

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- Increased use of Electric Traction by Freight Operators, which is already contractually agreed, impacting on additional electric passenger trains (affects all existing and future operators).

    - Network Rail have already declared congested infrastructure for electric traction in three areas, these being; Acton Lane (Willesden / Wembley area), Darlaston (West Mids) and Crewe - Weaver Jn as stated in the letter from Network Rail dated 25th April 2025 from Paul Harris NR to Alice Kaiser of ORR. (see Appendix B).
    - On 9 July 2024. Network Rail issued, "Early Indicator of Likely Congestion" notices in relation to the following sections of the Northwest & Central network:
        - Acton Lane feeding area
        - Washwood Heath / Willenhall feeding area
        - Crewe / Weaver feeding area

    - These Early Warning Indicator notices related to the impact of capability constraints on known or likely applications for electric traction capacity. Having updated the power supply modelling as part of the May 25 onwards applications, Network Rail still has concerns in these areas.

    - In addition to these Early Warning Indicator notices being issued, Network Rail has since made a Declaration of Congested Infrastructure at both the Crewe/Weaver feeding area and Willenhall feeding areas. The Early Indicator of Likely Congestion for both Washwood Heath, Crewe and Acton Lane also remained in place, and these were notified to ORR and Industry Colleagues on 26 November 2025. (see Appendix D)

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9. Conclusions and Recommendations

Conclusions and recommendations summary table, from an operational perspective only, are shown below with detailed explanations underneath the table.

Application	Requested Rights / Change	Key Issues Identified	Principal Performance / Capacity Concern	Recommendation
Avanti 35th Supplemental	1 contingent Sunday Crewe - London Euston extension	Limited additional conflicts identified within study area	Relatively limited incremental impact compared with other applications	Grant contingent rights as requested until Dec 2026
Avanti 36th Supplemental	Conversion of multiple Liverpool services from contingent to firm rights	Existing Euston platform constraints; WCML-S congestion; unresolved infrastructure constraints	Existing resilience and performance levels insufficient to support additional firm rights	Do not grant firm rights at present
Avanti 39th Supplemental - Blackpool North	Firm rights for additional Blackpool North services	Dense flighting south of Watford Junction; reduced "firebreaks"; Ledburn Junction crossing sensitivity	Increased reactionary delay risk affecting closely flighted following services	Do not grant firm rights at present
Avanti 39th Supplemental - Chester (1A78)	Firm rights for 19:29 Chester - Euston service	Conflict risk with other proposed evening arrivals; sensitivity to preceding late-running services	Congestion and resilience concerns south of Crewe, particularly Milton Keynes-Euston	Grant firm rights Chester-Crewe only
Lumo (Rochdale)	New Rochdale / Manchester Victoria open access services	Multiple timetable conflicts; congestion impacts; performance concerns; wider off-scope route interactions	Loss of timetable resilience and increased WCML-S congestion	Do not grant rights at present

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WSMR	New Wrexham - Euston open access services	Multiple timetable conflicts; reliance on Class 221 tilt capability; incomplete timetable detail in application	Significant resilience and pathing concerns both within and outside study area	Do not grant rights at present
Lumo (Stirling) Rolling Stock Proposal	Replace Class 222 units with Class 80x bi-mode units and extend rights to 2038	Improved rolling stock performance acknowledged, but wider WCML performance concerns remain	Improved capacity utilisation possible, but insufficient evidence of wider network resilience improvement	Support rolling stock change from an operational standpoint

- The low levels of actual performance were taken from the Network Rail letter A. Bhandari / S. Cox of ORR of 21st April 2026 regarding the Avanti Application for the 39th Supplemental (Blackpool & Chester services) (see Appendix D). Many of these performance figures quoted for Avanti services were 50% or less at Right Time passing differing points of the WCML-S route and were based on the May 2025 Timetable and the December 2025 Timetable.

- It is recommended that Network Rail undertake a full review of the current operation on WCML South to improve performance, bringing it closer in line with national levels and remitted ORR target levels. (see PR23 final determination: Summary of conclusions and overview for England & Wales of 31 October 2023, pages 7 and 8).

  Suggested areas of focus are:

  - A more granular investigation of sub-threshold delays to fully understand the root cause of such delays, allowing mitigation to be taken. This will assist in preventing other services being impacted on the route and reduce the effect on other routes.
  - Any effects generated by the actual running of the London Euston - Stirling services of Lumo using Class 222 diesel units can then be measured for their effects on performance more clearly than a simple prediction which is all that is available at present.
  - Sectional Running Times (SRTs) for Class 80x units could be subject to verification by Network Rail in the light of actual experience of these trains, notably when running at the "MU" differential speeds. Previously, Class 390 SRTs were reviewed after a period of actual experience of running in day-to-day passenger service, to verify for accuracy of the calculated SRTs and subsequent amendment where required.

- Upon reviewing all relevant evidence, it is concluded that further extra passenger services, which impact the WCML South should not be granted, from an operational viewpoint, in most cases, until a thorough performance review has taken place to better understand and resolve current factors of reduced performance. This would allow a more informed view of the respective applications to be taken.

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This should include careful review of the timetable in general to determine optimal use of available capacity. Options to be considered could include: -

- Amended flighting of services, taking note of the differing traction types and their respective performance characteristics, to optimise the use of available capacity, improving timetable resilience and thus generating an improvement to overall performance.
- Possible alteration of calling patterns but not altering overall quantum of services at any station.
- Using professional judgement, based on previous compilation of complex timetables, any train which carries particular operational constraints (such as slower maximum permitted speed, coupled with a Watford Jn station call and combined with a crossing movement at Ledburn Jn) should not lead a flight of services departing London Euston, running at or close to minimum headways. Effective flighting is not necessarily about the number of successive trains grouped together, but the placement of particularly limiting trains at end of a flow and not at the start. This results in the optimal use of the available track capacity. Trains should commence with the furthest station call as the first in a flight followed by the next furthest station stop, carefully noting the traction type and both its performance characteristics and its required stopping pattern. Similarly, the opposite applies when looking at southbound services approaching London Euston. The distribution of trains should feature the slower services initially in any grouping, with the faster trains and furthest final station calls at the end of the flight, to enable their better performance to be utilised and offer the most effective journey times and optimal use of track capacity. A potential order of departures from London Euston could be formed of 390, 390, 80x-E, 80x-E, 222, 350-110 coupled with a suitable, flighted calling pattern to give optimal use of available track capacity.

- The power supply issues, which are out of scope of this study as stated by ORR, are still a relevant factor in relation to the overall situation. Three locations are mentioned in various correspondence: -
  - Acton Lane (raised by Network Rail)
  - Bushey area (raised by Avanti)
  - Crewe - Weaver Jn (raised by Network Rail)
- These power supply upgrades were previously timetabled for delivery, in some cases by 2025. However, this work was not completed and there is currently no confirmed completion date for such a workstream. It is recommended that Network Rail should be remitted to programme these works and provide firm delivery timescales.
- Platforming works at London Euston were similarly timetabled for delivery, thus enabling more capacity at the terminal station itself, but again these have not been completed so again affect the overall capacity of the route. Again, it is recommended that Network Rail should be remitted to programme these works and to provide firm timescales for completion.

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- Extracts from the 36th Supplemental Form P from Avanati as part of their rights application, Section 3. These in turn were taken from the ORR letter of 2nd Supplemental decision letter of 9th October 2023.

  "…there were two major reasons for Network Rail's unwillingness to support the 2nd Supplemental: firstly, the issue of platform availability at London Euston in the light of the closures of platforms for HS2-related upgrade work."

  "Since the application was submitted, there have been significant delays to the delivery of platforming and electrical upgrade work. Network Rail has not given a timescale for either project but at the same time, it has not changed its position on AWC's application, stating that there is too much uncertainty around when the Euston and Bushey works will commence and be completed to agree to any of AWC's services at this stage."

- It is concluded that all the evidence from Network Rail is consistent and comprehensive across the various correspondence examined from various sources at differing times. Whilst all these statements were compiled against previous timetables, including the December 2022 CTP, they follow a common theme that requires minimal alteration when compared against the May 2026 working timetable.

- In our professional opinion, re-examination by Network Rail of the specific rule stated in the applicable Train Planning Rules (TPRs) (v4.0 of 2026 rules as published by Network Rail on 11th July 2025) that following a train crossing Down Fast Lines to Down Slow Lines at Ledburn Jn, the next train remaining on the Down Fast Line headway can be 2.5 minutes, although the ruling headway on the Down Fast Lines is 3-minutes. The diverging speed from the Down Fast Line to the Down Slow Line is 60 mph, meaning the train must slow to use this crossover, meaning the following train running at Enhanced Passenger Speed (EPS) of up to 125 mph will be narrowing the gap between successive trains. The signalling system in use in this area is fitted with an 'flashing aspect' for trains crossing from the Down Fast Line to the Down Slow Line.

  "A flashing signal aspect is defined as a normal caution aspect or preliminary caution aspect displayed by a colour light signal, which is then made to flash to give prior warning of the diverging route through a junction. It is used where approach speeds are high and the speed through the diverging route at the junction is also high. (reference: Ellis' British Railway Engineering Encyclopaedia, version 4.0)"

  It should be noted that the headway between successive trains on the Fast Lines in operation on this section of the route is 3-minutes yet the junction margin between a diverging first train and the directly routed second train is only 2.5 minutes. This signalled route can only be cancelled once the diverging train has cleared the Down Slow Line and only then can the signaller reset the points at the junction and then clear the signals for the directly routed following train on the Down Fast Line. There is a likelihood that the second train will sight and encounter adverse signal aspects which would cause a reduction in speed, given that it will be 5 signals prior that the second train would receive a green aspect prior to the junction. When combined with a Watford Jn call,

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impacting the distance between the two trains and the successive junction manoeuvre, as detailed above, has the potential to delay a number of services.

- With respect to the Applications for additional services from various operators (as referenced in Section 6 - Project Findings and Issues and Section 8 - Other Contributary Factors (outside of the Geographical Scope) of this report), from an operational viewpoint only it is recommended that: -

    - Avanti 35th Supplemental is granted as the requested contingent right between Crewe and London Euston.
    - Avanti 36th Supplemental is not granted firm rights at present for all requested services.
    - Avanti 39th Supplemental is not granted firm rights at present for the Blackpool North services. However, firm rights can be granted for the 1A78 19.29 Chester to Euston but only between Chester and Crewe. (see commentary on page 23)
    - Lumo (Rochdale) is not granted any rights at present for all requested services.
    - WSMR is not granted any rights at present for all requested services.

- It is recommended that future applications consider the proposed type of rolling stock (as stated on the Form P) and station calling patterns more closely to better understand any subsequent effects on route capacity and performance particularly on intensively used routes. Different rolling stock types have different characteristics, notably that of acceleration and attainable speeds. Previously experiences have shown that on similar routes to WCML-S a typical station call on route takes approximately 4 minutes (including station dwell time) with its resultant effects on route capacity (see Appendix E to assist comparison).

- The application from Lumo (Stirling) to replace the existing Class 222 diesel units, and for those to be replaced by higher performing Class 80x Bi-Mode battery and overhead electric units is welcomed. This will bring an improvement to the overall use of capacity over the entire WCML route, but the extension of rights to 2038 as requested, cannot be considered until an improvement in WCML performance overall occurs.

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10. Glossary of Terms and Abbreviations.

Dwell Time: The period of time during which a passenger train is stopped at a station for passengers to alight and board.

Headway: Minimum time interval that is needed between successive trains travelling in the same direction on the same line.

Sectional Running Times (SRT): The allowance of time given to a particular train between two points. This value is used to compile the timetable, and is dependent on the type of train used

Train Planning Rules (TPR): Rules set by Network Rail for planning train services: these Rules include instructions as to the amount of Headway, Dwell time, Platform Re-occupation, Line Geography and Junction margins to be used on the services planned.

Up direction: Trains travelling in a generally Southbound direction.

Down direction: Trains travelling in a generally Northbound direction.

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11. Resources used for this report.

Train Planning Rules: North Western and Central 2026 timetable version 4.0

Working Timetable Data: As supplied by Network Rail for May 2026

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Appendix A - Theoretical Fast Line Paths at London Euston. Firebreaks and performance on the WCML ('WCML')

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[redacted]
Managing Director, NW&C Region
and Director, Capacity Planning
Network Rail Infrastructure Ltd
1 Eversholt Street
London
NW1 2DN

4 February 2026

Dear [redacted]

Firebreaks and performance on the West Coast Main Line ('WCML')

This letter is being sent in response to ORR's request of 20th January 2026 for further information from Network Rail on access to the West Coast Main Line, specifically at the south end on the fast lines.

Pre-December 2025 timetable introduction

1. ***Please set out your assessment of using one or more of the 9 firebreak paths (in each direction) using punctuality, reliability, primary and reactionary delay metrics. Please provide the same for the 07.00 Manchester to London path used by Avanti.***

In Network Rail's letter to ORR dated 07 February 2025 (*'Network Rail representations for applications affecting the West Coast Main Line (South))'* a supporting timetable capacity assessment was provided which identified further pathing opportunities in the structure of the WCML fast lines timetable between Rugby and Euston. The assessment was based on the December 2024 (SX) timetable and indicated that a theoretical 9 additional Up direction paths and 9 additional Down direction paths existed on the fast lines after the inclusion of First Rail Stirling's proposed Euston-Stirling services and the additional Avanti Euston-Liverpool services which were expected to run from December 2025. This figure of 9 paths in each direction consisted of a combination of paths identified in the December 2022 Concept Train Plan ('CTP') - but were at the time either not yet running or not supported with any access rights, in addition to a number of new theoretical paths which have been identified by prospective new operators and pathed into the structural 'firebreak' gaps which then existed in the WCML timetable. This distinction is important to note because the structural firebreak gaps that featured in the December 2022 CTP would have formed part of the baseline assumptions in the performance modelling undertaken and endorsed by the cross-industry Event Steering Group ('ESG'), noting that the 07:00 Manchester-Euston path formed part of the baseline December 2022 CTP and was therefore factored into associated modelling and conclusions.

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Table 1 below shows an updated version of the summary table previously included in Network Rail's 07 February 2025 representations, and highlights which of the 9 paths (in each direction) had been included in the December 2022 CTP and therefore formed part of the ESG's baseline performance modelling assumptions, as these services were all expected to operate. The December 2022 CTP paths represent 4 out of the 9 paths in the Up direction (including the 07:00 MAN-EUS path) and 3 out of the 9 paths in the Down direction. The ESG performance modelling report from 2022, which included total delay minutes and punctuality impact (T1/T3) data, has been attached as Appendix A to this letter.

Theoretical Fast Line paths at Euston (Dec 2025 timetable, 06:00-22:00 SX)					
Up	**In CTP?**	**Notes**	**Down**	**In CTP?**	**Notes**
08:58	Yes	Currently used by 07:00 MAN-EUS (as allocated in CTP)	06:02	Yes	Allocated to 06:02 EUS-BPN in CTP (not yet run)
10:58	No		08:20/36	No	
12:58	Yes	Allocated to 09:45 BPN-EUS in CTP (not yet run)	09:20/36	Yes	Allocated to 09:20 EUS-BPN in CTP (bid for May 26)
15:58	Yes	Allocated to 12:52 BPN-EUS in CTP, bid for May 26	11:20/36	No	
16:58	No		12:20/36	No	
18:58	No		14:20/36	No	
20:58	No		17:36	Yes	Currently used by 17:36 EUS-BPN (as per CTP)
21:43	Yes	Allocated to 19:32 CHE-EUS in CTP, bid for May 2026	18:36	No	
21:58	No		19:20	No	

Table 1. Additional WCML Fast Line paths; both planned (Dec 2022 CTP) and theoretical

Network Rail provided robust performance evidence in its representations dated 07 February 2025 and 25 April 2025, based on a combination of December 2022 ESG performance modelling (including sensitivity tests) alongside data on current WCML performance. The 25 April 2025 letter sets out relevant performance information in the 'WCML Performance – London Euston to Rugby' section and confirmed that Network Rail does not support any additional WCML South applications seeking to utilise additional capacity on the fast lines, as this would have a significant detrimental impact to performance. The current quantum of services, combined with the realities of operating a mixed traffic railway, already have significant performance challenges and contribute to delivering performance at a level below expected levels.

The performance modelling undertaken by the December 2022 ESG did include the Euston-Stirling paths in the analysis (operating in the xx.20/36 and xx.58 paths subsequently sought by other operators in other hours) but the modelling outputs were based on a full 06:00-22:00 (SX) period, rather than hour by hour comparisons. Nonetheless, a sensitivity test to assess the relative impact on performance of removing the 5 Euston-Stirling paths (in each direction) from the timetable was undertaken as part of the modelling, which quantified the specific impact of having the xx.20/36 and xx.58 Euston-Stirling paths in the 5 planned hours. This showed a relative impact of reducing total delay minutes by 100 minutes and 11 seconds if all 5 services in each direction were removed.

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Data that is specific to the performance of the 07:00 Manchester-Euston service since December 2025 is included in response to the ORR's Question 5 below.

2. ***What was the modelled impact, including cumulative delay on later services, of including a train in each of the 9 firebreak paths (in each direction, up and down) referred to in the February 2025 representations?***

Further to the answer provided to Question 1 above, some of the 9 paths (in each direction) are either in operation or would have been factored into the December 2022 ESG performance analysis. The remaining 5 Up direction and 6 Down direction paths represented the firebreak gaps in the December 2022 CTP. Consideration of the relative performance risks from using these paths, based on the flighting of services within the current timetable structure, is set out below.

Up Direction

10:58 Arrival at London Euston (9-minute slot following 1B31 and preceding 1A16)

Making use of this arrival slot at London Euston requires a new service to follow 1B31 (09:21 Birmingham New St – London Euston) from Rugby. 1B31 is pathed to follow 1A15 (08:34 Manchester Piccadilly - London Euston) on minimum headways. There is a tightly spaced flighting of Up direction services south of Rugby on the fast lines in the timetable structure which means that utilising the 10.58 arrival slot would result in consecutive fast line arrivals at 10:54, 10:58, 11:03, 11:06, 11:09 and 11:12). Flighting an additional train in the firebreak path would therefore result in an increased risk of reactionary delay and causing on-time failures at London Euston.

16:58 Arrival at London Euston (9-minute slot following 1B49 and preceding 1A52)

This 16:58 timetable slot follows 1B49 (15:21 Birmingham New St – London Euston) and precedes a flight of five fast line services closely spaced within a 14 minute period (with arrivals at Euston following at 17:03, 17:06, 17:11, 17:14 and 17:17). Whilst this flighting broadly follows a similar pattern most of the day, train movements in the evening peak are more intense than other hours due to a high-priority Empty Coaching Stock ('ECS') move that is planned to then arrive at 17:21. This means that there is the flight of five services then a one-minute gap and this ECS movement. It is inevitable that any delay to 1A52 will ripple through the next 5 services arriving at Euston.

The firebreak in the timetable is therefore particularly important to maintain at this point. 1B49 is later than 3 minutes at Euston 50% of the time.

18:58 Arrival at London Euston (9-minute slot following 1B54 and preceding 1A64)

This 18:58 slot follows 4 minutes behind 1B54 (17:24 Birmingham New St – London Euston), it then precedes 1A64 (16:43 Liverpool Lime St – London Euston) which arrives after a 5 minute gap at 19:03, with subsequent fast line arrivals planned at 19:06, 19:11, 19:14 and 19:17. Utilising this 18:58 slot therefore removes the current 9 minute firebreak slot which precedes a closely spaced sequence of 4 services arriving. 1B54 is more than 3 minutes late at Euston 60% of the time, so having the additional recovery available in the pattern reduces the likelihood of reactionary delay impacting as many services as the previous examples.

20:58 Arrival at London Euston (9-minute slot following 9M86 and preceding 1A75)

Utilising the 20:58 firebreak slot would require a path following 9M86 (14:52 Edinburgh – London Euston) and result in a sequence of arrivals at Euston at 20:54, 20:58, 21:03, 21:06, 21:13 and

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21:17. The sequence isn't as tight in this hour due to the absence of the xx.09 Manchester arrival which usually operates in other hours.

21:58 Arrival at London Euston (11-minute slot following 9M59 and preceding 1A79)

The proposed 21:58 arrival slot would run 4-minutes behind 9M59 (15:57 Glasgow Central – London Euston) and 7 minutes in front of 1A79 (19:43 Liverpool Lime St – London Euston). In comparison to other hours, there is some recovery time within the following services to reduce the chance of reactionary delay impacting multiple services, meaning that collectively there is lower risk south of Rugby to using this slot from a performance perspective.

Down Direction

08:36 Departure from London Euston (3½-minute slot following 1H63 and preceding 9S54)

Filling in the slot behind 1H63 (08:33 London Euston – Manchester Piccadilly) effectively takes two separate three-train flights (1Y19, 1S45, 1H63 and 9S54, 1F14, 1U27) and would form them in to one continuous flight of seven services on, or close to minimum headways at points on the south end of the WCML. 1H63 is more than 3 minutes late at Rugby 50 % of the time and a contributing factor in that lateness is the punctuality of 1Y19 (08:23 London Euston – Birmingham New St) at the start of the initial flight at the point it crosses to the Slow Lines at Ledburn Jn.

11:36 Departure from London Euston (3½-minute slot following 1H66 and preceding 9S65)

Continuing the theme of creating long flights of services on minimum headway using this slot will also create a continuous flight of 7 services at or near minimum headway behind 1H66 (11:33 London Euston – Manchester Piccadilly) which is more than 3 minutes late 20 % of the time.

12:36 Departure from London Euston (3½-minute slot following 1H67 and preceding 9S70)

Due to the standard-pattern nature of the middle of the day, this slot again has very similar characteristics to the previous Down direction slots, in this case following 1H67 (12:33 London Euston – Manchester Piccadilly). Creation of a flight of 7 services at or near minimum headway places the services at the end of that sequence at significant risk of reactionary delay.

14:36 Departure from London Euston (3½-minute slot following 1H69 and preceding 9S80)

This slot has the same characteristics as the previous Down examples which all follow the xx.33 Euston – Manchester service, and therefore the same conclusions regarding the risks apply. In this particular hour the proposed service would follow behind 1H69 (14:33 London Euston – Manchester Piccadilly) which is 3 or more minutes late by Rugby 10 % of the time.

