



System Operator

Alliance Rail

Edinburgh to Cardiff

Advanced Timetable Team

09/05/2024

V1.0

On the side of passengers and freight users

Overview

What was done and why

Analysis was jointly undertaken by Alliance Rail and the Advanced Timetable Team (ATT) to identify if there is capacity for the proposed Alliance Rail train services between Cardiff Central and Edinburgh, including examination of Cardiff, Birmingham New Street and Edinburgh platforming, and performance analysis at select locations. The proposed paths will pass through the geographic boundary of the not-yet implemented Wales and East Coast Main Line (ECML) Event Steering Group (ESG) timetables.

Alliance Rail and ATT worked collaboratively through screensharing workshops to resolve conflicts in the analysis databases. These were mainly focussed on the ECML ESG due this area having the highest number of conflicts. Prior to initiating the workshops, ATT identified 124 conflicts with the proposed schedules, and 167 potential solutions to reduce them, in the form of changes to other schedules in the timetable bases. Following the 8 2-hour workshops, this position improved to a reduced number of conflicts at 110, with potential solutions increasing to 218.

Key findings and recommendations

- The analysis found that during the remitted assessment timeline, timetable capacity for Alliance Rail's current proposed paths does not exist because they are not conflict-free against the base timetables.
- Implementing the Alliance Rail paths to the conflict-level achieved in this work required 218 changes to other timetabled services.
- Key locations used by the proposed route perform poorly in existing timetables and there were unresolved conflicts between the base timetables and the proposed Alliance paths.
- Cardiff and Edinburgh platforming was considered but not fully validated as unit diagrams were not provided for assessment.

Assumptions used

- Geographic scope – Cardiff to Edinburgh
- Timetable Planning Rules (TPRs) used – 2024 v4 Scotland, London North Eastern, East Midlands, North West and Central and Western & Wales
- Rolling stock – class 22x (221 or 222) with the assumed length of 117 metres for a 5-car formation
- Source timetables
 - Wales ESG (for the section of the route between Cardiff Central-Gloucester)
 - June 24 (for the section of the route between Gloucester-Landor Street)
 - ECML ESG (for the section of the route between Landor Street-Edinburgh), which included the additional CrossCountry Hydra paths considered as competing aspirations.

Key risks that could change the output of this study

- As this analysis considered the Wales ESG, June 24 and ECML ESG timetables, findings are subject to the successful implementation of the ESG Development Timetables.
- Performance data from existing timetables was used and does not account for changes to timetable structure as part of both ESGs.
- Only the services contained within the source timetables were considered as part of this work, for more details please refer to D.06.

- Any changes through the timetable change process, taking place twice a year could impact the findings of this analysis.
- Differences between schedules at handover points (Gloucester and Landor Street) between the three databases used for the analysis meant that certain conflicts could not be solved.
- Potential changes to other services proposed by this study would need to be consulted with the impacted operators to confirm they are viable, in particular for the changes that could be beyond the reasonable level of flexing expected during timetable production.
- Empty Coaching Stock (ECS) moves were not assessed for capacity at end locations due to unit diagrams not available at this point, which may impact platform capacity at Cardiff Central and Edinburgh stations.
- Resolution of conflicts identified in the Darlington area listed in C.02.10 are dependent on the Darlington station upgrade fully entering service by September 2025 with an associated timetable change.

References				
Ref.	Document Name	Document Ref. No.	Date	Rev
1.	Analytical Assurance Operational Policy (contained in IMS)	Assurance Policy	03/08/2022	Issue 2
2.	Timetable Planning Rules			2024 V4
3.	Engineering Access Statement			2024 V4

Terms	
Term	Meaning
ATT	Advanced Timetable Team
CTP	Concept Train Plan
EAS	Engineering Access Statement
ECML	East Coast Main Line
ECS	Empty Caching Stock
ESG	Event Steering Group
GWR	Great Western Railway
IMS	Integrated Management System
Junction margin	The minimum permissible interval in train planning between two trains that are performing conflicting moves at a location.
LNER	London North Eastern Railway
ML	Main Lines
NR	Network Rail
On Time (OT)	Performance metric counting trains that arrive early or within a minute of scheduled time at a location
ORR	Office of Rail and Road
Planning headway	The minimum permissible interval in train planning between two successive train schedules at a specific timing point on the same line in the same direction.

Platform reoccupation	The minimum permissible time between first train departing and second train arriving at a specific platform (where this is not controlled by planning headway values).
RL	Relief Lines
SRTs	Sectional Run Times
Station dwell time	The planning time for trains to be at a stand in a station. This must meet or exceed a defined minimum.
SWML	South Wales Main Line
TfW	Transport for Wales
Time to 3 (T3/T-3)	Performance metric counting trains that arrive on time or up to 3 minutes late against scheduled time at a location
Time to 5 (T5/T-5)	Performance metric counting trains that arrive on time or up to 5 minutes late against scheduled time at a location
TPR(s)	Timetable Planning Rule(s)
Turnround time	The time one service at a location before it forms the next service. This must meet or exceed a defined minimum.
P&ST	Performance and Simulation Team
WTT	Working Timetable (e.g. permanent schedules in the Dec 23 timetable)

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Part A: Executive Summary

Alliance Rail (Alliance) are a prospective open access operator seeking rights to operate 5 new return services between Cardiff and Edinburgh via the East Coast Main Line (ECML). Joint analysis was undertaken for the proposed Alliance Rail train services, including capacity for proposed service paths, examination of Cardiff, Birmingham New Street and Edinburgh platforming, and performance analysis at select locations. The proposed paths will pass through the geographic boundary of the not-yet implemented Wales and ECML Event Steering Group (ESG) timetables. As such, this analysis used both development timetables as a base for this assessment, with the June 24 timetable used as a base for the region outside both areas.

These three different bases were not integrated before the start of this work and it was not part of this work to resolve mismatched schedules between them, therefore there was some ambiguity about how significant mismatches will be resolved for future timetables. This was most significant for mismatched services in the Birmingham-Derby corridor between the June 24 timetable and the ECML ESG development timetable, discussed in C.01.03.

There were also differences between schedules in the Wales ESG development timetable and the June 24 timetable, mostly in the Cheltenham and Gloucester area. Where a choice was required between them, the version of paths held in the Wales ESG development timetable was used because this is in line with expected future timetables.

Alliance and the Advanced Timetable Team (ATT) worked collaboratively in a form of 8 2-hour screensharing workshops to reduce the number of conflicts between the proposed paths and other schedules in the timetable databases used for the analysis. Prior to initiating the workshops, ATT identified 124 conflicts with the proposed schedules, and 167 potential solutions to reduce them, in the form of changes to other schedules in the timetable bases. Following the workshops, this position improved to a reduced number of conflicts at a 110, with potential solutions increasing to 218.

The analysis found that during the remitted assessment timeline, timetable capacity for Alliance Rail's current proposed paths does not exist because they are not conflict-free against the base timetables.

The exact timings of the proposed Alliance paths with train prints can be found in G.01 of the appendix, with remaining unresolved conflicts per train listed in C.03.