18:36 Departure from London Euston (7-minute slot following 1H73 and preceding 9K39)

In a similar way to the previous 17:36 example filling this firebreak will create a long sequence of trains at or near minimum headway on the Down Fast. In this case the slot itself is larger and the sequence created would be of ten services rather than eleven however with 1H73 (18:33 London Euston – Manchester Piccadilly) being 3 or more minutes late 40 % of the time by Rugby the challenges of successfully departing this sequence of trains through the throat at Euston on time by this stage in the evening peak are clearly illustrated. There would still be additional risk of reactionary delay by filling this slot although partly mitigated by having the second unfilled slot behind it.

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19:36 Departure from London Euston (3½-minute slot following 1H74 and preceding 9K42)

This slot returns to a similar pattern as 14:36 and earlier slots where a flight of 7 services on or near minimum headway would be created by filling it. 1H74 (19:33 London Euston – Manchester Piccadilly) is 3 or more minutes late by Rugby 40 % of the time so the chance of that reactionary delay occurring once the firebreak has been filled is significant.

3. ***Please provide your assessment of how the inclusion of a train in the 07.00 path differed from use of a 'firebreak' path according to punctuality, reliability, primary and reactionary delay measurements.***

As previously mentioned, the 07:00 Manchester-Euston path was included in the December 2022 CTP and therefore did not represent a firebreak path, as it was always expected to be utilised. The performance modelling undertaken to inform the December 2022 ESG factored this path into the baseline assumptions. Performance data to reflect how this service has been running since the December 2025 timetable change is included in answer to Question 5 below.

Within the current timetable, the 07:00 Manchester-Euston service follows 1R18, originating at Liverpool, into Euston on minimum headway from Watford. The service following the 07:00 Manchester path is not on minimum headway and therefore does not form part of a flight of services.

4. ***Please provide the modelling used to conclude that 9 firebreak paths was (and whether it continues to be) the optimum number. Please set out what consideration was given to the impact of operating services in some of these paths and the outcome of that.***

Further to the answer set out to Question 1, there were 5 firebreak gaps in the Up direction in the December 2022 CTP, and 6 firebreak gaps in the Down direction. The other paths highlighted in Network Rail's representations of 07 February 2025 were all paths forming part of the December 2022 CTP, of which some have subsequently commenced operating. Also as set out in Network Rail's representations letter of 07 February 2025, the conclusions from the detailed performance modelling undertaken to support the December 2022 ESG (including sensitivity tests) indicate that the quantum of fast line services contained in the December 2022 CTP represented a critical threshold level in terms of manageable capacity utilisation, beyond which the introduction of any further services was likely to trigger a disproportionate compromise to network performance through increased reactionary delay.

This can clearly be seen in the performance extract in Table 2, which shows that the impact of adding the 13th and 14th fast line paths each hour ('Additional identified flows') to the fast lines timetable structure results in a clear performance deterioration (both in terms of T1 and T3 metrics), with a risk highlighted to the Up Fast Line (between Rugby and Euston) due to the flighting of services.

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Metric	Operator	Dec-19		Dec-22 Difference to Dec 19			
				Full Timetable		Without Additional Identified Flows	
		T-1	T-3	T-1	T-3	T-1	T-3
All Stations	Overall	76.0%	91.1%	5.3%	1.2%	7.7%	2.4%
	Avanti West Coast	66.2%	84.7%	3.6%	0.5%	11.6%	5.6%
	West Midlands Trains	75.2%	92.3%	9.5%	2.1%	10.6%	2.7%
	Cross Country	66.2%	88.1%	10.3%	2.3%	13.7%	2.3%
Up Euston Arrival	Overall	67.2%	85.9%	0.4%	0.5%	8.9%	3.6%
	Avanti West Coast	66.8%	81.6%	-5.2%	-0.1%	6.3%	3.6%
	West Midlands Trains	68.9%	90.1%	6.0%	-1.7%	8.9%	0.3%
	Arriva Rail London	66.7%	88.6%	14.4%	4.1%	14.6%	4.1%

Table 2. December 2022 CTP performance modelling outputs and threshold levels

A copy of the RailSys modelling '*WCML South Operational Modelling for IPG Dec 22*' is attached as Appendix A to this letter.

The timetable modelling completed for the December 2022 ESG continues to be valid as, the WCML South timetable structure remains aligned with the structure of the December 2022 CTP. The outputs and conclusions from the ESG modelling remain valid whilst that timetable structure is in place.

Post-December 2025 timetable introduction

5. Please provide your performance assessment of the 07.00 using punctuality, reliability, primary and reactionary delay metrics (as of 11 February 2026) since the December 2025 timetable introduction.

Figure 1 below shows the lateness profile of 1R19 (07:00 MAN-EUS) from the start of the December 2025 timetable to 27 January 2026. On average over this period this service originates 0.3 mins late and terminates 6.7 minutes late, due to losing time at multiple locations across the route - most notably when passing Ledburn Jn.

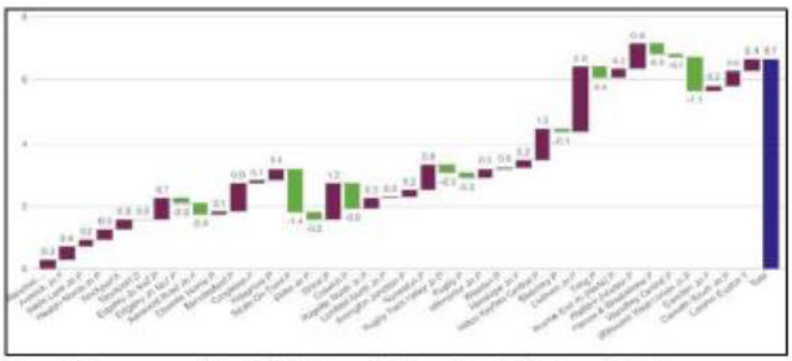


Figure 1. Lateness profile of 1R19 since the December 2025 timetable change

1R19 has 3 scheduled stops on its journey (Manchester, Stockport and Euston) so T3 is only recorded at those places. Figure 2 provides a summary of the number of occasions that 1R19 has been a T-3 failure since the December 2025 timetable change. At Manchester 1R19 has been a T3 failure on one day in this period, Stockport a failure on 3 days and Euston a failure on 11 days.

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Date	Manchester	Stockport	Euston
15/12/2025	100.00%	100.00%	0.00%
16/12/2025	100.00%	0.00%	100.00%
17/12/2025	100.00%	100.00%	0.00%
18/12/2025	100.00%	100.00%	100.00%
06/01/2026	100.00%	100.00%	0.00%
07/01/2026	0.00%	0.00%	0.00%
08/01/2026	100.00%	100.00%	100.00%
12/01/2026	100.00%	100.00%	100.00%
13/01/2026	100.00%	100.00%	0.00%
14/01/2026	100.00%	100.00%	0.00%
15/01/2026	100.00%	100.00%	0.00%
16/01/2026	100.00%	100.00%	100.00%
19/01/2026	100.00%	100.00%	0.00%
20/01/2026	100.00%	0.00%	100.00%
21/01/2026	100.00%	100.00%	100.00%
22/01/2026	100.00%	100.00%	0.00%
23/01/2026	100.00%	100.00%	0.00%

Figure 2. T-3 failures for 1R19 since Dec 2025 change

In terms of daily lateness figures, Figure 3 shows the daily lateness in minutes for 1R19 at each of the scheduled call locations since the December 2025 timetable change. The range of lateness at Euston for this service extends from arriving 2 mins early (16th January 2026) to 37 mins late (7th January 2026).

Date	Manchester Picc	Stockport	London Euston
15/12/2025	0	1	7
16/12/2025	2	3	2
17/12/2025	0	1	4
18/12/2025	-1	1	2
19/12/2025	0	1	4
06/01/2026	-1	2	19
07/01/2026	7	9	37
08/01/2026	-1	0	0
12/01/2026	0	1	0
13/01/2026	0	1	5
14/01/2026	0	1	4
15/01/2026	0	0	3
16/01/2026	0	1	-2
19/01/2026	-1	2	6
20/01/2026	2	3	0
21/01/2026	0	1	1
22/01/2026	-1	0	3
23/01/2026	-1	1	32

Figure 3. Total lateness (in minutes) for 1R19 since December 2025 change

There have been no recorded cancellations of 1R19 to date since the December 2025 timetable change. This includes any 'Failed to Stop' ('FTS') incidents.

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In terms of delays, there have been 115 minutes attributed to 1R19 since the December 2025 timetable change, with the majority of these minutes being due to Network Rail responsible incidents (Figure 4).

	Network Rail	TOC-on-Self	TOC-on-TOC
Primary	63	-	-
Congestion	12	5	13
Late Start	18	4	-

Figure 4. Delay minutes attributed to 1R19 since Dec 2025 change

Looking at the subsequent reactionary delays, the data in Figure 5 shows that 1R19 has the subsequently caused 58 mins of reactionary delay to other services, primarily on their own operations:

	Affected Operator	Reactionary delay mins
Congestion	Freightliner Intermodal	4
	Northern	2
	CrossCountry	2
	East Midlands Railway	2
	Caledonian Sleeper	8
	Avanti WC	19
Late Start	Avanti WC	21

Figure 5. Reactionary delay minutes caused by 1R19 since Dec 2025 change

6. Please explain Network Rail's current view on the use of 'firebreak paths' on the West Coast (south) and how these align with industry processes for train planning.

As set out in Network Rail's representations of 25 April 2025, the analysis of the performance of the fast line timetable on WCML South (between Euston and Rugby) demonstrated the importance of ample recovery being available to absorb sub threshold delays before locations where there are multiple services tightly flighted. The WCML is currently not performing to a consistently high level, and recovery from incidents are taking longer to recover due to the successive flighting of trains on the WCML fast lines. This is particularly being felt at Rugby in the Up direction when services are converging, and at Ledburn Junction and Rugby in the Down direction towards the afternoon / evening peak. Having firebreaks in the timetable at key conflict points helps to prevent spread of delay service group to service group.

Part D and the Decision Criteria under Condition D4.6 apply to any timetable decisions being made in line with the Network Code. The Objective (Condition D4.6.1) requires Network Rail to share capacity for the safe carriage of passenger and goods in an efficient and economical manner. This is achieved through the application of the Decision Considerations (Condition D4.6.2). All 12 of the Considerations are of equal weighting/value until such time that a higher value is assigned by Network Rail. D4.6.2(c) relates to train performance. Network Rail submit that it can, in line with the Decision Considerations, utilise the Decision Criteria to justify why an otherwise compliant train should not be accepted into a timetable on performance grounds, considering how well the planned timetable is performing and how well the timetable can recover from perturbation that occurs.

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Please contact us if there is any further information you require.

Yours sincerely,



North West & Central Region



System Operator

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Appendix A – Copy of December 2022 ESG RailSys Technical report (see attachment)

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Appendix B – Sensitivity extract from December 2022 ESG performance modelling

3.4 Sensitivity Test 1: Open Access Removed – Delay Minutes Overview by TOC

		Dec 2022 Variant				Dec 2022 ST1				Dec 2022 Variant vs Dec 2022 ST1		
TOC	Class	Total delay time (hh:mm:ss)	Total train kilometres (Km)	Delay sec. per Km	No. of trains	Total delay time (hh:mm:ss)	Total train kilometres (Km)	Delay sec. per Km	No. of trains	Total Delay increase (hh:mm:ss)	Delay sec. per Km increased (%)	Change in train kilometres (%)
Avanti West Coast	1	08:32:13	66,235	0.46	241	07:55:50	66,235	0.43	241	-00:36:23	-7.10	0.00
Avanti West Coast	5	00:08:33	445	1.15	26	00:08:34	445	1.15	26	+00:00:01	0.19	0.00
Avanti West Coast	9	03:07:37	14,920	0.75	57	02:52:56	14,920	0.70	57	-00:14:41	-7.83	0.00
West Midlands Trains	1	06:08:03	27,707	0.80	172	06:01:11	27,707	0.78	172	-00:06:52	-1.87	0.00
West Midlands Trains	2	07:43:32	17,230	1.61	434	07:42:31	17,230	1.61	434	-00:01:01	-0.22	0.00
West Midlands Trains	3	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
West Midlands Trains	5	00:01:00	100	1.81	17	00:02:57	100	1.77	17	+00:00:03	-1.67	0.00
Arriva Rail London	2	00:26:52	541	2.98	114	00:26:34	541	2.95	114	-00:00:18	-1.12	0.00
Arriva Rail London	5	00:03:05	83	2.22	20	00:03:06	83	2.23	20	+00:00:01	0.54	0.00
Southern	2	00:49:39	2,209	1.35	37	00:49:45	2,209	1.35	37	+00:00:06	0.20	0.00
Southern	5	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
CrossCountry	1	01:53:37	9,503	0.72	116	01:53:22	9,503	0.72	116	-00:00:15	-0.22	0.00
CrossCountry	3	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
CrossCountry	5	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
Transport for Wales	1	01:45:27	5,144	1.23	147	01:42:03	5,144	1.19	147	-00:03:24	-3.22	0.00
Transport for Wales	2	00:01:21	99	0.82	14	00:01:23	99	0.84	14	+00:00:02	2.47	0.00
Transport for Wales	5	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
Caledonian Sleeper	0	00:00:34	2	14.60	1	00:00:35	2	15.00	1	+00:00:01	2.94	0.00
Caledonian Sleeper	1	00:02:14	656	0.20	2	00:02:15	656	0.21	2	+00:00:01	0.75	0.00
Caledonian Sleeper	3	00:01:07	23	2.88	2	00:01:04	23	2.75	2	-00:00:03	-4.48	0.00
Caledonian Sleeper	5	00:00:30	11	2.68	1	00:00:30	11	2.68	1	+00:00:00	0.00	0.00
Grand Union Trains	1	00:27:32	2,620	0.63	8	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
East West Rail	2	00:27:30	278	5.93	55	00:27:21	278	5.90	55	-00:00:09	-0.55	0.00
East Midlands Railway	1	00:19:23	624	1.86	39	00:19:14	624	1.85	39	-00:00:09	-0.77	0.00
East Midlands Railway	2	00:06:11	396	0.94	14	00:06:14	396	0.95	14	+00:00:03	0.81	0.00
East Midlands Railway	5	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
Northern Trains	1	00:33:57	1,472	1.38	56	00:30:26	1,472	1.24	56	-00:03:31	-10.36	0.00
Northern Trains	2	02:09:58	5,635	1.38	268	02:09:09	5,635	1.38	268	-00:00:49	-0.63	0.00
Northern Trains	5	00:06:23	49	7.76	25	00:06:21	49	7.72	25	-00:00:02	-0.52	0.00
TransPennine Express	1	00:22:13	482	2.77	35	00:22:13	482	2.77	35	+00:00:00	0.00	0.00
TransPennine Express	5	00:00:11	3	4.09	1	00:00:11	3	4.09	1	+00:00:00	0.00	0.00
Locomotive Services	5	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
Short Term Freight	0	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
Short Term Freight	6	00:00:00	N/A	N/A	N/A	00:00:00	N/A	N/A	N/A	N/A	N/A	N/A
Long term Freight	0	00:05:48	294	1.18	11	00:05:53	294	1.20	11	+00:00:05	1.44	0.00
Long term Freight	1	00:31:21	3,298	0.57	18	00:28:59	3,298	0.53	18	-00:02:22	-7.55	0.00
Long term Freight	3	00:01:59	217	0.55	1	00:01:51	217	0.51	1	-00:00:08	-6.72	0.00
Long term Freight	4	02:25:42	10,372	0.84	61	02:23:09	10,372	0.83	61	-00:02:33	-1.75	0.00
Long term Freight	5	00:00:02	2	1.00	2	00:00:02	2	1.00	2	-00:00:00	0.00	0.00
Long term Freight	6	00:52:59	3,553	0.89	46	00:52:33	3,553	0.89	46	-00:00:26	-0.82	0.00
Long term Freight	7	00:00:02	2	0.98	1	00:00:02	2	0.98	1	-00:00:00	0.00	0.00
Total		39:18:35	174,107	0.81	2042	37:58:14	171,586	0.79	2044	-01:40:21	-2.79	-1.50

Table 11 Sensitivity Test 1 Delay by TOC

Note Appendix A is not available as the letter contained an embedded file, not available in PDF

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Appendix B – Network Rail General Representation on Complex and/or Competing Applications Interacting on Location West Coast Main Line.

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25th April 2025

Network Rail General Representation on Complex and/or Competing Applications Interacting on Location West Coast Main Line.

1. Purpose

This letter is being sent to ORR as a general representation for applications submitted by Operators to ORR on or before 20 May 2024, for Complex and/or Competing Applications that interact at one of the nine interacting locations (as listed in ORR's letter to the industry dated 24 April 2024), but in particular those interacting with the West Coast Main Line ('WCML') London Euston-Nuneaton. These applications will also impact other areas of the North West and Central Region (NW&C). Network Rail is making general representations which should inform the ORR in its decision-making process with regards to applications on the WCML (highlighted in paragraph 4 of this letter).

This letter is subsequent to our previous letter dated 07 February 2025 which also provided representations relating to the WCML South. The 07 February 2025 letter remains applicable to the applications and nothing in this letter replaces anything provided in the previous letter. The focus of that letter was on the fast lines and services running into London Euston as the majority of passenger services operating on the WCML South originate or terminate at London Euston. This makes London Euston the key location during times of perturbation for managing service recovery through the cancellation of services. As a terminus location, platform capacity is vital when managing perturbation as services must depart before arriving services can terminate. Moreover, not having the flexibility to move stock in either direction reduces the ability to free up capacity, resulting in the station becoming congested quickly. Network Rail has continued to highlight the importance of maintaining a resilient timetable and the detrimental impact increasing the quantum of service can have on performance.

Current performance metrics had been included that demonstrated performance is currently not meeting expectations and is expected to decline further once all services, which currently hold access rights, are running. In the December 2025 timetable, Avanti has rights to run additional services between Liverpool and London Euston, and First Rail Stirling has rights to run services between Stirling and London Euston. Validation of the December 2025 timetable is ongoing with the timetable offer due on 13 June 2025.

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Pedestrian flow analysis provided shows that capacity at London Euston is forecast to be exceeded more regularly and for longer durations once services are running for all current access rights. Any further growth to passenger numbers because of further access rights granted and services run would further exacerbate the current challenges the station faces in passenger flow and the consequential passenger experience.

The capacity assessment provided, with the representation dated 07 February 2025, has been completed for the fast lines on the section of WCML between London Euston and Rugby; it cannot be assumed that paths would be available beyond Rugby to accommodate the access rights from their origin or to their destination. Any capacity assessment does not consider either diversionary or ancillary moves required for operators to run their services.

The information contained within this letter is provided in addition to previous representations.

This letter responds to ORR's requests, both in meetings and email correspondence, that Network Rail demonstrates progress in assessing applications submitted to ORR by 20 May 2024.

Whilst the technical analysis referred to in this letter will be used as assurance of the proposed access rights for the current Section 22A's and Section 17's applications affecting the WCML South, this representation does not constitute our final representations on any of the applications (or specific access rights within that application currently being sought). [We expect the final representations to be with you week commencing 19 May 2025 or where possible we will seek to expedite.]

Where there are a number of applications seeking capacity pertinent to the WCML South and as detailed in Appendix A, the basis of our support of applications either in total, or in part (as can be determined by reading the relevant representations), may have a connection to our position on all other applications at that location. Accordingly, you may wish to wait for final representations on related applications and the information provided therein prior to making your decision.

The rights contained within Appendix A are highlighted as follows:

- Blue for passenger rights requesting capacity where services are not accommodated in the May 2025 timetable.
- Purple for passenger rights requesting capacity where services are accommodated in the May 2025 timetable.

2. Summary of this General Representation

This letter provides further performance information to support ORR in its decision-making process for deciding applications. Performance information is provided relating to WCML South and other key locations for which the rights within the applications interact.

Network Rail also provide conclusions from the recent power supply modelling undertaken for the NW&C Region.

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Network Rail is not expecting to support any additional rights on the WCML South seeking to utilise additional capacity on the fast lines, with the potential exception of one Manchester to London Euston service contained within Avanti's proposed 17th Supplemental Agreement. This service has been running under Contingent Rights since the December 2024 timetable, and it is Network Rail's understanding that if not granted Avanti would still require capacity in the form of an Empty Coaching Stock (ECS) move to balance stock at London Euston.

Network Rail is currently assessing Caledonian Sleeper's 9th Supplemental agreement, which is not looking at an additional path but a diversion via Birmingham International and which currently holds a firm quantum right between London Euston and Rugby. Work is ongoing to assess the application and Network Rail cannot yet confirm whether it is supportive.

3. Background

On 24 April 2024 ORR issued a letter to the industry on "Competing and/or Complex track access applications for December 2024, May 2025, and December 2025 timetable changes." Across nine interacting locations listed in that letter, a total of 82 unsupported Applications, under sections 22A and 17 of the Railways Act 1993, were submitted to ORR. This is an unprecedented volume of unsupported applications to be received at the same time and with potentially competing and conflicting requirements for areas of capacity which are already constrained. The process created by ORR's 20 May 2024 deadline, and the subsequent management and consideration of applications, has therefore been unique in its nature.

53 applications were received for the 20 May deadline which directly impact the North West & Central Region (not just WCML), of which 26 applications relate to passenger services and 27 applications relate to freight services. Following that letter from ORR and the submissions from existing and new Operators, as invited by ORR, Network Rail submitted their first representations to ORR by 28 June 2024. As requested by ORR, Network Rail submitted a High-Level plan for assessing the applications within this representation, and a further detailed plan was published on Network Rail's website in August 2024 (and updated in January 2025).

Additional to these representations, further representations were provided to ORR on 07 February 2025 concerning capacity and performance considerations for WCML South.

Since publication of the high-level plan in August 2024, Network Rail has endeavoured to complete key workstreams within the plan earlier than previously stated and has been able to achieve earlier completion of power supply modelling than originally foreseen. This is due to using the proposed timings provided by Operators to Capacity Planning for analysis, rather than a fully validated timetable base.

Our published program of work to assess applications continues forward with Phase 5 of our High-Level Plan (07 March 2025 – 13 June 2025), in which we will continue to assess December 2025 applications. Any other assurances we have stated previously need undertaking within the Routes and necessary functions, to provide evidence in future representations.

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4. Complex and Competing Applications

In response to ORR's request to the Industry dated 24 April 2024, operators submitted applications for any future service aspirations affecting nine 'interacting locations', including the West Coast Main Line between London Euston and Nuneaton. Of the 53 applications impacting North West & Central Region, 24 applications were received for the 20 May deadline which directly impact the WCML South, of which 8 of these applications relate to passenger services and 16 applications relate to freight services.

For clarity, the following passenger applications contain access rights pertaining to WCML South:

- Caledonian Sleeper Limited 9th
- West Midlands Trains Limited (WMT) 32nd
- First Trenitalia West Coast Rail Limited (Avanti) 3rd, 14th (14th has been withdrawn), 17th & 18th
- East Coast Trains Limited (Lumo North West) Section 17
- Virgin Management Limited (Virgin Trains) Section 17
- The Wrexham, Shropshire & Midlands Railway Company Limited (WSMR) Section 17

Network Rail considers the Avanti West Coast 11th Supplemental Agreement, submitted to ORR on 20 May 2024, as concluded. ORR has already made a decision in relation to the application, due to the rights being sought relating to the December 2024 timetable, with the rights expiring at the May 2025 timetable change date.

For clarity, the following freight applications contain access rights pertaining to WCML South:

- Colas Rail Ltd 10th
- DB Cargo (UK) Ltd 83rd
- DB Cargo (UK) Ltd 91st (subsequently withdrawn)
- Devon and Cornwall Railways Limited (DCR) 2nd
- Direct Rail Services Limited (DRS) 17th
- Freightliner Heavy Haul Limited (FLHH) 24th, 25th, 27th, 28th
- Freightliner Limited (FLIM) 23rd, 24th, 25th, 26th
- GB Railfreight Limited (GBRf) 25th, 34th
- Legge Infrastructure Services Limited 2nd
- Varamis Limited 2nd

5. Congested Infrastructure

Network Rail previously expressed concerns about capacity constraints on the WCML and in May 2020, Network Rail issued declaration of congested infrastructure for the WCML South Fast lines: Camden Road South Junction to Ledburn Junction Inclusive.

In February 2020, further analysis on WCML capacity was carried out as a result of a cross-industry group meeting in December 2019, in which it was agreed that the findings obtained in Network Rail's 'West Coast Main Line and Trans-Pennine Capacity and Performance Assessment' (2013) would be reviewed and subsequently updated. This was following a request from the ORR to review applications for additional services by 5 applicants.

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With effect from 11th May 2020 Network Rail declared the infrastructure on the WCML South fast lines between Camden South Junction and Ledburn Junction as congested infrastructure. This declaration was made under the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016, regulation 26 (2) because, following consideration of access requests received; Network Rail considered that this element of the infrastructure would be likely to become congested during the December 2020 timetable period. Consequently, Network Rail initiated a WCML Industry Planning Group ('IPG') in May 2020 which was tasked with considering options for generating additional capacity and improved performance. The IPG reported in January 2021 that a restructure of the WCML timetable could provide additional capacity and improved performance. The IPG therefore then initiated a second phase of work to develop and evaluate options for a restructured timetable, which was ultimately delivered under the governance of the Event Steering Group ('ESG') in December 2022.

As demonstrated in our representation of 07 February 2025 Network Rail will not be able to accommodate all applications seeking capacity on the WCML Fast Lines for the December 2025 timetable and beyond. As the declaration of congested infrastructure made in May 2020 remains active, Network Rail will not be reissuing a further declaration of congested infrastructure.

On 9 July 2024. Network Rail issued, "Early Indicator of Likely Congestion" notices in relation to the following sections of the North West & Central network:

- Acton Lane feeding area
- Washwood Heath / Willenhall feeding area
- Crewe / Weaver feeding area

These Early Warning Indicator notices related to the impact of capability constraints on known or likely applications for electric traction capacity. Having updated the power supply modelling as part of the May 25 onwards applications, Network Rail still has concerns in these areas.

6. Performance Concerns Affecting WCML Applications

Background

Network Rail has undertaken further analysis of the performance of the fast line timetable on WCML South (between London Euston and Rugby). The analysis conducted has shown the importance of ample recovery being available to absorb sub threshold delays before locations where there are multiple services tightly flighted. The current Operating Plan is not performing to a consistently high level, and recovery from incidents are taking longer to recover due to the successive flighting of trains on the WCML Fast Lines. This is particularly being felt at Rugby in the Up Direction when services are converging, and at Ledburn Junction and Rugby in the Down Direction towards the afternoon / evening peak.

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West Coast Main Line Performance – London Euston to Rugby

Timetable Resilience

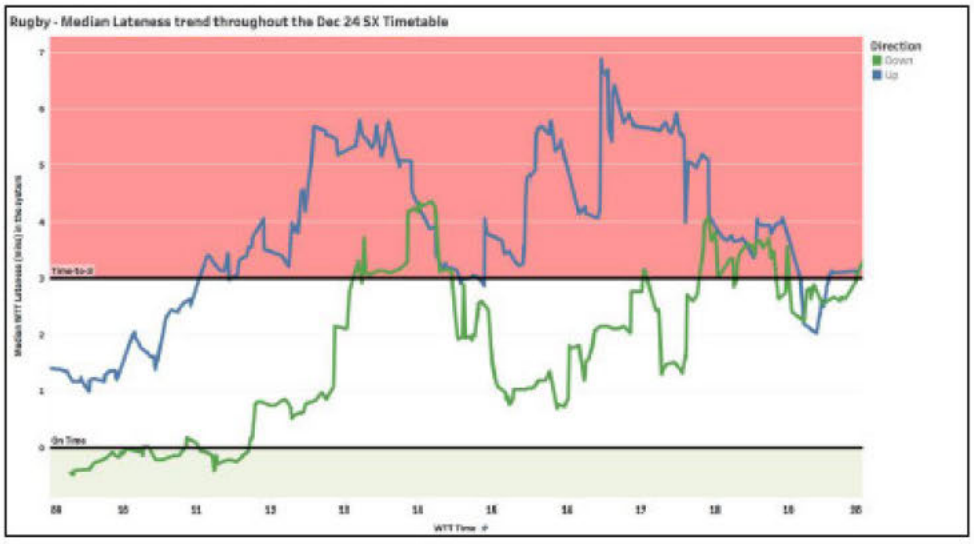
It is important to have a timetable that is resilient. A resilient timetable is one that, on a good day when no major unplanned disruption is taking place, can withstand typical variations in train presentation without significant spread of delay between services and across service groups. This is typically a function of either the content of the timetable plan itself or the content of the resource plan. Factors that underpin a resilient timetable plan include:

- Firebreaks in the timetable at key conflict points to prevent spread of delay service group to service group.
- Turnaround times that are robust to minor delays on inbound workings.
- Dwell times that reflect reality.
- Robust analysis before compliant but risky moves are introduced e.g., overtaking, splitting and joining, repeated re-occupations on minimum headways etc.

Resilience of the West Coast South Fast Lines – Up Direction

One of the critical points on the WCML is Rugby. Rugby is the point on the network where different long-distance operations converge at Rugby Trent Valley Junction and where punctuality is key to the successful onward delivery of the timetable flighting towards Ledburn Junction and Bourne End Junction as services make their way to London Euston.

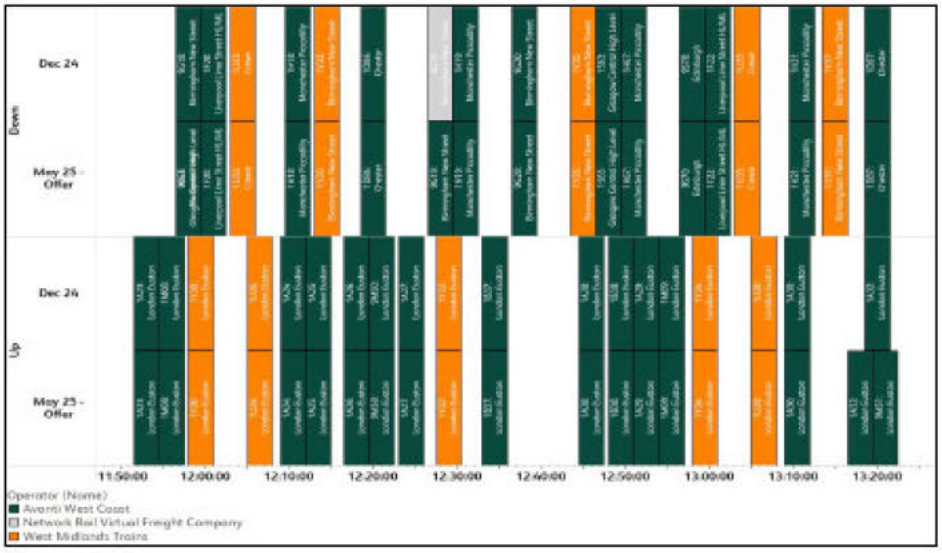
There is sub threshold delay in the system, at Rugby, in the Up Direction from ~09:00 until the end of service on a 'good day'. On a 'typical day' at Rugby from ~11:00 in the Up Direction there is always 3 minutes+ lateness in the system:



This level of lateness makes the planned presentation of timetabled paths in the south end of the WCML challenging, resulting in the poor punctuality of services currently seen between Ledburn Junction and London Euston through to the evening peak.

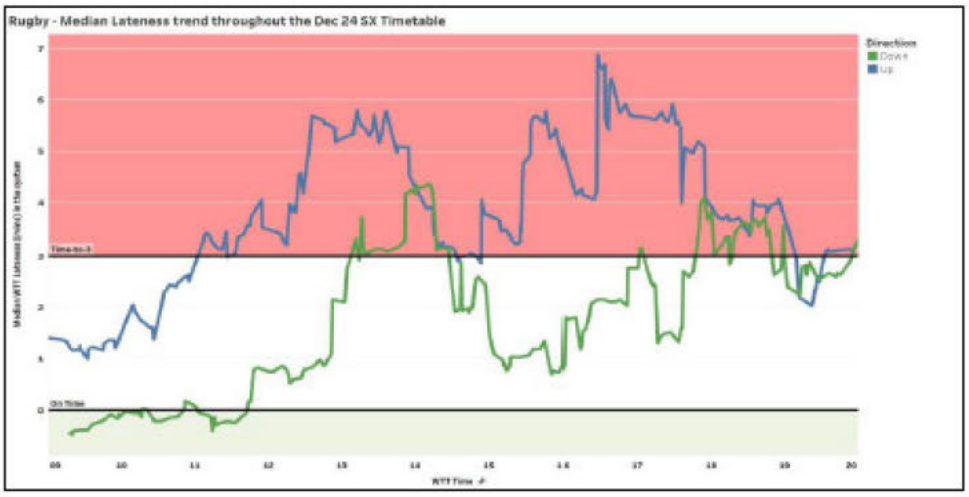
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Whilst firebreaks are built into the structure between Ledburn Junction and London Euston in the morning peak, off peak and evening peak (as evidenced at Bourne End Junction – off-peak example below), these do not have enough resilience inbuilt to reset lateness that has propagated from the north. On a 'bad day' at Bourne End Junction, 'planned white space' i.e. a firebreak, is almost completely eroded in both the morning and evening peak. The timetable at this point is over stressed and recovery is paramount.



Resilience of the West Coast South Fast Lines – Down Direction

Rugby is the diverging point for Fast Line services that have come from London Euston. Punctuality at Rugby is better in the Down Direction than it is the Up, however lateness is still evident. On a 'good day', lateness in the system at Rugby will stay within three minutes, with sub threshold delay emerging from ~12:00. On a 'typical day' the 3-minute lateness threshold is breached across two 90-minute periods starting at ~13:00 and again at ~18:00:



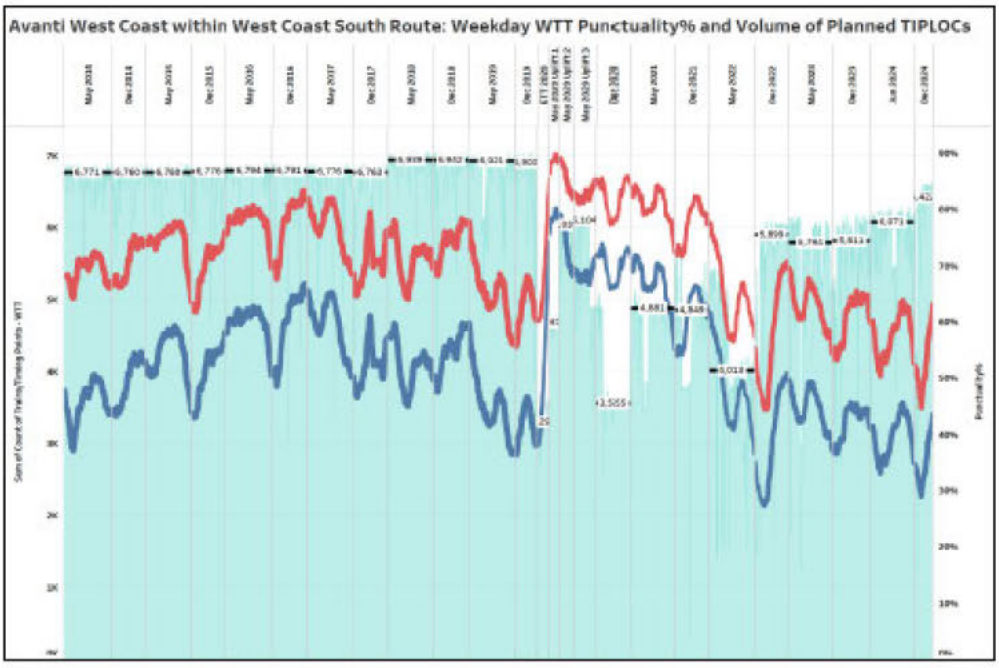
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Presentation along the south portion of the WCML is reasonable in the evening peak up until Ledburn Junction. It is at this point on a 'typical day' that presentation is variable, and trains which are designed to run on minimum headways frequently interact with each other.

Lateness manifesting itself at Ledburn Junction is typically a symptom of either sub-threshold late starts from London Euston, and/or Down Fast Line trains waiting for signals to cross over to the Down Slow Lines to continue their journey to Leighton Buzzard and other London Northwestern station stops. The net result is seen at Rugby, where from 15:00 lateness in the system gradually increases into the evening peak and breaks the 3-minute threshold at ~18:00.

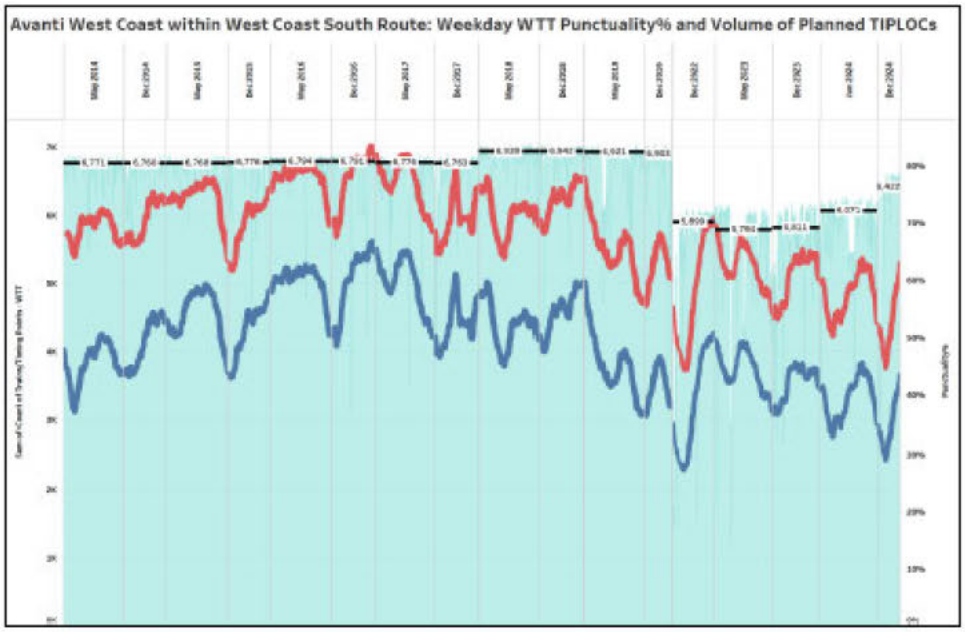
Current performance in December 2024

Avanti West Coast punctuality within the confines of West Coast South has been regressing since May 2017:



This can be further demonstrated when the COVID 'bounce-back' is removed from the data as well as the subsequent timetable changes that saw a reduced service offered up to December 2022:

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Above threshold congestion on the WCML is also increasing in the Up Direction. Congestion in this context is when a 3-minute + delay event is caused to the train behind, because the train in front is in the booked path. Even with firebreaks the lack of resilience in the current base plan to recovery to the levels required, means these firebreaks are being eroded and the perturbation of lateness ends up crossing Route boundaries.

Summary Performance Conclusions (WCML South)

The December 2024 timetable does not contain the proposed new services by First Rail Stirling (previously developed by Grand Union Trains), which are not expected to commence operation until December 2025, nor the outstanding additional Avanti services between London Euston and Liverpool, both of which have access rights, but are not yet running. The introduction of these additional services onto the Fast Lines is likely to have a further impact on performance. Network Rail's representation letter dated07 February 2025 stated that as part of the December 2022 Event Steering Group, performance sensitivity testing to assess the impact of adding additional services was undertaken. The Network Rail position (previously expressed both during and following the December 2022 ESG) is that the clear performance delta between the sensitivity test outputs (both T-1 and T-3 metrics), and the specific risks highlighted for the Up Fast Line (between Rugby and London Euston) indicates that the quantum of Fast Line services contained in the December 2022 Concept Train Plan (an output of the ESG) had reached a critical threshold level in terms of manageable capacity utilisation, beyond which the introduction of any further services was likely to trigger a notable compromise to network performance through increased reactionary delay.

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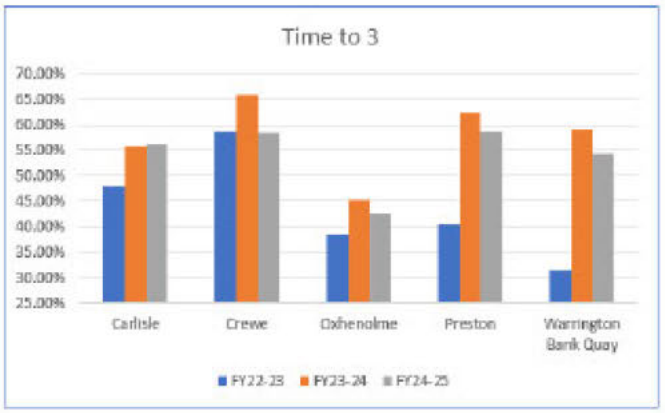
Given the likely impacts as a result of introducing additional services on WCML South Fast Lines, Network Rail does not currently support any additional quantum access rights on the Fast Lines, with the potential exception of the Avanti 17th SA Manchester to London Euston right sought (which is currently operating in the timetable under contingent rights (interim approach) and if not granted would be required to run as ECS for rolling stock balancing purposes, and using capacity, regardless. For the benefit of passengers and freight users, it is Network Rail's view that Operational Performance across all operators on WCML South needs to both recover to, and be sustained at, a higher level than current performance before additional train services, which don't have rights, are considered for inclusion into the timetable.

North of Preston

The route North of Preston is predominantly two track railway with considerable gradients and with significant speed differences between long distance passenger services and freight. Capacity on this section of track is very constrained with punctuality nearly 20% lower than the rest of NW&C (Time to 3 of 65.8% MAA P13 24/25 verses the NW&C Region T3 of 82.5% MAA P13 24/25). A two track railway north of Preston operating a mix of traffic means flighting is imperative to performance. This involves consideration for traction speed capability, calling pattern, turnround at destination, freight tonnage and freight length. Given the likely impacts as a result of introducing additional services , Network Rail currently does not support any additional quantum access rights on WCML South Fast Lines, with the potential exception of the Avanti 17th SA Manchester to London Euston right sought which is currently operating in the timetable under contingent rights (interim approach) and if not granted would be required to run as ECS for rolling stock balancing purposes, and using capacity, regardless. All of these compound the issue when trying to manage performance across multiple passenger and freight users.

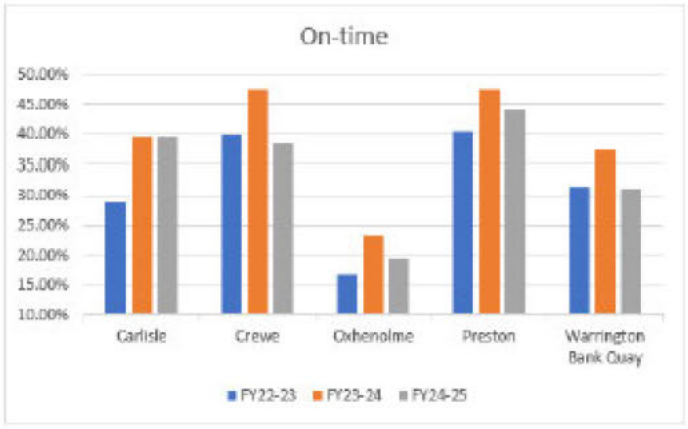
The tables below consider performance on the North section of WCML between Crewe and Carlisle, and key stations in between:

	Time to 3				
	Carlisle	Crewe	Oxhenolme	Preston	Warrington Bank Quay
FY22-23	48.00%	58.90%	38.60%	40.40%	31.40%
FY23-24	55.70%	65.90%	45.20%	62.40%	59.10%
FY24-25	56.30%	58.50%	42.50%	58.90%	54.30%



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	On-Time				
	Carlisle	Crewe	Oxhenolme	Preston	Warrington Bank Quay
FY22-23	29.10%	39.80%	16.80%	40.40%	31.40%
FY23-24	39.60%	47.50%	23.40%	47.50%	37.60%
FY24-25	39.70%	38.60%	19.40%	44.00%	31.10%



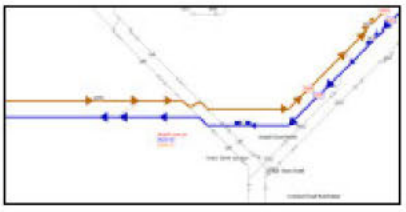
2024/25 has seen a reduction in train performance compared to 2023/24 as a general trend, there are some instances where it has improved however:

- Crewe On Time has dropped to the lowest level of 38.6%, with Time to 3 at 58.5%
- Oxenholme On time is at 19.4%, Time to 3 recorded at 42.5%
- Preston on time is at 44.0% and 58.9% for Time to 3

6.3 Manchester Victoria – Rochdale Performance Review

Current performance of this section sees a Time to 3 of 71.5% which is significantly below the overall NW&C position of 82.5%. Infrastructure investment in planned through Manchester North West Transformation Programme (MNTP) (see later section) to support improving the performance outcome.

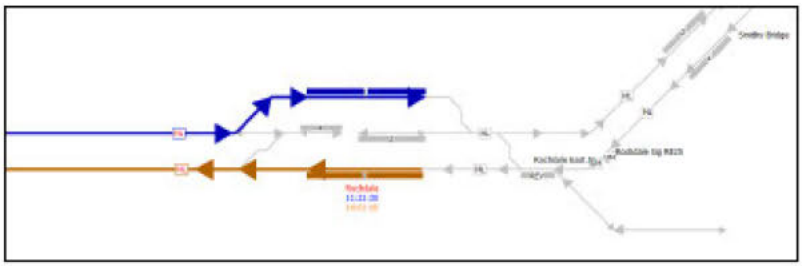
The route has a number of capacity constraints:



- **Ordsall Lane Jn** sees a difficult junction move for any services from the Chat Moss towards Victoria, with paths required in between services travelling on the Up and Down Bolton lines.
- **Manchester Victoria:** lack of additional capacity above the current service level for additional services at Manchester Victoria
- **Rochdale**: lack of terminating capacity. Trains arriving at Rochdale station from the west have the option of using platforms 1 and 4, which are 198m and 105m respectively. P4 is too short to accommodate either 22x or 80x rolling stock, leaving P1 as the only permissible platform. Platform 1 is utilised at least 4 times an hour by the through passenger Calder Valley services,

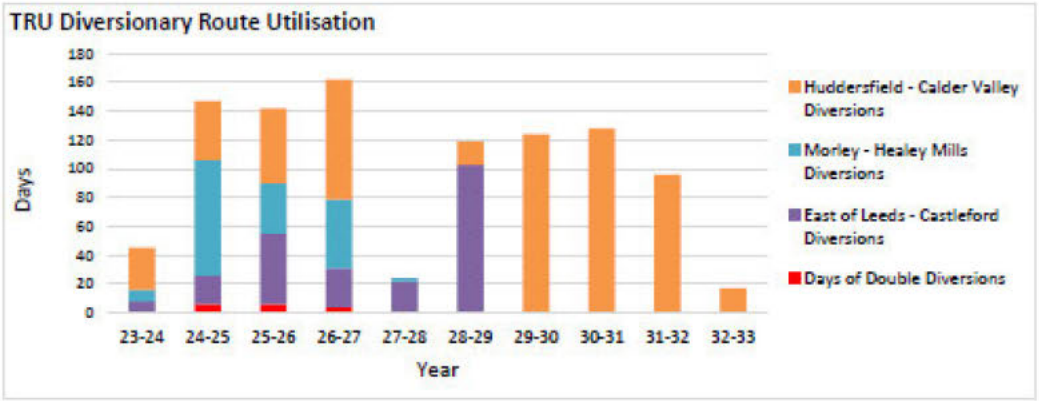
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alongside all eastbound freight services. Platform 1 is not signalled for a reversal, hence trains would need to shunt via the Reversing Siding (P1 - Reversing Siding - P4), this reversing siding would need upgrading to be able to accommodate a 22X or 80X train length. Both Virgin and Lumo applications are looking to use this station and rolling stock.



Transpennine Route Upgrade

The Calder Valley is the agreed diversionary route for Diggle while TRU is being built. This has diversionary capacity for up to three services per hour to support keeping the Manchester – Leeds passenger market on trains during the main construction phases of TRU (into the 2030s). Therefore, no additional access rights can be granted to Rochdale which do not allow for this diversionary route capability. Both Lumo NW and Virgin applications would be affected by this and Network Rail will comment on these in final representations where applicable. Schedule 2.2 of the Track Access Contract states that "In order to provide Services when any part of the route is unavailable, the Train Operator has permission to use any reasonable route for diversionary purposes, subject to obtaining any necessary route clearance for the Specified Equipment over the route in question." Adding additional paths to the WCML Fast Lines, would mean reducing the capacity for the diversionary route. Consequently, engineering access is less likely to be supported by operators, significantly driving up the cost of delivering work. This has a lasting impact to passenger numbers, which having largely recovered from COVID, would then be impacted significantly by disruption and may turn to alternative forms of transport. There are over 83 days of diversion planned in 2026/27 with over 100 days of diversion needed from 2029/30.



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Manchester Task Force (MTF)

The Manchester Taskforce Board was formed by partners and industry members in 2020 to undertake a strategic review of capacity utilisation for the Manchester area including the Castlefield corridor and Manchester Victoria. This resulted in a reformulation of pan Manchester timetables to remove train services that could not be operated practicably to maintain the overall operational integrity of these critical corridors. The timetable today still reflects this approach, with the timetable structure and quantum produced in the December 2022 Concept Train Plan for December 2022. Network Rail emphasises that strategic planning for the current and future timetable structure in Manchester is founded on this approach to capacity utilisation, at least until infrastructure capacity is increased in Configuration State 3 when the approach will be reviewed. This does not yet have fully agreed delivery funding.

Appendix B summarises the approach taken for the December 2022 timetable Manchester Recast. This includes the performance impacts and conclusions to reduce the number of services in central Manchester and the work to consult the changes which resulted in the removal of direct connectivity from Sheffield to Manchester Airport, the removal of North TransPennine connectivity (West Yorkshire, Newcastle) to Manchester Airport, removal of Wigan and Southport connectivity to South Manchester and reduced capacity on the CLC Route via Warrington.

Work is now focused on delivering infrastructure interventions to support robust increase in services in the 2030s through MNTP.

Manchester North West Transformation Programme (MNTP)

MNTP Configuration State (CS) 2 is the next phase due to be implemented in 2026 which will support performance improvement across Manchester North and Calder Valley services. The following infrastructure will be delivered:

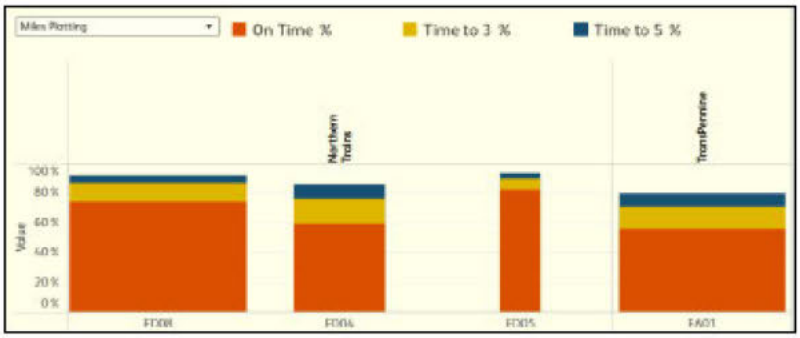
- Salford Crescent additional platform
- Wigan – Bolton electrification
- East of Victoria turnback
- Oldfield Road turnback

Even with this level of infrastructure investment, there is only a minor increase in service level between Manchester Victoria and Salford Central Platforms 1 and 2. Leading to a benefit to performance through the splitting of longer services groups across Manchester Victoria. With the additional benefit of decarbonisation through the ability to operate EMUs following completion of the electrification schemes.

MNTP Configuration State 3 which includes infrastructure interventions at Manchester Oxford Road and Manchester Airport is the first release of capacity on both the Castlefield Corridor and Ordsall Chord. This is the point when there is robust capacity in Manchester for additional services and an expected improvement to central Manchester performance. Consultations have commenced on Manchester Oxford Road scheme design with planned construction in the early 2030s however, as yet, this remains unfunded.

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Virgin Trains routing avoiding Castlefield Corridor: The application has amended the routing to serve Manchester Victoria instead of Manchester Piccadilly, with the service routed via Stockport (Heaton Norris Jn) and Miles Platting Junction (via Reddish South) to call at Manchester Victoria. It is positive to see the service proposed away from the congested area of Manchester Piccadilly and Castlefield Corridor. This does, however, introduce further constraints and performance concerns through the crossing moves required at Heaton Norris Jn and Miles Platting.



Miles Platting Junction to the East of Victoria is the main junction between east-west flows to the Calder Valley and Diggle Route. The On-Time for Inter Regional services at this location is very low due to the level of interaction. With TPE Liverpool – Newcastle achieving 39.1% On Time, and the Northern Leeds to Chester services achieving 35% On Time. Introducing a North – South service at this critical junction would risk further delay propagation between WCML and TransPennine routes.

Flow	On Time %	Time to 3 %	Time to 5 %	WTT Poin.
1J - Manchester Victoria to Leeds	80.0%	93.0%	95.6%	1,407
2J - Clitheroe to Rochdale	73.7%	83.4%	89.8%	1,232
9E - Liverpool Lime Street to Newcastle	39.1%	57.9%	73.0%	1,205
1E - Chester to Leeds	52.3%	73.1%	84.4%	1,183
9M - Newcastle to Liverpool Lime Street	39.4%	53.3%	61.9%	1,158
2N - Rochdale to Clitheroe	77.5%	89.8%	94.3%	1,142
2B - Rochdale to Blackburn	73.1%	87.8%	96.0%	1,139
1D - Leeds to Chester	35.0%	57.1%	73.5%	1,113

7. Power Supply Modelling related to WCML aspirations

Background

Following the receipt of the applications on 20 May 2024, Network Rail has undertaken power modelling of the baseline of all current access rights accommodated in the timetable, rights currently held and expected to be introduced in the immediate timetables, as well as undertaken power modelling of the additional rights applied for on 20 May 2024.

Network Rail has worked with operators to assure the baseline used in the power supply modelling of NW&C Region accurately represents services as running in normal daily operations. The modelling has been undertaken by Navitas Engineering. This modelling has been completed utilising Vision/Oslo Simulator and assessed in line with BS EN 50163, BS EN 50388, and NR/L2/ELP/27275.

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Modelling has also taken into account existing commercial and contractual arrangements with National Grid (Transmission Network Operator (TNO)) and the Distribution Network Operator (DNO), within the context that Network Rail is obligated to not exceed contractual limits between Network Rail and the DNO or TNO.

In addition to this, modelling has been completed in line with the following industry standards and guidelines:

- Transmission Energy Networks Association Engineering Recommendation P24 (the acceptable level of imbalance (Negative Phase Sequence (NPS)) that NR can export onto the power system) as set out by the TNO.)
- Standard BS EN 50388 Annex A for Thermal Loading of assets
- Standard BS EN 50163 Voltage levels

As the ORR will be aware, Network Rail is currently seeing an increase in the introduction of bi- mode or tri-mode trains to be run in electric, replacing older diesel rolling stock. Previously these have rarely given rise to concern as both passenger and freight operating companies have deployed few electric or bi-mode trains. However, this position is now changing and Network Rail as a responsible infrastructure manager is looking at the effective management of this. Due to the nature of power capacity Network Rail may need to impose further operational controls and restrictions on the use of electric or bi-mode trains (which follow existing procedures) and/or may need to object to the introduction of further electric/bi-mode trains where there is not the requisite power capacity.

Network Rail is conscious of its legal and regulatory obligations for power capacity to be allocated in a fair, open and transparent manner and in the least restrictive way possible, and are always mindful of our duty of non-discrimination and equal treatment.

In its power modelling, Network Rail (NR) has attempted to maximise the capability of the network by assessing a realistic timetable which takes into account aspirations as well as a timetable running under normal operations today and in the expected future timetable (December 2025).

We have modelled a quantum of operations and traction reflective of the actual operational position.

This means that the timetable modelled does not reflect the worst-case scenario should operators choose to exercise their full existing rights to operate at full lengths or in electric (instead of diesel).

By coupling these modelling results with industry-agreed operational controls and mitigations (including restrictions to operating lengths and arrangements with operators to "notch back" through the areas of concern), three particular areas of concern remain:

- Washwood Heath (evening peak)
- Crewe and Weaver (peaks throughout the day)
- Willenhall

In these areas, further consideration is being given to introduction of additional controls as part of operating the current level of services, including potential rejection of some services with rights under electric traction.

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Capacity at locations across the wider system, (including Willenhall, Acton Lane, Edgeley, Willow Park, Galton Junction and Heald Green) means that no additional services running in electric in these areas beyond those for which rights have already been sold can be accommodated until power system enhancements have been delivered. These enhancements are part funded, with outstanding funding subject to ongoing discussions with DfT.

Power Supply Conclusions

Network Rail has undertaken a comprehensive power supply modelling exercise to assess the impact of accommodating all outstanding access proposals for additional electric services against the rights already held by operators (both passenger and freight), on the network's traction power supply capability. The outputs from this analysis have led Network Rail to reach the following conclusion with regards applications for rights (and future returning rights) to the WCML South:-

- The London Euston-Rochdale paths that Lumo has applied for appear in many of the power loading peaks and as such, even if the issues explained above were to be overcome, should not be supported using electric traction until the upgrades have been completed. Currently funding and planned implementation dates are unknown for all interventions.

Given the complexities of the power supply modelling undertaken by Network Rail, the opportunity to discuss the details with ORR directly (focussing on the key constraints and times) would be welcomed.

8. Our obligations:

Network Rail is mindful of following good and established practice as well as regulatory and legislative requirements when considering applications that potentially compete for capacity. The principles within recently repealed Regulation remain good practise in lieu of an alternative policy / framework being established for facility owners.

As access regulator however, ORR has not been subject to this restriction historically. In a number of cases ORR may be close to reaching a decision that requires little additional information from Network Rail. Indeed, we note that it has already made decisions on some interacting rights; for the Hull Trains 28th Supplemental Agreement (SA), Grand Central 24th SA, and Northern 57th SA applications.

As we made clear in our initial representation letters on 28 June 24, from the beginning we have been mindful to make sure we do not unduly discriminate. As highlighted in the Annexes of this letter, Operators are seeking access rights on WCML which also go to other locations which we know may have capacity constraints and the inability to accommodate all. Other locations are not limited to the 9 interacting locations identified in ORR's letter of 24 April 2024, it also includes other locations where the allocation of capacity may be constrained due to the number of access rights being sought in the competing and/or complex applications submitted by 20 May 2024.

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As stated in our interim approach, wherever we are able to reach a conclusive position, positively or negatively, we will provide final representations to ORR so that it may reach a decision consistent with its statutory duties. This might relate to a single application or a number that interact in a relatively contained way if we are able to reach a position of confidence about the way these applications interact with others.

We recognised from the outset that the High-Level Plan would take many applications beyond D40, and the interim approach accommodated this, keeping aspirants at the same priority level as those with contingent rights and with no presumption of continuity.

When Network Rail published its original High-Level Plan in June 2024 and more detailed plan in August 2024, and as highlighted in Network Rail's 28 June 2024 representations of the unsupported applications to ORR, it was with the insight and awareness of the dependencies, complexities and risks that the 53unsupported applications (at that time) proposed for multiple interacting locations and Network Rail Routes bring with them.

9. Conclusion

As set out in this representation, and that provided on 07 February 2025, Network Rail believes any additional services on the fast lines on the WCML South would have a significant detrimental impact to performance where the current quantum of services, combined with the realities of operating a mixed traffic railway, already have significant performance challenges and contribute to delivering performance at a level below expected levels.

Network Rail currently does not support any additional WCML South application seeking to utilise additional capacity on the fast lines with the potential exception of one Manchester to London Euston contained within Avanti's proposed 17th SA as it is Network Rail's understanding that if not granted Avanti would still require capacity in the form of an Empty Coaching Stock move in order to balance stock at London Euston. This train has been running since the beginning of the December 2024 timetable.

Network Rail has highlighted Power Supply as a concern in a number of areas. These concerns are expected to limit what Network Rail can support in terms of additional electric traction rights on the WCML and will, where relevant, be commented on in individual representations. Network Rail would welcome the opportunity to further discuss the outputs of the power supply modelling with ORR.

Network Rail believes the concerns outlined in this representation together with the representation dated 07 February 2025, on the South section of the WCML provides the ORR with a significant suite of material to support it in its relevant determinations. Network Rail will provide you with final representations in relation to the applications listed below. We expect to provide ORR with these week commencing 19th May 25 (where possible we will seek to expedite).

- First Trenitalia West Coast Rail Limited (Avanti) 3rd (Monday – Friday and Saturday Only Glasgow and Blackpool extensions)
- First Trenitalia West Coast Rail Limited (Avanti) 17th (Monday - Friday Glasgow and Blackpool extensions and new services)
- First Trenitalia West Coast Rail Limited (Avanti) 18th (1 x Liverpool – London Euston each way on a Sunday)

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- East Coast Trains Limited (Lumo North West) (Services between Rochdale and London Euston from 2027)
- Virgin Management Limited (Virgin Trains) (Services between WCML destinations and London Euston from 2025)
- The Wrexham, Shropshire & Midlands Railway Company Limited (WSMR) (Wrexham-London Euston 5 daily services each way)

Given the current evidence and analysis our current position of not being supportive of the applications is unlikely to change.

Work currently continues in line with the High-Level Plan published August 2024 and updated January 2025.

This letter seeks to provide ORR with useful context and detailed information on the application that will support the positions that Network rail takes in our subsequent responses to you in the imminent individual representations.

When we published our original High-Level Plan in June 2024 and more detailed plan in August 2024, and as highlighted in Network Rail's 28 June 2024 representations of the unsupported applications to ORR, it was with the insight and awareness of the dependencies, complexities and risks that the 82 unsupported applications proposed for multiple interacting locations and Network Rail Routes bring with them.

Our representations will be clear on our position on access applications and rights contained within them. In some circumstances this may be on a premise that Network Rail could only accommodate the access rights sought on a certain basis such as quantum only.

Taken as a whole Network Rail believe the above information, with the detail and analysis provided in the Appendices to this correspondence provide the ORR with a significant suite of material to support it in its relevant determinations. Additional application specific details will be provided shortly with final representations. We do not expect ORR to make a direction in support of the WCML Fast Line applications listed above for the reasons we have outlined, but should it do so, we want to be clear that further discussion would be needed on other locations these applications interact with.

If you have any questions or require clarification of any of the material provided herein, please do not hesitate to contact us.

Yours faithfully,

[redacted]

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NetworkRail

System Operator

West Coast Main Line South – Fast Lines Timetable Capacity Assessment

Advanced Timetable Team

05/02/2025

Final V1.3

On the side of passengers and freight users

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Abbreviations	
Acronym	Meaning
ESG	Event Steering Group
GUT	Grand Union Trains – now First Rail Stirling
NW&C	North West & Central Region
ORR	Office of Rail and Road
SX	Monday-Friday
T-3	Time to 3
Tpd	Trains per day
Tph	Trains per hour
TPRs	Timetable Planning Rules
WCML	West Coast Main Line

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Overview and purpose

This timetable capacity assessment was completed by the Advanced Timetable Team, Capacity Planning, in partnership with the North West and Central Region. It focusses on the West Coast Main Line (WCML) Fast Lines, on the West Coast South between London Euston (exclusive of platforming) and Rugby and is based off the current weekday (SX) timetable structure identifying pathing opportunities within the structure.

It does not consider the impact of any other interacting traffic, for example with the Slow Lines.

It also does not consider timetable capacity beyond Rugby.

This assessment concerns compliance with Timetable Planning Rules (TPRs) only and does not consider other areas of capacity such as power, or the ability to operate the service reliably.

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Assessment Commentary

The December 2022 timetable restructure of the WCML unlocked additional timetable capacity, above the pre-covid timetable levels, on the Fast Lines of the WCML. This led to ORR granting access rights on a contingent basis for an additional hourly London to Liverpool service and on a firm basis for 5 trains per day (tpd) arriving/departing at London Euston, run by open access operator Grand Union Trains (GUT), now First Rail Stirling: 4 tpd between London and Stirling and 1 tpd starting/ terminating short at Preston.

As part of the Interacting Rights workstream several other operators are looking for paths, which due to their long-distance characteristics would normally be planned using the Fast Lines on the south of the WCML. An understanding of the remaining capacity on the WCML is required to help Network Rail in responding to a number of unsupported access applications submitted to the ORR.

The December 2022 Event Steering Group (ESG) produced a Concept Train Plan with the Standard Hour timetable pattern for departures/ arrivals at Euston as shown below (Table 1 and Table 2). Note that the xx.20 and xx.36 paths from Euston (in the Down direction), and the xx.00 paths (arriving in the Up direction) operated in a limited number of hours only, as these paths were created specifically for the GUT Euston-Stirling services and the Avanti Euston-Blackpool services, both of which were expected to only operate in certain hours. The xx.36 paths from Euston act as firebreak paths in the hours when they aren't utilised.

Down Direction			
Time	**Destination**	**Stock**	**Notes**
xx:02	North Wales	80x	
xx:07	Liverpool	390	2nd Liverpool
xx:10	Birmingham	390	
xx:13	Manchester	390	
xx:16	Birmingham	80x	Calls WFJ, MKC, RUG
xx:20	OA	MU Stock	Call MKC.
xx:23	Birmingham	350	Cross at Ledburn
xx:30	Scotland	390	
xx:33	Manchester	390	
xx:36	Blackpool	EPS Stock	Combines with xx:20 at MKC.
xx:40	Scotland	390	via BHM
xx:43	Liverpool	80x	
xx:46	Crewe	350	

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Down Direction			
Time	Destination	Stock	Notes
xx:53	Manchester	390	
xx:56	Birmingham	350	Cross at Ledburn

Table 1: Down direction Standard Hour pattern

Up Direction			
Time	Origin	Stock	Notes
xx:03	Liverpool	80x	
xx:06	Birmingham	390	
xx:09	Manchester	390	
xx:12	Scotland	390	
xx:17	Birmingham	350	Cross at Ledburn
xx:24	Crewe	350	Is on Headway with Scotland at Rugby
xx:27	Manchester	390	
xx:30	Liverpool	390	2nd Liverpool
xx:35	North Wales	80x	
xx:38	Scotland	390	via BHM
xx:41	Manchester	390	
xx:50	Birmingham	350	Cross at Ledburn
xx:54	Birmingham	80x	
xx:57-xx:00	OA	At least MU	

Table 2: Up direction Standard Hour pattern

The above timings suggest potential opportunities for paths to arrive in Euston between xx:57 and xx:00 and depart at either xx:20 or xx:36. The structure of the timetable is such that a non-tilt stock not capable of using the Enhanced Permissible Speed on West Coast South can depart at xx:20 with a call in Milton Keynes Platform 5 where it is overtaken by the xx:30 and xx:33 departures where it ends up running in the paths of the xx:36 departure. This means that either the xx:20 or xx:36 paths can be used if the intention is for the service to continue from Milton Keynes further north on the Fast Lines but would not work with both paths accommodating long-distance services in the same hour.

Work has been connected within the Northwest and Central (NW&C) region to look at the committed rights of trains within these paths and if they are currently operational. This assessment is intended to demonstrate where the remaining timetable capacity exists on West Coast South within the current timetable structure.

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The following tables show that capacity does potentially still exist within the current timetable structure, between London Euston and Rugby. However, linking them to form a coherent service to/from locations beyond Rugby, may prove a challenge due to capacity constraints elsewhere.

Down Direction (0600-2000)				
	Free		Dec 24 Timetable	Service in front (T-3 punctuality at Rugby)[1]
06:20	No, WMT	Could go at 06:02 in No right Blackpool path	Blackpool Not in Dec 24 A Liverpool In Dec 24	
06:36	No, Scotland			
07:20	No, GUT			
07:36				
08:20	Yes			
08:36				1H63 (47%)
09:20	No, Blackpool	Blackpool has No rights	Not in Dec 24	
09:36				1H64 (57%)
10:20	No, GUT			
10:36				
11:20	Yes			
11:36				1H66 (58%)
12:20	Yes			
12:36				1H67 (63%)
13:20	No, GUT			
13:36				
14:20	Yes			
14:36				1H69 (64%)
15:20	NMT			
15:36				
16:20	No, GUT			
16:36				
17:20	WMT	WMT Cross to SL at MKC so xx:36 path can be used	In Dec 24	
17:36	Yes			1H72 (36%)
18:20	WMT	WMT Cross to SL at MKC so xx:36 path can be used	In Dec 24	
18:36	Yes			1H73 (27%)
19:20	Yes			
19:36				1H74 (35%)

Table 3: Down Direction potential opportunities in Dec 22 Concept Train Plan, existing usage and associated rights

[1] On the WCML south of Rugby, punctuality based on June '24 timetable as at 20.10.2024

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Up Direction 0600-2200				
	Free		Dec 24 Timetable	Service in front (T-3 punctuality at Watford Jn)[1]
06:58	No, Sleeper		In Dec 24	
07:58	No, Lancaster		In Dec 24	
08:58	No	08:58 path from Manchester only has rights in December 2024	In Dec 24	
09:58	No, GUT			
10:58	Yes			9A31 (46%)
11:58	(GUT is on hour)			
12:58	No, Blackpool	Blackpool has No rights	Not in Dec 24	9M50 (36%)
13:58	NMT			
14:58	(GUT is on hour)			
15:58	(Blackpool on Hour)	Blackpool has no Rights	Not in Dec 24	9A53 (59%)
16:58	Yes			1B49 (37%)
17:58	No	ECS move to enable 2B51 (WMT) operates in this slot		
18:58	Yes			1Y46 (46%)
19:58	(GUT is on hour)			
20:58	Yes			1A72 (41%)
21:43	No, Chester	Chester has no rights	Not in Dec 24	
21:58	Yes			9M59 (33%)

Table 4: Up Direction potential opportunities in Dec 22 Concept Train Plan, existing usage and associated rights

This leads to 9 possible paths per day in each direction (Up and Down) at Euston on the West Coast, after the inclusion of GUT and the 2nd Liverpool service that both have rights. No consideration was given to whether these services could be platformed and accommodated robustly at London Euston at these times. However, the original December 2022 plan was planned to operate with 15 platforms due to uncertainty around the future availability of platform 16 (which was previously planned to be temporarily taken out of use as part of the High Speed 2 construction works).

If platform 16 was to be utilised it would allow greater flexibility; however, current HS2 work at Euston is still paused against the original scope which, if re-started, would see the temporary removal of P16 to support construction. It may be the case that impending decisions concerning HS2 and Euston will mean that works have less impact on the station, but this is subject to instruction from Government once reviews and the decision-making process have concluded.

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Down Free paths 0600-2000	Down Paths against a train with no Rights 0600-2000	Total
7	2	9
Up Free Paths 0600-2200	**Up paths if no rights train removed 0600-2200**	**Total**
5	4	9

Table 5: Potential timetable capacity (quantum)

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Additional Considerations

The above assessment shows the capacity that potentially exists within the current SX timetable structure between London Euston and Milton Keynes. However, it does not consider the performance implications if some, or all, of this capacity was used. The quantum of 13 trains per hour on the Fast Lines, with the occasional increase to 14 tph, was modelled during the ESG and shown to have better performance than the December 2019 timetable; however, the performance modelling conducted looked at a full day. Therefore, the impact on performance of the increased trains per hour in the hours the GUT services ran would be diluted across the day. The modelling suggested that the quantum of services in the December 2022 Concept Train Plan was the maximum that could be robustly accommodated without causing an unacceptable detriment to performance.

High-level commentary on the performance risk of utilising timetable capacity opportunities against the June 2024 timetable is included in Appendix A.

In addition to the train performance considerations, passenger flow considerations at Euston Station should also be taken into account. Passenger flow at London Euston is currently a concern, with Network Rail having been issued an improvement notice in October 2023, by ORR, in relation to passenger surges and overcrowding. Passenger flow remains a concern, despite ORR having closed the improvement notice. The current level of service, which does not reflect all rights held by operators, has created allegations of unsafe situations arising during times of perturbation reflected in recent media reports:

- Rail Magazine, 07 October 2024 - https://www.railmagazine.com/news/2024/10/07/passengers-are-in-danger-at-london-euston-says-watchdog#:~:text=Passengers%20using%20London's%20Euston%20station,the%20sheer%20numbers%20of%20people.%E2%80%9D

- BBC News 08 October 2024 - https://www.bbc.co.uk/news/articles/cj31v6dgy3xo

- The Guardian 02 October 2024 - https://www.theguardian.com/business/2024/oct/02/overcrowding-at-london-euston-station-puts-passengers-in-danger

The combination of the introduction of new services driving performance concerns as well as an increase from new opportunities of passenger demand at Euston station will require scrutiny of the pedestrian flow to avoid increasing the challenges of managing pedestrian flow at the station.

Network Rail therefore intends to undertake an assessment based on the quantum of services within the December 2022 Concept Train Plan. There also remains a restricted number of platforms at London Euston, with no funded plans to re-introduce a 17th and 18th platform. Passenger flow is primarily focused on number of passengers at a station at a given time, with arrivals and departures rather than requiring knowledge of origin or destination. It will therefore be possible to achieve a good understanding of the risk profile based on the quantum of services and associated passenger numbers within the Concept Train Plan, forming a basis which will allow for qualitative assessment of any differences.

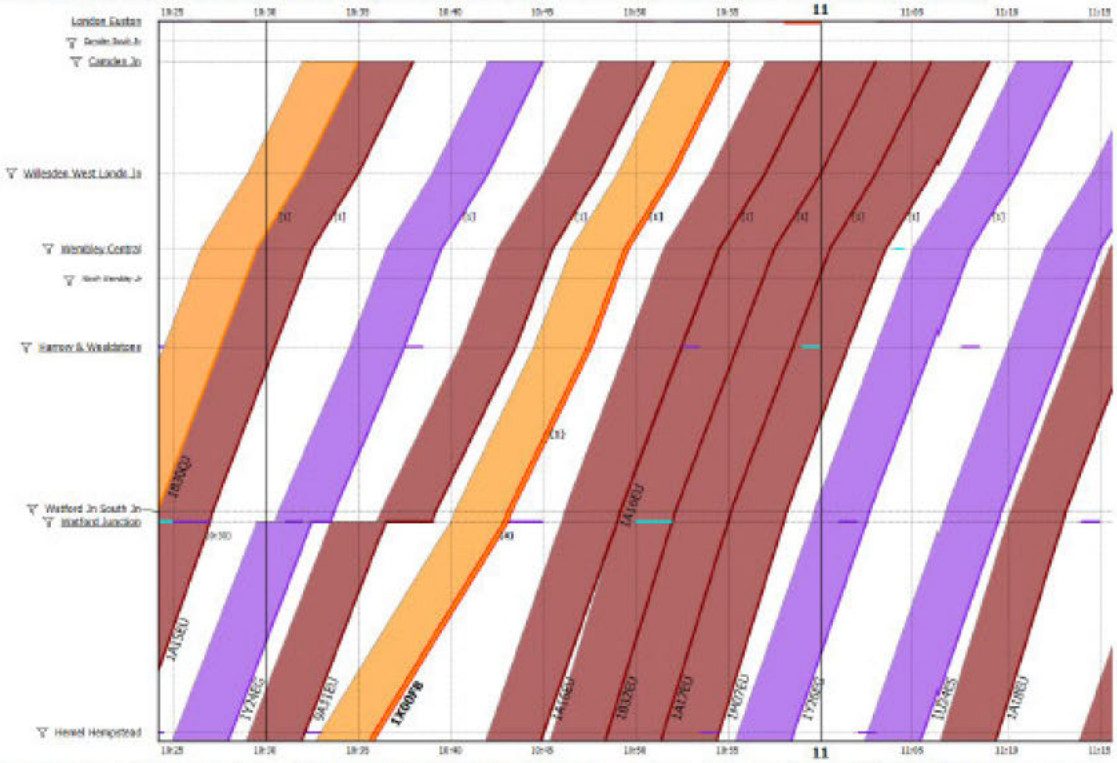
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Appendix A - June 2024 Timetable performance commentary on train slots

The following commentary describes the performance of services in the existing timetable, June 2024, which immediately precede the opportunities available for additional services to operate identified in the body of this report. This permits an approximate understanding of the level of performance risk associated with utilising each opportunity (hereafter referred to as "slots"). In the current timetable each one of these unoccupied slots helps to inhibit the spread of delay from late-running services to other services by providing a 'buffer' within the timetable structure. These unfilled slots in the timetable structure are often referred to as "firebreaks" and that term is used for brevity in this section. Not all rights held by operators are reflected in the current, June 2024, timetable.

In the train graphs which follow, the train slot being referred to in each section is highlighted and coloured orange. Some additional, currently unused, paths are also included (similarly coloured orange); these paths represent proxy paths for services which have rights already granted for future timetables. These paths are identified to test for potential interactions and conflicts with other aspirations.

1058 Arrival at London Euston (6-minute slot following 9A31 and preceding 1A16)



Making use of this arrival slot at London Euston requires a new service to follow 9A31 0700 Lancaster – London Euston from Rugby. 9A31 is planned to depart Rugby on a minimum margin behind 1A15 0835 Manchester Piccadilly – London Euston and then call at Milton Keynes Central and Watford Junction. 1A15 is on-time 16% of the time at Rugby and therefore frequently causes reactionary delay to 9A31. 9A31 consequently is more than 3 minutes late at Watford Junction 54% of the time.

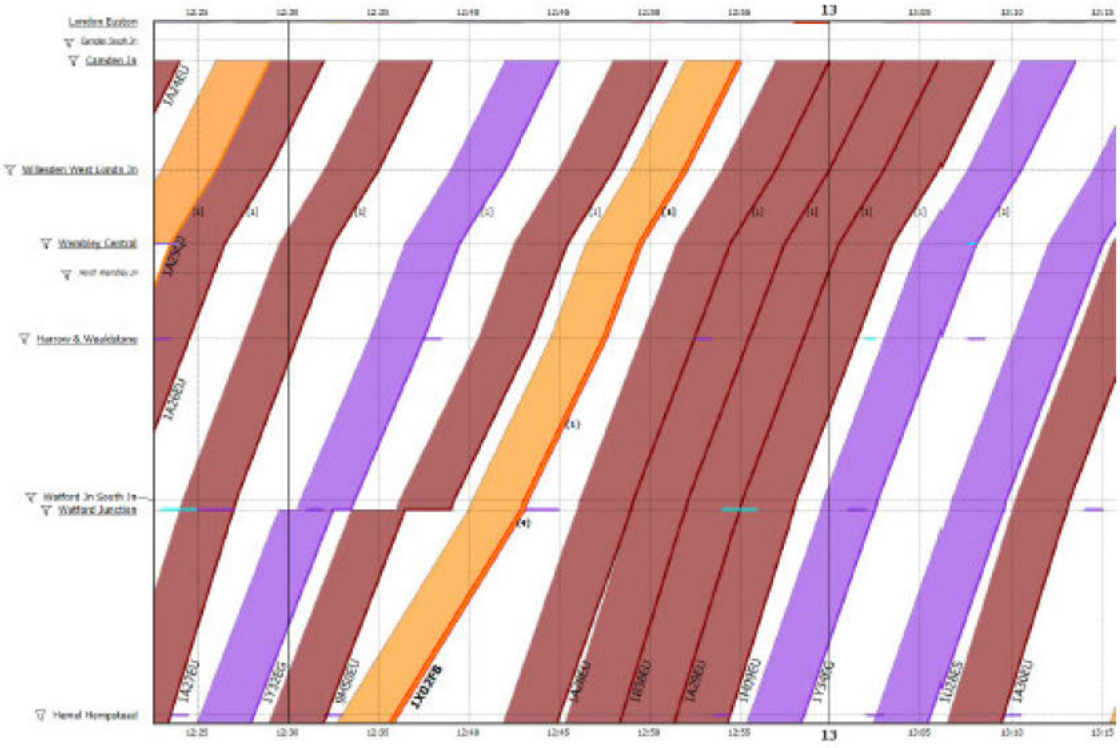
Filling this firebreak in the timetable structure means there is an increased risk of delay from 9A31 affecting the tightly-spaced flight of five trains 1A16, 1B32, 1A17, 1M07 and 1Y26 and causing five on-time failures at London Euston.

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1258 Arrival at London Euston (6-minute slot following 9M50 and preceding 1A28)

The slot which arrives at London Euston at 1258 follows a similar timetable pattern to the one that arrives at 1058. The difference is that 9M50 has started from Edinburgh rather than Lancaster. 9M50 itself follows 1A27 which is on-time 10% of the time at Rugby. This contributes to 9M50 being more than 3 minutes late at Watford Junction 64% of the time.

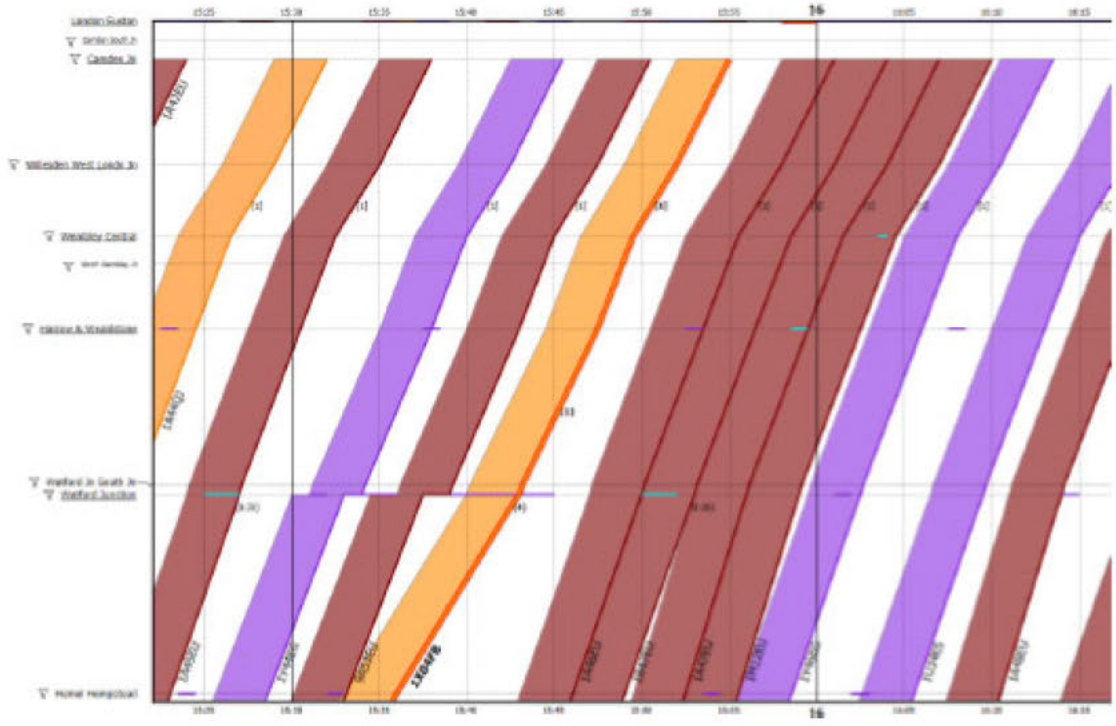
The risk of reactionary delay from 9M50 flowing through to the flight of 1A28, 1B38, 1A29, 1M09 and 1Y34 (all on minimum headways) by filling this gap is significant.



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1558 Arrival at London Euston (7-minute slot following 9A53 and preceding 1A46)

9A53 is more than three minutes late at Watford Junction 41 % of the time. This indicates the number of occasions when filling this slot would result in reactionary delay flowing to 1A46 and the flight of four services behind it.

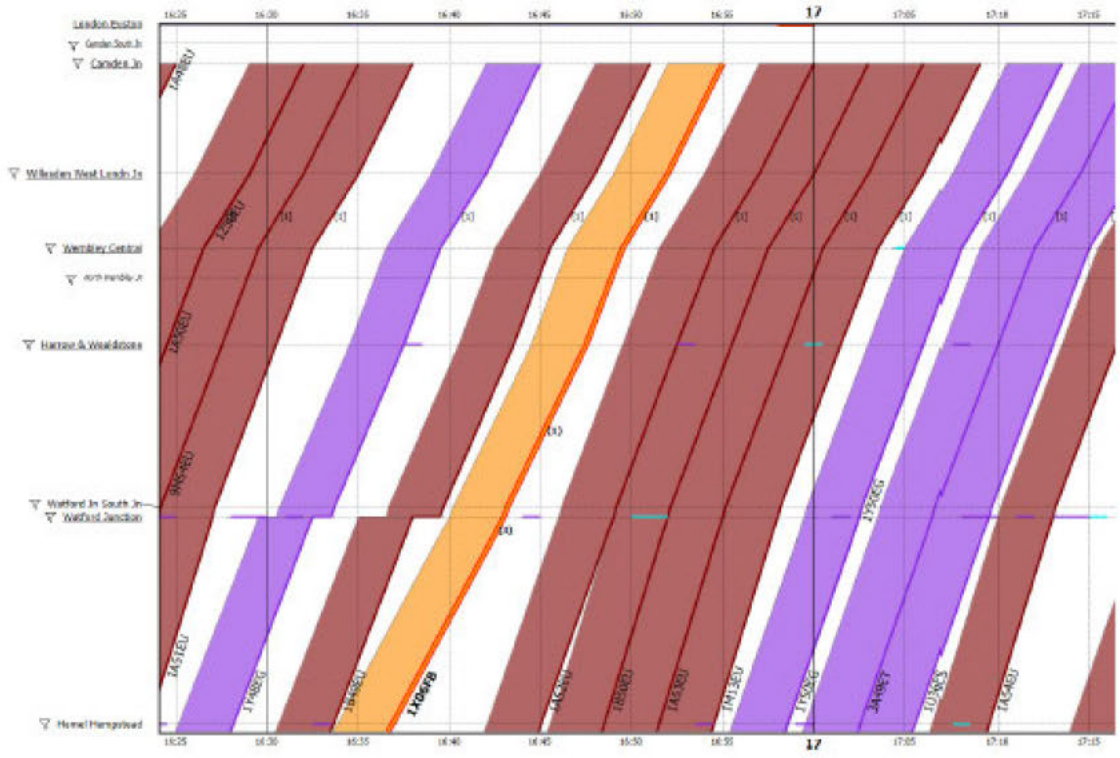


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1658 Arrival at London Euston (6-minute slot following 1B49 and preceding 1A52)

This timetable slot is similar to the previous three examples in that it is following a semi-fast service (in this case from Birmingham New Street) and precedes a flight of five services on minimum headways. The difference is that the timetable pattern arriving into Euston just before the evening peak is more intense in this hour because there is a high-priority Empty Coaching Stock (ECS) movement 4 minutes after 1Y50. This effectively means there is the flight of five services then a one-minute gap and this ECS movement which is minimum headway before another express services. It is nearly inevitable that any delay to 1A52 will ripple through 1B50, 1A53, 1M13, 1Y50, 3S49, 1U36 and 1A54 causing seven passengers services to arrive late at Euston.

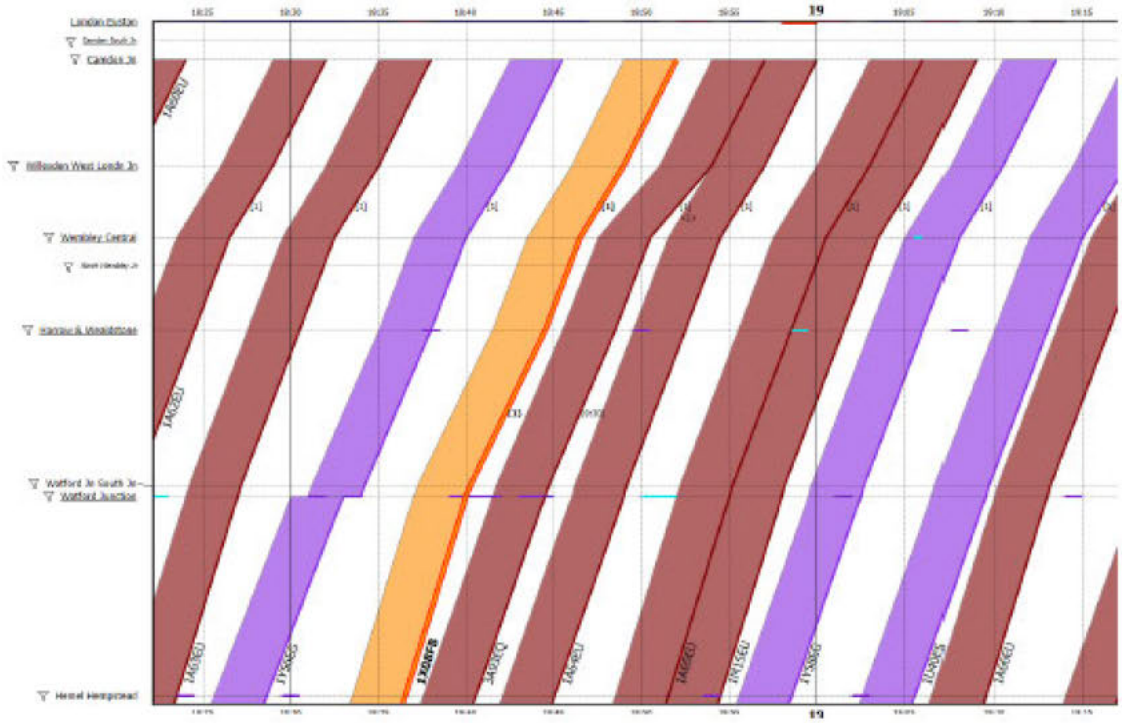
The firebreak in the timetable is therefore particularly important to maintain at this point. 1B49 is later than three minutes at Watford Junction 63 % of the time.



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1858 Arrival at London Euston (6-minute slot following 1Y56 and preceding 3A93)

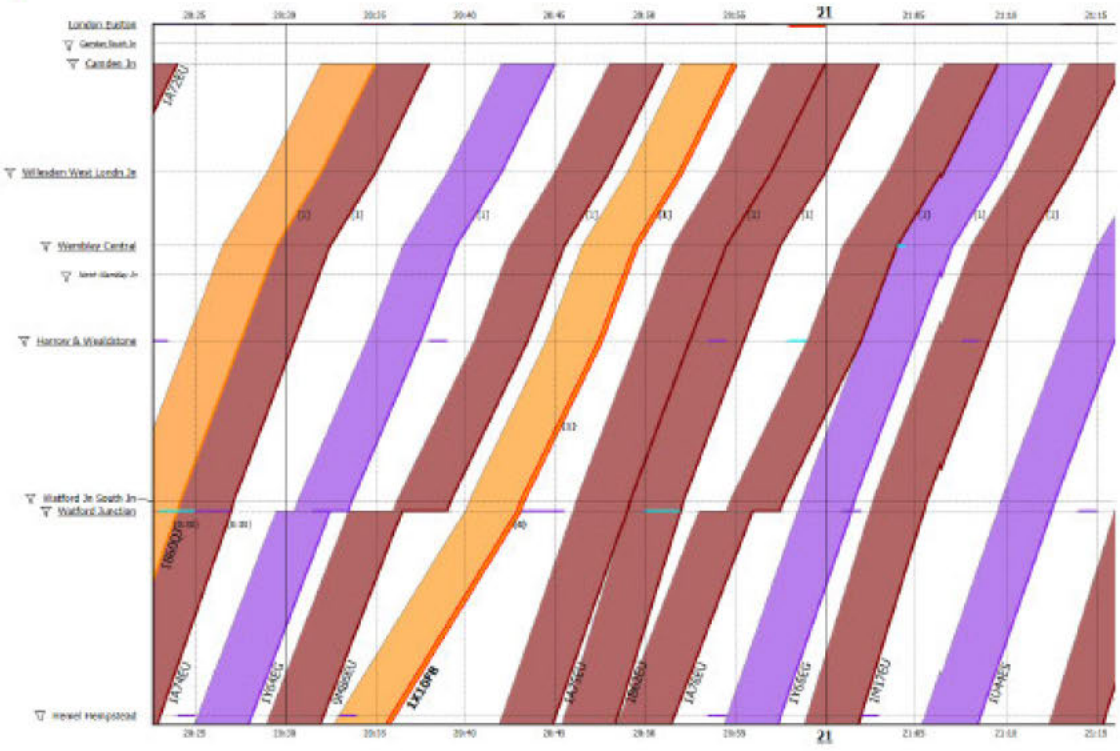
1Y56 is more than three minutes late at Watford Junction 54 % of the time. This slot is however lower risk than many of the others because the following service is empty stock that has a small gap before the following service (1A64) and then there is a firebreak between 1A64 and 1A65. The additional recovery available in the pattern reduces the likelihood of reactionary delay impacting as many services as the previous examples.



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2058 Arrival at London Euston (5-minute slot following 1A72 and preceding 1B60)

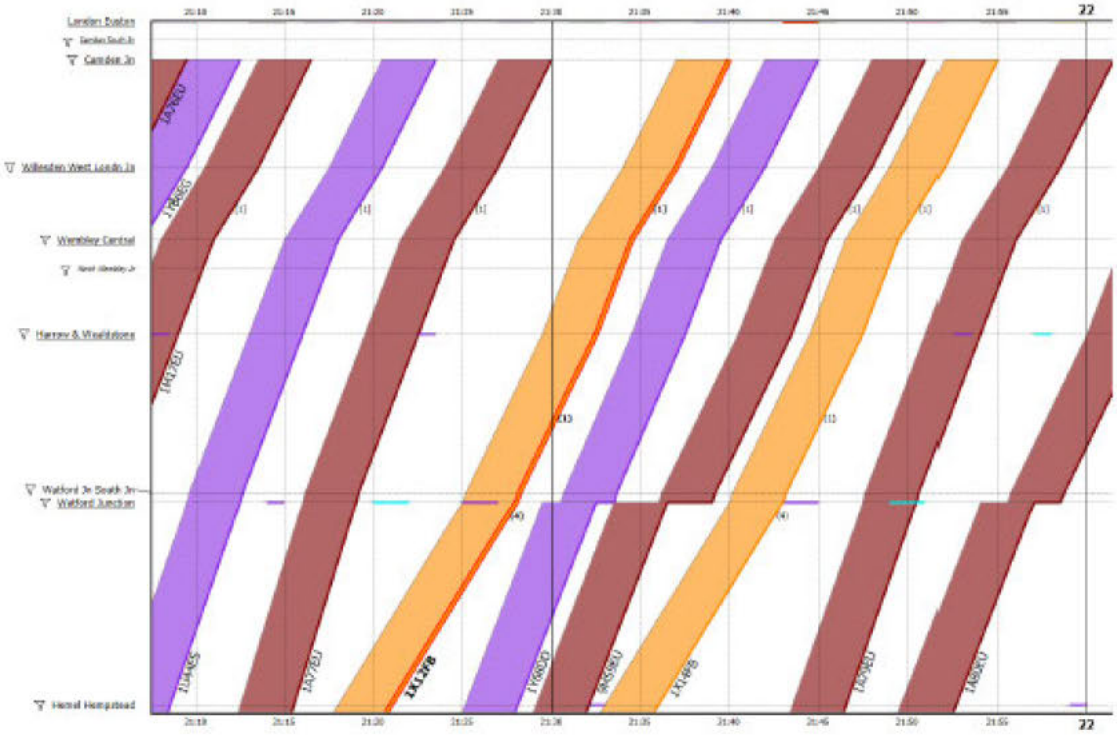
1A72 is later than three minutes 59 % of the time at Watford Junction. Whilst this slot is later in the day then the previous examples there still remains significant risk of increasing reactionary delay through filling it as this slot is the smallest gap of the Up direction slots examined in this analysis and is followed by two express services flighted together (1A75 and 1B62). Delays north of Watford Junction would also impact 1A76 and the two services which follow it (1Y66 and 1M17).



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2143 Arrival at London Euston (8½-minute slot following 1A77 and preceding 1Y68)

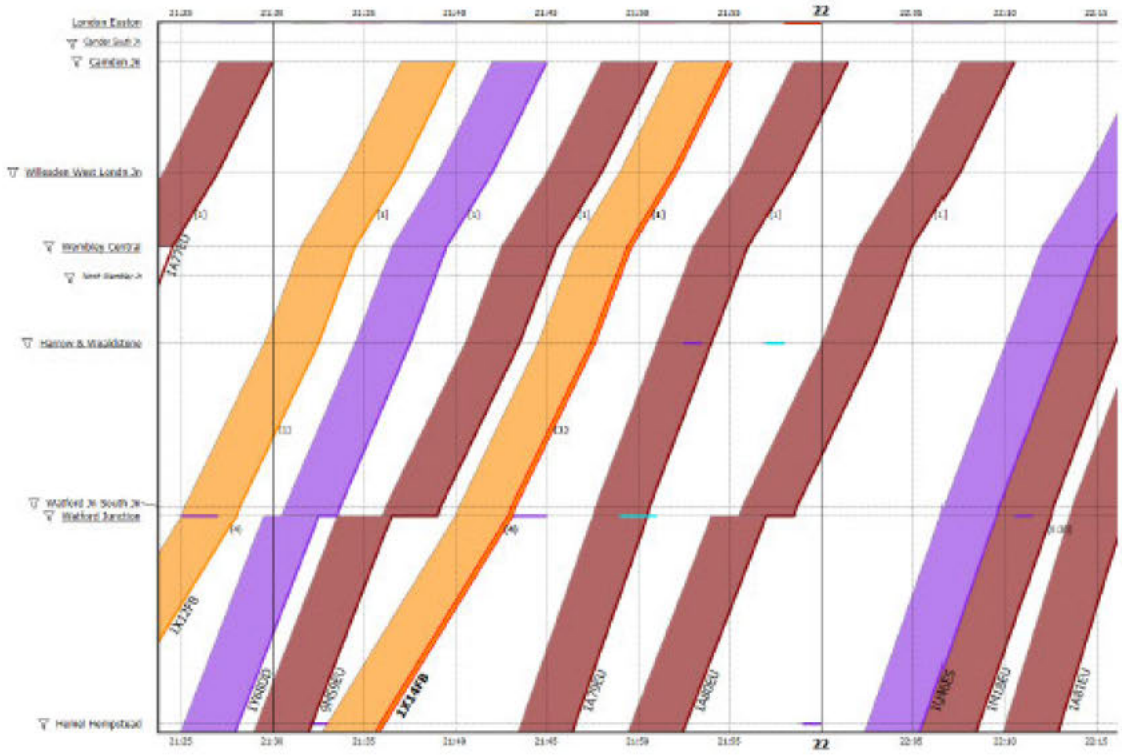
1A77 is more than three minutes late at Watford Junction 67 % of the time which is a high likelihood however this slot is lower risk south of Rugby than many of the others because it is larger and does not precede a group of flighted services on minimum headways.



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2158 Arrival at London Euston (7½ -minute slot following 9M59 and preceding 1A79

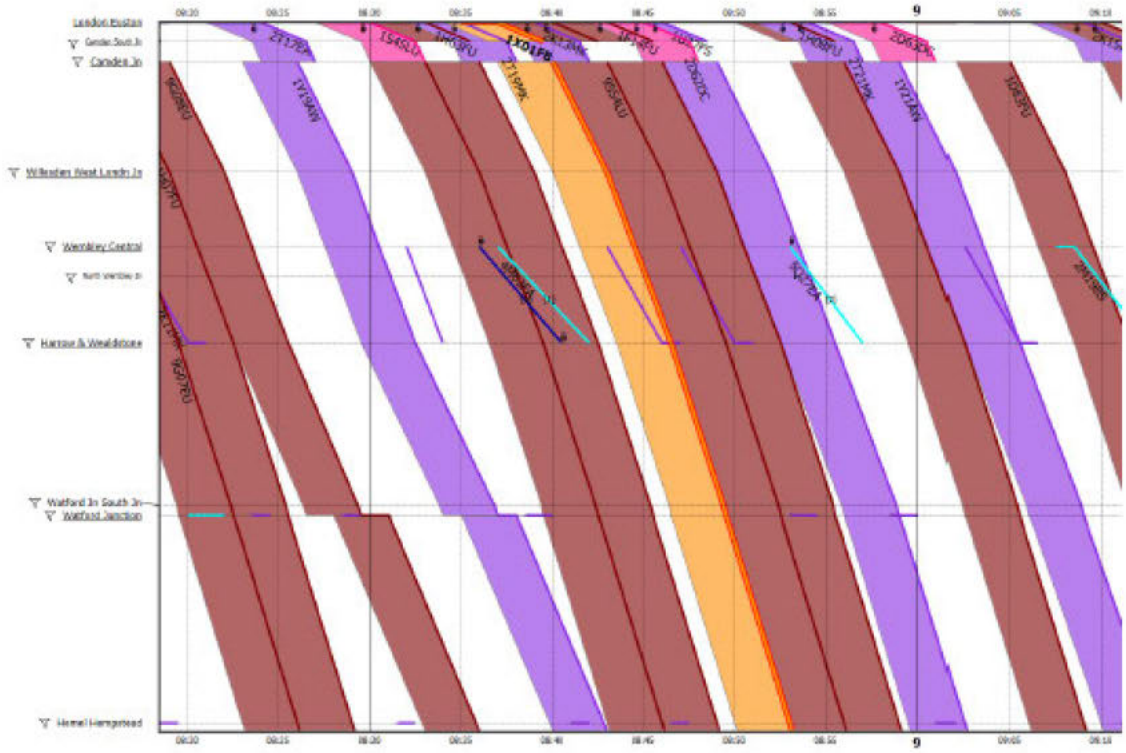
9M59 is more than three minutes late at Watford Junction 67 % of the time however there is recovery time around following services to reduce the chance of reactionary delay impacting multiple services meaning that collectively there is low risk south of Rugby to using this slot from a performance perspective.



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0836 Departure from London Euston (3½-minute slot following 1H63 and preceding 9S54)

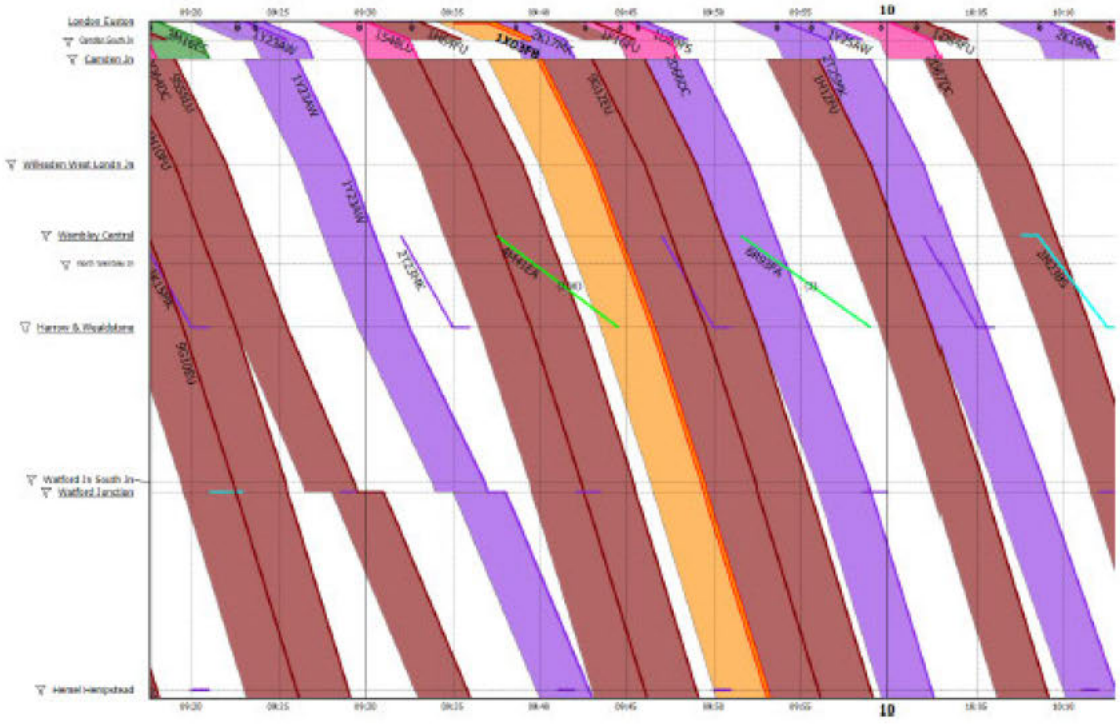
Filling in the slot behind 1H63 effectively takes two separate three-train flights (1Y19, 1S45, 1H63 and 9S54, 1F14, 1U27) and would form them in to one continuous flight of seven services on, or close to minimum headways at points on the south end of the WCML (south of Rugby). 1H63 is more than three minutes late at Rugby 53 % of the time and a contributing factor in that lateness is 1Y19 at the start of the initial flight being more than three minutes late by the time it cross to the Slow Lines at Ledburn Jn 41 % of the time.



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0936 Departure from London Euston (3½-minute slot following 1H64 and preceding 9G12)

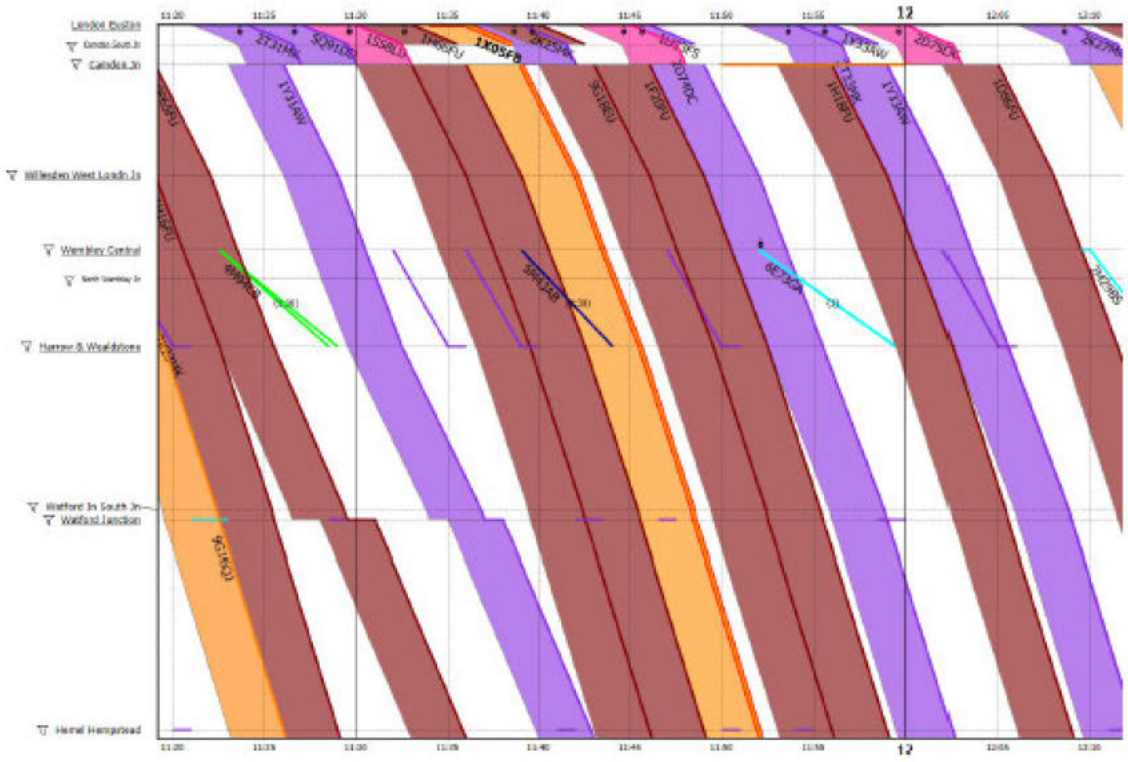
As per the previous Down slot, adding an 0936 departure from London Euston will create a continuous flight of seven service on or near minimum headway instead of two flights of three services. There will be very high likelihood of delay by the end of the flight. 1H64 is more than three minutes late by Rugby 43 % of the time.



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1136 Departure from London Euston (3½-minute slot following 1H66 and preceding 9G18)

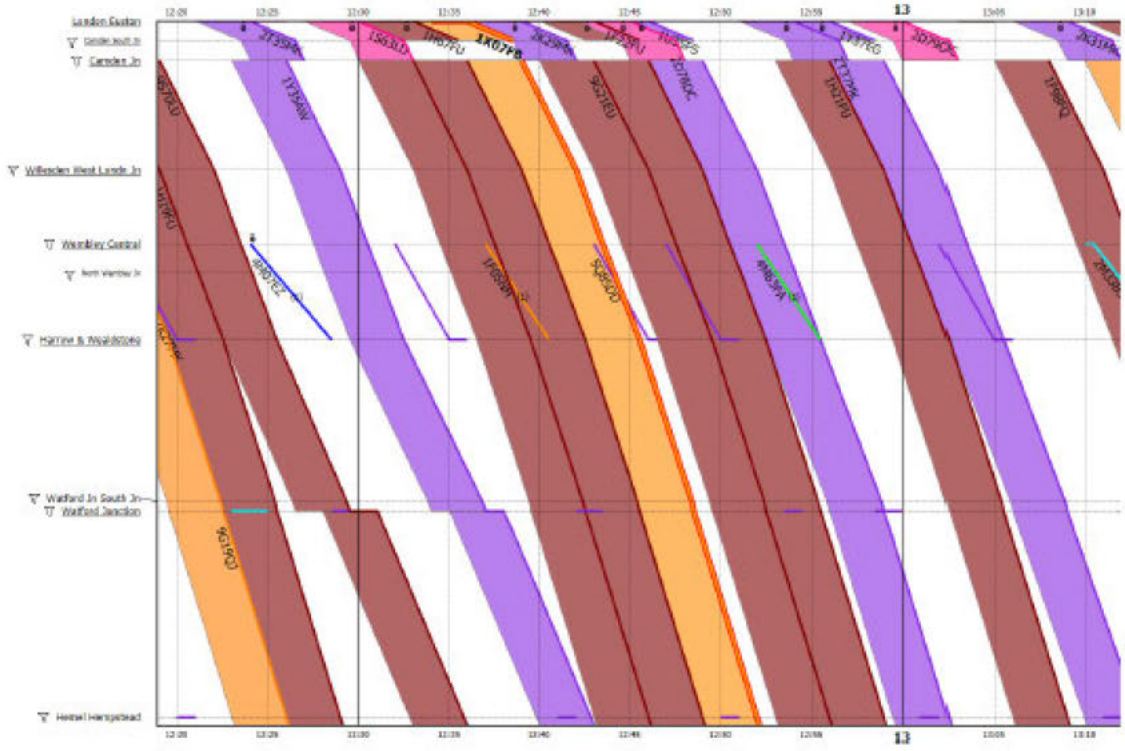
Continuing the theme of creating long flights of services on minimum headway using this slot will also create a continuous flight of seven services at or near minimum headway. 1H66 is more than three minutes late 42 % of the time.



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1236 Departure from London Euston (3½-minute slot following 1H67 and preceding 9G21)

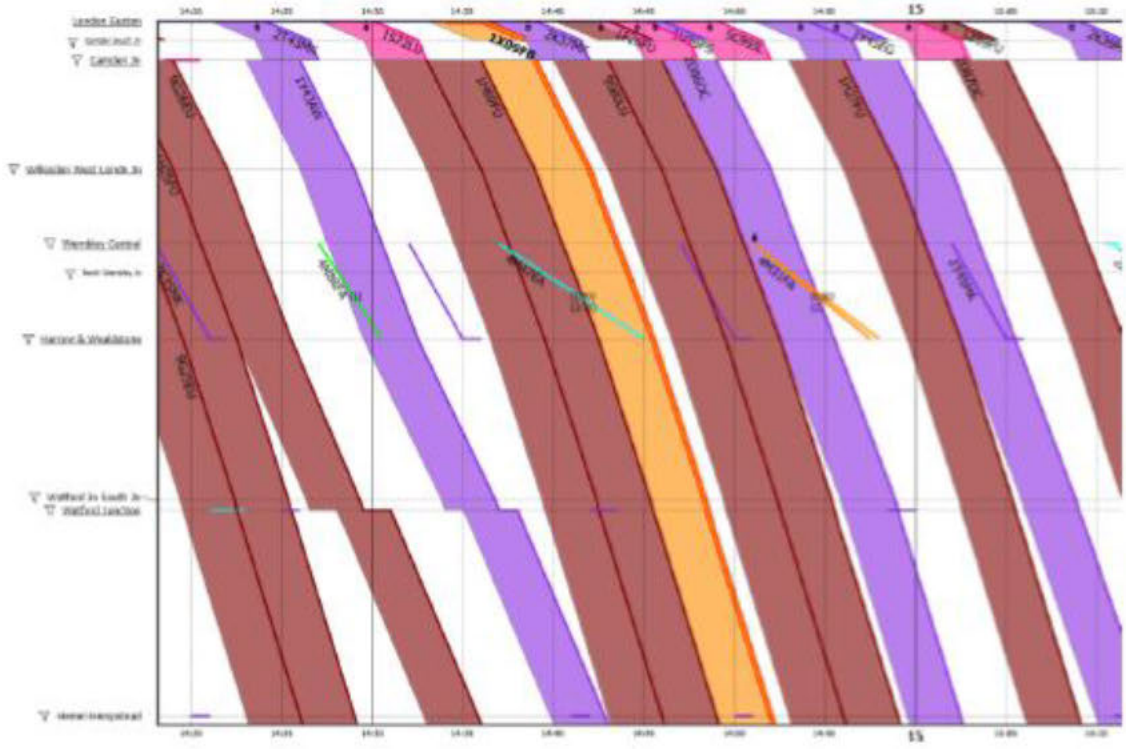
Due to the standard-pattern nature of the middle of the day, this slot again has very similar characteristics to the previous Down direction slots. Creation of a flight of seven services at or near minimum headway places the services at the end of that sequence at significant risk of reactionary delay. 1H67 is three or more minutes late by Rugby 37 % of the time. This is more often than one day in three.



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1436 Departure from London Euston (3½-minute slot following 1H69 and preceding 9S80)

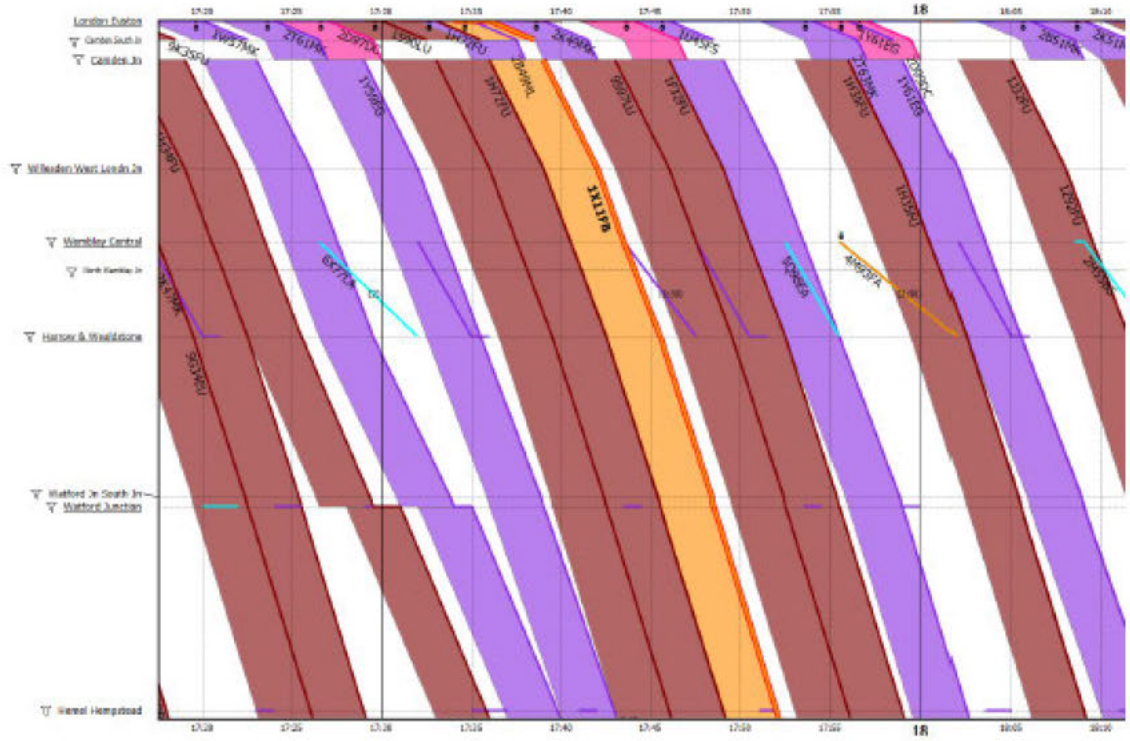
This slot has the same characteristics as the previous Down examples. 1H69 is three or more minutes late by Rugby 36 % of the time.



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1736 Departure from London Euston (3½-minute slot following 1H72 and preceding 9S97)

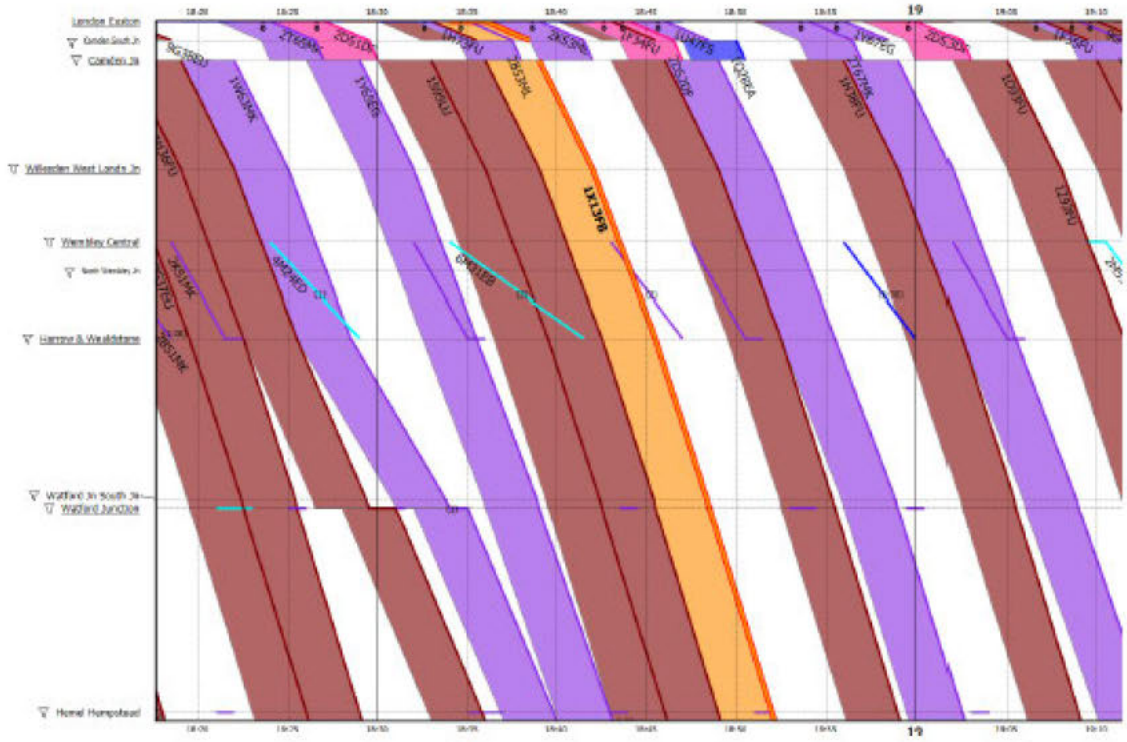
Due to the intensive nature of the evening peak departures from Euston this slot is actually high risk than all of the other Down examples referenced here. With the exception of a one-minute gap, filling this slot would create a continuous sequence of eleven services at or near minimum headway between Euston and Ledburn Junction. The effect of the existing first half of that sequence (before the firebreak) can be seen on the punctuality of 1H72 which has a notably poor punctuality record in June '24 and is three or more minutes late by Rugby 64% of days which is nearly two days in three. Given the low likelihood of the initial flight of seven services (9G34 – 1H72) avoiding reactionary delay it is practically guaranteed that filling this firebreak will result in delay to 9S97-1U45.



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1836 Departure from London Euston (7-minute slot following 1H73 and preceding 1F34)

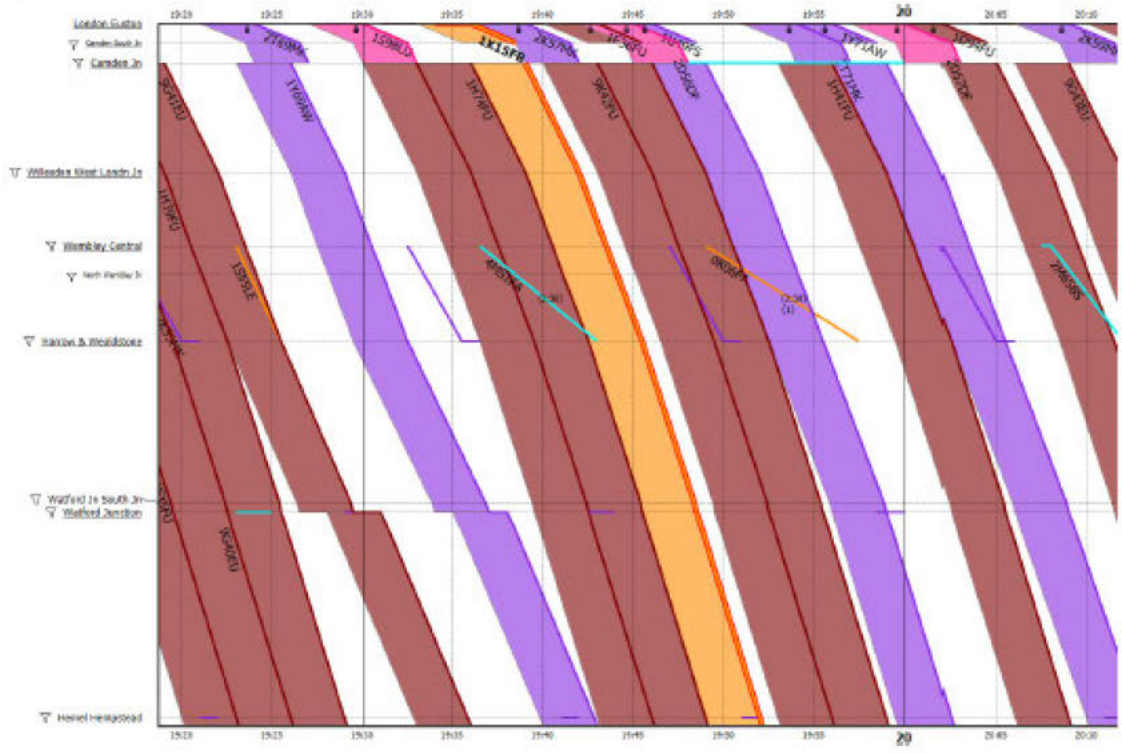
In a similar way to the previous 1736 example filling this firebreak will create a long sequence of trains at or near minimum headway on the Down Fast. In this case the slot itself is larger and the sequence created would be of ten services rather than eleven however with 1H73 being three or more minutes late 73% of the time by Rugby the challenges of successfully departing this sequence of trains through the throat at Euston on time by this stage in the evening peak are clearly illustrated. There would be still be additional risk of reactionary delay by filling this slot although not partly mitigated by the second unfilled slot behind it.



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1936 Departure from London Euston (3½-minute slot following 1H74 and preceding 9K42)

This slot returns to a similar pattern as 1436 and earlier slots where a seven-train flight of services on or near minimum headway would be created by filling it. 1H74 is three or more minutes late by Rugby 65% of the time so the chance of that reactionary delay occurring once the firebreak has been filled is significant.



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Appendix D - Network Rail Infrastructure Limited Representations for the 39th Supplemental Agreement submitted under Section 22A of the Railways Act 1993 for the Track Access Contract between Network Rail Infrastructure Limited and First Trenitalia West Coast Rail dated 01 December 2022

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BY EMAIL ONLY

21 April 2026

Dear [redacted]

Network Rail Infrastructure Limited Representations for the 39th Supplemental Agreement submitted under Section 22A of the Railways Act 1993 for the Track Access Contract between Network Rail Infrastructure Limited and First Trenitalia West Coast Rail dated 01 December 2022

This letter provides representations from Network Rail Infrastructure Limited (Network Rail) for the 39th Supplemental Agreement (SA) submitted under Section 22A of the Railways Act 1993 for the Track Access Contract (TAC) between Network Rail and First Trenitalia West Coast Rail (Avanti) dated 01 December 2022.

The application was submitted by Avanti to the Office of Rail and Road (ORR) on 30 March 2026 and included the Form P and a draft Supplemental Agreement. ORR wrote to Network Rail on 30 March 2026 requesting its representation on this application.

Avanti is seeking the following firm access rights from 17 May 2026 to 14 December 2030.

- Chester-London Euston: 1 firm Weekday right
- London Euston-Blackpool North: 1 firm Off Peak and 1 firm Saturday right
- Blackpool North-London Euston: 1 firm Off Peak and 1 firm Saturday right

The purpose of this representation is to provide ORR with Network Rail's position on this Section 22A application. Network Rail can confirm that, based on the facts, data and evidence outlined in this representation, it is not supportive of this application. Our rationale for not supporting this application is explained in the following sections.

Where there are a number of applications seeking capacity at the locations referred to in this letter, the basis of our support of applications either in total, or in part (as can be determined by reading the relevant representations), may have a connection to our position on all other applications at that location.

Competing and/or complex track access applications

As part of the Competing and/or Complex applications workstream Network Rail submitted two General Representation letters to ORR as follows:

- WCML General Representation dated 07 February 2025
- WCML General Representation dated 25 April 2025

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Alongside these General Representation Letters as part of the workstream, Network Rail also submitted a separate letter to ORR around the use of firebreak paths, in response to an ORR request for information, as follows:

- Firebreaks and performance on the West Coast Main Line ('WCML') dated 4 February 2026

These General Representation Letters were supplement letters to the final representation letters for each unsupported track access application which were submitted by Passenger and Freight operators further to ORR's letter to Industry on 24 April. ORR has since directed on the majority of these applications, and the outstanding application which ORR are yet to direct on is the TfW 28th Supplemental Agreement.

Whilst this application is not part of that workstream there are elements of the general representation letters for WCML which are relevant to this application and, where applicable to particular sections of this letter, references to and/or extracts from those letters will be made.

Background to the Application

Network Rail has previously provided representations on these access rights when they were included in Section 22A applications, submitted in response to ORR's letter dated 24 April 2024, for the December 2025 timetable.

The additional Weekday Chester-London Euston right was included in the 17th SA and addressed in Network Rail's final representation letter dated 20 June 2025. Network Rail did not support the access right at that time.

The London Euston<>Blackpool increases were included in the 3rd SA and addressed in Network Rail's final representation letter dated 20 June 2025. Network Rail did not support these access rights at that time.

Network Rail had outlined our reasons for not supporting these rights within these final representation letters. Within the representation letters for the 3rd and 17th Supplemental Agreements, Network Rail had highlighted the key reason for not supporting the access rights was due to:

- Both the Chester and Blackpool services would introduce additional services onto the fast lines of the WCML South, and as stated in our representation letter of 20th June 2025, the WCML is already operating at below expected performance levels, and therefore introducing additional services would risk a further deterioration to network performance.
- The aspiration to run the Chester to London Euston service also highlighted conflicts with the First Rail Stirling services which were due to commence passenger operation in December 2025. As part of the timetable production process, the conflicts have since been resolved through the timetable validation process.

The rights requested within the 39th Supplemental Agreement are identical to the rights Avanti had applied for within the 3rd and 17th Supplemental Agreements. The concerns Network Rail has highlighted around performance remain unchanged, and issues we had highlighted with capacity and power supply have since evolved and these are discussed further within this letter. Within ORR's decision letter for the rights for the 3rd and 17th Supplemental Agreements, ORR concurred with Network Rail's position of not supporting the rights as they would occupy one of the paths identified by Network Rail as critical for managing performance on the WCML South fast lines, and the contingent rights Avanti previously held were not granted beyond their expiration date of December 2025.

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Avanti had recently included the same rights in the 35th Supplemental Agreement which was submitted to Network Rail to assess in December 2025. This application contained the above mentioned rights, alongside a Sunday Crewe to London Euston right. Network Rail's position on the rights remained unchanged as per our representations sent to ORR on 20 June 2025.

Network Rail was supportive of the additional Sunday Crewe to London Euston right on a contingent basis for one timetable period up to December 2026. That 35th SA application was progressed with the Sunday Crewe to London Euston right only.

Avanti therefore decided to progress the rights Network Rail was unsupportive of in the 39th Supplemental Agreement as a Section 22a application which has now been consulted with Industry consultees and submitted to ORR to review and determine.

Furthermore, Network Rail's review of this application highlighted that further issues with capacity and accommodating the rights alongside existing and aspirational Freight services, could be problematic. The rationale for not supporting the rights is highlighted further down in the letter.

Interested Person(s)

Network Rail is not aware of any persons who would fall within the definition of "Interested Person" in paragraph 1 of Schedule 4 of the Railways Act 1993 in relation to this application made by Avanti.

Congested Infrastructure

The section on 'Congested Infrastructure' in Network Rail's General Representation letter dated 25 April 2025 is relevant to this application.

With effect from 11 May 2020 Network Rail declared the infrastructure on the WCML South Fast Lines between Camden South Junction and Ledburn Junction as congested infrastructure. Avanti's aspired rights would utilise this infrastructure.

This declaration was made under the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016, regulation 26 (2) because, following consideration of access requests received, Network Rail considered that this element of the infrastructure would be likely to become congested during the December 2020 timetable period. Consequently, Network Rail initiated a WCML Industry Planning Group (IPG) in May 2020, which was tasked with considering options for generating additional capacity and improved performance. The IPG reported in January 2021 that a restructure of the WCML timetable could provide additional capacity and improved performance. The IPG therefore initiated a second phase of work to develop and evaluate options for a restructured timetable, which was ultimately delivered under the governance of the Event Steering Group (ESG) in December 2022.

As demonstrated in our representation of 07 February 2025, Network Rail has not been able to accommodate all applications seeking capacity on the WCML Fast Lines for the December 2025 timetable and beyond. As the declaration of congested infrastructure made in May 2020 remains active, Network Rail will not be reissuing a further declaration of congested infrastructure.

On 09 July 2024, Network Rail issued Early Indicator of Likely Congestion notices in relation to the following sections of the North West & Central network:

- Acton Lane feeding area
- Washwood Heath / Willenhall feeding area
- Crewe / Weaver feeding area

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These Early Warning Indicator notices related to the impact of capability constraints on known or likely applications for electric traction capacity. Having updated the power supply modelling as part of the May 2025 timetable onwards applications, Network Rail still has concerns in these areas.

This position remains unchanged, and as a consequence, Network Rail have expressed concerns around the planned introduction of additional electrical rolling stock, including freight operators planning to change their existing diesel rolling stocks to electric.

In addition, a Freight operator has now submitted a Section 22a application to ORR for additional access rights within this area.

Following these Early Warning Indicator notices being issued, Network Rail has since made a Declaration of Congested Infrastructure at both the Crewe/Weaver feeding area and Willenhall feeding areas. The Early Indicator of Likely Congestion for both Washwood Heath, Crewe and Acton Lane also remained in place, and these were notified to ORR and Industry Colleagues on 26 November 2025.

Capacity

Network Rail can confirm that the services sought within the application have been included in an Access Proposal by Avanti and formally been offered back by Network Rail as part of timetable offer for May 2026. However, as stated in our previous representation letter dated 25 April 2025, Network Rail does not currently support any additional firm quantum access rights on WCML South where related services will utilise the fast lines. Network Rail has been consistent with the position and have not been supportive of any additional access right requests for both the December 2025 and May 2026 timetable changes, with the exception of:

- The 0700 Manchester Piccadilly to London Euston weekday right which was sought within the 17th Supplemental agreement. Network Rail was supportive of awarding this as a firm right and this position, was outlined in our final representation letter for the 17th Supplemental Agreement dated 20 June 2025.

Network Rail has identified that whilst capacity exists to accommodate these services from May 2026 alongside other firm rights, there would not be capacity for all aspirations sought on the WCML South. As such, if Avanti wanted to obtain these firm access rights to run the additional Blackpool and Chester services, a reduction in existing rights and services would have needed to have been realised in order to facilitate Network Rail support for these rights. For example, Avanti recently had contingent access rights approved to run extended Blackpool services between Glasgow Central and London Euston, and in return for the May 2026 timetable. Both of these aspirations would not be able to be accommodated alongside each other within the timetable, and this would be a reduction in quantum that would need to have been explored in order for Network Rail to support these services.

It should be noted for transparency that these Glasgow extensions were also included within the 3rdSupplemental Agreement, and Network Rail did not support these aspirations either. ORR had disagreed with this position, and were supportive of Avanti being awarded contingent rights on a time limited basis.

Furthermore, aspirant open access applications which were seeking new rights to run services on the WCML South (First Rail Stirling Rochdale & WSMR) are still awaiting direction from ORR.

The decision to not support any additional WCML South rights where services utilise the fast lines, is on the basis that the utilisation of any theoretical 'spare' capacity would have a significant detriment to performance as demonstrated in the WCML general representation letters. Network Rail has provided

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evidence on capacity and performance in our two letters of representation on the WCML, dated 07 February 2025 and 25 April 2025, and our position is that the current quantum of fast line services, combined with the realities of operating a mixed-traffic railway, already presents significant performance challenges and is contributing to a level of network performance which is below expected levels.

The capacity assessment provided with the representation dated 07 February 2025, was completed for the fast lines on the section of WCML between London Euston and Rugby. When completed, it could not be assumed that paths identified on that section would be available beyond Rugby to accommodate the access rights from their origin or to their destination. The capacity assessment did not consider ancillary moves required for operators to run their services.

Following this, end to end capacity assessment and attempted deconfliction was undertaken as part of the production for the December 2025 timetable. This assessment was part of Network Rail's December 2025 timetable production.

Network Rail had outlined our position on capacity availability and our stance on supporting additional access rights to operate on the fast lines of the WCML South in our final representation letters for the 3rd and 17th Supplemental Agreements dated 20 June 2025. These services (related rights) have not been advertised in the public timetable for May 2026.

Network Rail has remained consistent in our position on not supporting these rights and our position has remained unchanged against what was outlined within the representation letters for the 3rd and 17th Supplemental Agreements. Coupled with the general representation letters sent to ORR, Network Rail views this evidence as providing a firm position of our views on capacity availability for these services.

Other Aspirations on the WCML

This application has the potential to interact with a number of other known aspirations along the WCML South Fast Lines, applications which have already been submitted for industry consultation and/or to ORR including:

- First Rail Stirling Limited Section 17 application for London Euston <> Rochdale services,
- Liverpool & South Wales Railway (LSWR) Section 17 application for Liverpool Lime Street
- Cardiff services
- Wrexham, Shropshire and Midlands Railway Company Limited (WSMR) Section 17 application for Wrexham General <> London Euston services.
- Avanti 36th Supplemental Agreement Section 22a application for London Euston <> Liverpool services

Passenger Flow at Euston Station

In our general representation letter of 07 February 2025, we highlighted the importance of Passenger flow at Euston Station. As stated in that general representation, conclusions showed that Euston station is vulnerable to disruptions associated with delays and cancellations, as well as common cause variance in call to board announcements. The data provided in that representation suggests that, even under the existing demand and timetable, the concourse design does not lend itself to accommodating spikes in demand well. In the short run, introduction of additional services at London Euston may contribute to poorer passenger experience in the concourse. Additional services may limit the station's ability to cope with common cause variance in train service, such as delays to boarding and departure. This means that the station has less resilience to demand or operational fluctuation.

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Network Rail's position as stated in that general representation letter remains unchanged, and awarding these additional access rights would exacerbate the passenger flow issues as highlighted within that letter. Furthermore, this is further underpinned with our reasoning for not supporting these additional access rights as set out within this general representation letter.

Power Supply

As stated in the General Representations on West Coast Mainline (WCML) South dated 25 April 2025, Network Rail has undertaken a comprehensive power supply modelling exercise to assess the impact of accommodating all outstanding access proposals for additional electric services against the rights already held by operators (both passenger and freight), on the network's traction power supply capability.

Network Rail is currently seeing an increased traction power demand across the network due to a combination of aspirational new services using electric rolling stock, in addition to a gradual introduction of electric, bi-mode, and tri-mode trains replacing services previously operated using diesel rolling stock. These actions, if uncontrolled (and without supporting investment) would lead to over demand on the overhead line power supply system and could result in Network Rail not being able to discharge its Network Licence Conditions and operate a safe and reliable railway. As stated in the General

Representations on WCML South dated 25 April 2025, "Due to the nature of power capacity Network Rail may need to impose further operational controls and restrictions on the use of electric or bi-mode trains (which follow existing procedures) and/or may need to object to the introduction of further electric/bi-mode trains where there is not the requisite power capacity".

Due to power capacity constraints on the WCML, Network Rail has been unable to fully accommodate all operator Access Proposals for the December 2025 timetable, and as a result issued a Declaration of Congested Infrastructure for the Weaver feeding area, between Weaver Junction and Crewe Neutral Section (All Lines) on the West Coast Mainline, on 26 November 2025. Power supply upgrades are planned but are currently unfunded and not expected to be completed until 2031 at the earliest. Network Rail therefore cannot support additional rights for electric services in the affected area until these upgrades are completed.

As a result of the outputs of the power modelling analysis that was undertaken for the December 2025 and May 2026 timetable changes, providing additional access rights to Avanti from May 2026 to run services to and from Blackpool and Chester poses unmitigated risks related to performance of the infrastructure. The declaration of congested infrastructure at the Crewe and Weaver feeder areas strengthens Network Rail's views that the already aging assets cannot deteriorate any further with increased levels of usage. Providing new access rights for these services will increase the power supply risks highlighted and go against Network Rail's position of not supporting additional quantum of access rights within these locations. The existing control measures Network Rail have put in place are with a view to protecting the deteriorating assets from further risks, and awarding these access rights would go against Network Rail's reasons for not supporting.

Freight operators have aspirations to convert their existing diesel units on the network to run a electric rolling stock in this location. Within their existing track access contracts, Freight operators currently have a provision within their Track Access Contracts which stipulates:

" a Firm Right to use any equipment registered with RSSB's R2 system which has performance characteristics identical to or better than the Timing Load specified in the Rights Table for such Service."

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Network Rail holds concerns with Freight aspirations to remove their existing diesel units from the network and change their fleet to electric units.

Presently, the assets are about 7 years beyond maximum asset life and 17 years beyond mean life. The assets were installed in 1959, and they are currently at the maximum monitoring and maintenance levels and Network Rail are seeing routine trips of these assets (circa 17 times a month at the moment). This is gradually getting worse in both number and duration. As a result Network Rail expects to see at least one significant outage 2 days per year, and the assumption is that this would result in one failure a day in 2026/27 and this would increase exponentially if the relevant risks are not managed.

Network Rail therefore is not supportive of these rights until:

- The planned power supply upgrades are completed, and:
- Network Rail has carried out the necessary assessments regarding the planned Freight electric units on the network

Performance

Our performance concerns on the WCML South Fast Lines have been outlined in our two letters of representation, dated 07 February 2025 and 25 April 2025. Network Rail had outlined these specific concerns around performance in further detail in our representation letters to ORR for the 3rd and 17th Supplemental Agreements, dated 20 June 2025. Furthermore, our general representation letter dated 04 February 2026 further highlighted the challenges with performance on the WCML South

These set out the importance of having a timetable that is resilient. In particular, factors that underpin a resilient timetable plan include firebreaks in the timetable at key conflict points to prevent spread of delay from service group to service group. Any additional services introduced on the West Coast South fast lines would further increase the number of services planned on minimum headway, reducing the ability to withstand typical variations in train presentation without significant spread of delay between services and across service groups.

The 25 April 2025 letter sets out relevant performance information in the 'WCML Performance – London Euston to Rugby' section. As set out in this letter, Network Rail believes that any additional services on the Fast Lines on the WCML South would have a significant detrimental impact to performance where the current quantum of services, combined with the realities of operating a mixed traffic railway, already have significant performance challenges and contribute to delivering performance at a level below expected levels.

The proposed Train Slots could adversely impact network performance, including:

- Detrimental effects on overall network resilience, leading to increased risk of service disruption.
- Reduced adherence to performance benchmarks, impacting punctuality and reliability across the affected routes.
- Congestion issues at key junctions and high utilisation areas of the network, limiting operational flexibility and resilience.

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May 2025 Timetable Performance Commentary

Performance data and commentary relevant to London Euston, Watford Junction, Milton Keynes Central, Rugby, Nuneaton have been shared below. This evidence demonstrates that performance is an existing challenge in these locations prior to the inclusion of these additional Avanti services. The services would travel through multiple areas of current poor performance increasing the risk of transporting delay across the network.

London Euston

Performance at Euston in May 2025 is below the national On Time Working Timetable (WTT) performance, 62.3% Nationally compared to 59% at Euston. This location had an On Time WTT % of 59%.

Euston Performance by hour in May 2025, throughout the day, shows steady performance up to the morning peak where performances drops from 85% On Time between 0600-0659 to 51.8% On Time between 0800- 0859. Performance stays steady rising to a high of 60.5% from midday before dropping again in the evening peak from 1600 to a low of 48.8% between 1900-1959. Gradual recovery happens from 2000 to 2359.

Congestion delay shows that Willesden West London Jn <> London Euston suffers the most reactionary delay attributed to late running services. This is demonstrated in the West Coast Main Line South General representation, dated 07 February 2025.

Watford Junction

Performance at Watford Junction in May 2025 is below the national On Time WTT performance, 62.3% Nationally compared to 49.2% at Watford Junction. This location had an On Time WTT % of 49.2%.

Watford Junction Performance by hour in May 2025, throughout the day, shows steady performance up to the morning peak where performances drops from 85.3% On Time between 0500-0559 to 47% On Time between

0800-0859. Performance stays steady rising to 50% from midday before dropping again from 1500 to a low of 39% with no recovery until late evening.

Congestion delay shows that Bourne End Jn <> Watford Junction suffers the most reactionary delay attributed to late running services. The most prominent services involved are Avanti services impacting other Avanti services.

Milton Keynes Central

Performance at Milton Keynes Central in May 2025 is below the national On Time WTT performance, 62.3% Nationally compared to 38% at Milton Keynes Central. This location had an On Time WTT % of 38%.

Milton Keynes Central Performance by hour in May 2025, throughout the day, shows steady performance up to the morning peak where performances drops from 73.8% On Time between 0500-0559 to 38.9% On Time between 0800-0859. Performance stays steady throughout the day not rising higher than 40.6% before dropping again from 1500 to a low of 26% with no recovery until late evening.

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Congestion delay shows that Hanslope Jn <> Milton Keynes Central suffers the most reactionary delay attributed to late running services.

Rugby

Performance at Rugby in May 2025 is below the national On Time WTT performance, 62.3% Nationally compared to 40% at Rugby.

Rugby Performance by hour in May 2025, throughout the day, shows steady performance up to the morning peak where performances drops from 72.9% On Time between 0500-0559 to 34.2% On Time between 1100-1159. Performance stays steady throughout the day not rising higher than 41.1% before dropping again from 1500 to a low of 30.1% with no recovery until late evening.

Congestion delay shows that Rugby <> Nuneaton suffers the most reactionary delay attributed to late running services.

Nuneaton

Performance at Nuneaton in May 2025 is below the national On Time WTT performance, 62.3% Nationally compared to 37.8% at Nuneaton. Nuneaton Performance by hour in May 2025, throughout the day, shows steady performance up to the morning peak where performances drops from 70.5% On Time between 0500-0559 to 33.6% On Time between 1100- 1159.

Performance stays steady throughout the day not rising higher than 39.3% before dropping again from 1500 to a a low of 25.3% with no recovery until late evening.

Congestion delay shows that Nuneaton <> Rugby suffers the most reactionary delay attributed to late running services.

December 2025 Timetable Performance Commentary

Whilst performance on the WCML South has seen an overall improvement across the December 2025 timetable to this point, the existing challenges as set out in our previous general representation letters still remain and the inclusion of any additional services on the WCML South fast lines risk transporting delays across the network and decreasing performance metrics in an already poorly performing network.

Average On Time WTT performance at London Euston is still below the national On Time WTT performance, 60.7% nationally compared to 51.1% for Avanti. This is a slight improvement on the national average of 59% in May 2025, and still doesn't meet the required On Time target of 62.3%

Average On Time WTT performance at Watford Junction is still below the national On Time WTT performance, 51.5% nationally compared to 45.4% for Avanti. This is a slight improvement on the national average of 49.2% in May 2025, and still doesn't meet the required On Time target of 62.3%

Average On Time WTT performance at Milton Keynes Central is still below the national On Time WTT performance, 41.5% nationally compared to 31.3% for Avanti. This is a reduction on the national average of 38% in May 2025, and still doesn't meet the required On Time target of 62.3%

Average On Time WTT performance at Rugby is still below the national On Time WTT performance, 43.8% nationally compared to 39.9% for Avanti. This is a slight improvement on the national average of 40% in May 2025, and still doesn't meet the required On Time target of 62.3%

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Average On Time WTT performance at Nuneaton is still below the National On Time WTT performance, 42.5% nationally compared to 36.5% for Avanti. This is a slight improvement on the national average of 37.8% in May 2025, and still doesn't meet the required On Time target of 62.3%

In our General Representation letter sent to ORR on 25 April 2025 highlighted that the proposed new services by First Rail Stirling which were not expected to commence operation until December 2025, nor the outstanding additional Avanti services between London Euston and Liverpool were running. Whilst the First Rail Stirling services are yet to commence passenger operation, the planned introduction of these additional services on the Fast Lines is likely to have a further impact on performance. Network Rail's representation letter dated 07 February 2025 stated that as part of the December 2022 Event Steering Group, performance sensitivity testing to assess the impact of adding additional services was undertaken. The Network Rail position (previously expressed both during and following the December 2022 ESG) is that the clear performance delta between the sensitivity test outputs (both T-1 and T-3 metrics), and the specific risks highlighted for the Up Fast Line (between Rugby and London Euston) indicates that the quantum of Fast Line services contained in the December 2022 Concept Train Plan (an output of the ESG) had reached a critical threshold level in terms of manageable capacity utilisation, beyond which the introduction of any further services was likely to trigger a notable compromise to network performance through increased reactionary delay.

In our General Representation letter dated 25 April 2025 we stated that "For the benefit of passengers and freight users, it is Network Rail's view that Operational performance across all operators on WCML South needs to both recover to, and be sustained at, a higher level than current performance before additional train services, which don't have rights, are considered for inclusion into the timetable."

Our performance information and concerns on the West Coast Main Line (WCML) South Fast Lines have been outlined in our two letters of representation, dated 07 February 2025 ('Timetable Performance' section and Appendix C) and 25 April 2025 (London Euston to Rugby section). We have specifically set out the importance of having a timetable that is resilient, and factors that underpin a resilient timetable plan including firebreaks at key conflict points to prevent spread of delay from service group to service group, are of key importance.

Any additional services introduced on the West Coast South Fast Lines would further increase the number of services planned on minimum headway, reducing the ability to withstand typical variations in train presentation without significant spread of delay between services and across service groups.

Current performance metrics demonstrate that performance is not currently meeting expectations and is expected to decline further once all services which currently hold access rights, are running (as explained in our representation dated 07 February 2025).

Network Rail believes any additional services on the Fast Lines on the WCML South would have a significant detrimental impact to performance where the current quantum of services, combined with the realities of operating a mixed traffic railway, already have significant performance challenges and contribute to delivering performance at a level below expected levels.

Network Rail's position around the performance remains unchanged against what was highlighted in our previous representations to ORR. Performance on the WCML South is not performing at an optimal level and adding additional services risks performance metrics decreasing and the resilience of the timetable eroding further due to decreasing performance on the network.

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Conclusion

In this representation letter Network Rail has confirmed that it does not support this Section 22a application from Avanti to run additional services on the WCML South fast lines in the Blackpool to London Euston and Chester to London Euston due to performance and power supply issues. Our position has remained the same as per our previous representations for the 3rd and 17th Supplemental Agreements, and further outlined by our general representations to ORR.

The rights sought within this 39th Supplemental Agreement are identical to those contained in the 3rd and 17th SA applications where Network Rail provided final representations to ORR outlining our position on the access rights sought. ORR at that time had agreed with Network Rail's position on rejecting these access rights and the evolving issues with power supply and the pending decisions from ORR on aspirant open access applications strengthens our position of not awarding any additional access rights on the WCML South fast lines. Network Rail believes that awarding any additional access rights in these paths will pose significant detriment to network performance against an already poorly performing Region. This is combined with the mentioned capacity and power constraint issues which have been outlined.

We do not expect ORR to make a direction in support of these rights for the reasons we have outlined, but should it do so, we want to be clear that further discussion would be needed to discuss the implications this could have on network performance on the WCML South.

Please do not hesitate to contact me if there is any further information you require.

Yours sincerely,

[redacted]

Franchise & Access Manager, Network Rail Infrastructure Limited

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Appendix E - SRT Comparisons

Down - London Euston to Crewe

	390			80X-E			221T			222		
Location Name	**P/P**	**S/P**	**P/S**	**P/P**	**S/P**	**P/S**	**P/P**	**S/P**	**P/S**	**P/P**	**S/P**	**P/S**
London Euston		2½			2½			2½			2½	
Camden South Jn	½			½			½			½		
Camden Jn	3			3			3			3		
Willesden West Londn Jn	1½			1½			1½			2		
Wembley Central	2			2			2			2		
Harrow & Wealdstone	3		4	3		4	3		4	3½		
Watford Junction	4	5½		4	5½		4	5½		4		
Bourne End Jn (Herts)	3			3½			3			3½		
Tring	3			3			3			3		
Ledburn Jn	4½			5			4½			5½		
Bletchley	1½		2½	1½		2½	1½		2½	1½		2½
Milton Keynes Central	3	4½		3½	4½		3	4½		3½	5	
Hanslope Jn	6½			7			6½			7		
Weedon	6			6½			6½			6½		
Hilmorton Jn	½		1½	½		1½	½		1½	½		
Rugby	½	1		½	1		½	1		½		
Rugby Trent Valley Junction	2½			2½			2½			2½		
Brinklow	3½			4			4			4		
Attleborough South Jn	1		2	1		2	½		2	1		2
Nuneaton	6	7½		6½	7½		6	6½		7	8	
Amington Jn	4			4			4			5		
Lichfield TV North Jn (LL)	3½			4			4			4		
Rugeley North Jn	1½			2			2			2		
Colwich	4½		5	4½		5	4½		5½	4½		
Stafford	3	4½		3	4		3	4½		3		
Norton Bridge	5½			6			5½			6		
Madeley	3			3			3			3½		
Crewe Basford Hall Jn	1½		3	1½		3	1½		3	1½		3
Crewe												
TOTAL FOR NON-STOP	84½			89½			86			93		

FINAL

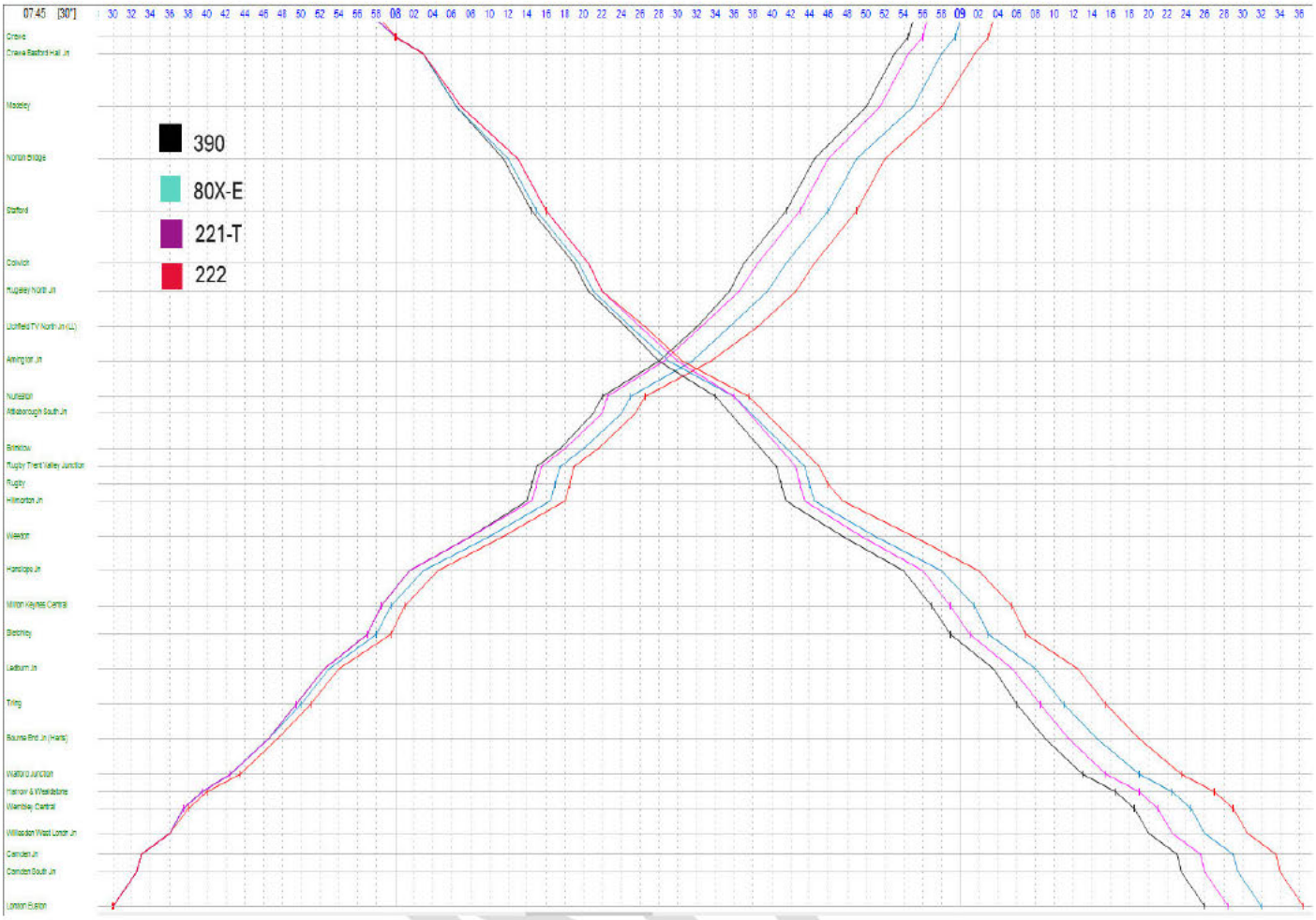
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Up - Crewe to London Euston

	390			80X-E			221T			222		
Location Name	**P/P**	**S/P**	**P/S**	**P/P**	**S/P**	**P/S**	**P/P**	**S/P**	**P/S**	**P/P**	**S/P**	**P/S**
Crewe	1	3		1½	3		1	3		1½	3	
Crewe Basford Hall Jn	3½			3½			4			4		
Madeley	5			5½			6			6		
Norton Bridge	3		4½	3		4½	3		4½	3		
Stafford	4½	5½		4½	5½		4½	5½		4½		
Colwich	1½			1½			1½			1½		
Rugeley North Jn	4			4			4			4½		
Lichfield TV North Jn (LL)	3½			4			4			4		
Amington Jn	6		7	7		8	6		7	7		8
Nuneaton	6½	9		7½	8½		6½	9½		7½	9½	
Rugby Trent Valley Junction	½		1½	½		1½	½		1½	1		
Rugby	½	2		½	1½		½	2		1½		
Hilmorton Jn	6			6½			6			7½		
Weedon	6½			7			6½			7		
Hanslope Jn	3		4	3½		4	3		4	3½		4½
Milton Keynes Central	2	3		1½	3		2	3½		1½	3	
Bletchley	4½			5			4½			5½		
Ledburn Jn	2½			3			3			3		
Tring	3			3½			3			3½		
Bourne End Jn (Herts)	4		5	4½		5	4		5	4½		
Watford Junction	3½	4½		3½	4		3½	4½		3½		
Harrow & Wealdstone	2			2			2			2		
Wembley Central	1½			1½			1½			1½		
Willesden West Londn Jn	3			3			3			3		
Camden Jn	½			½			½			½		
Camden South Jn			2½			2½			2½			2½
London Euston												
TOTAL FOR NON-STOP	84			90½			86½			95		

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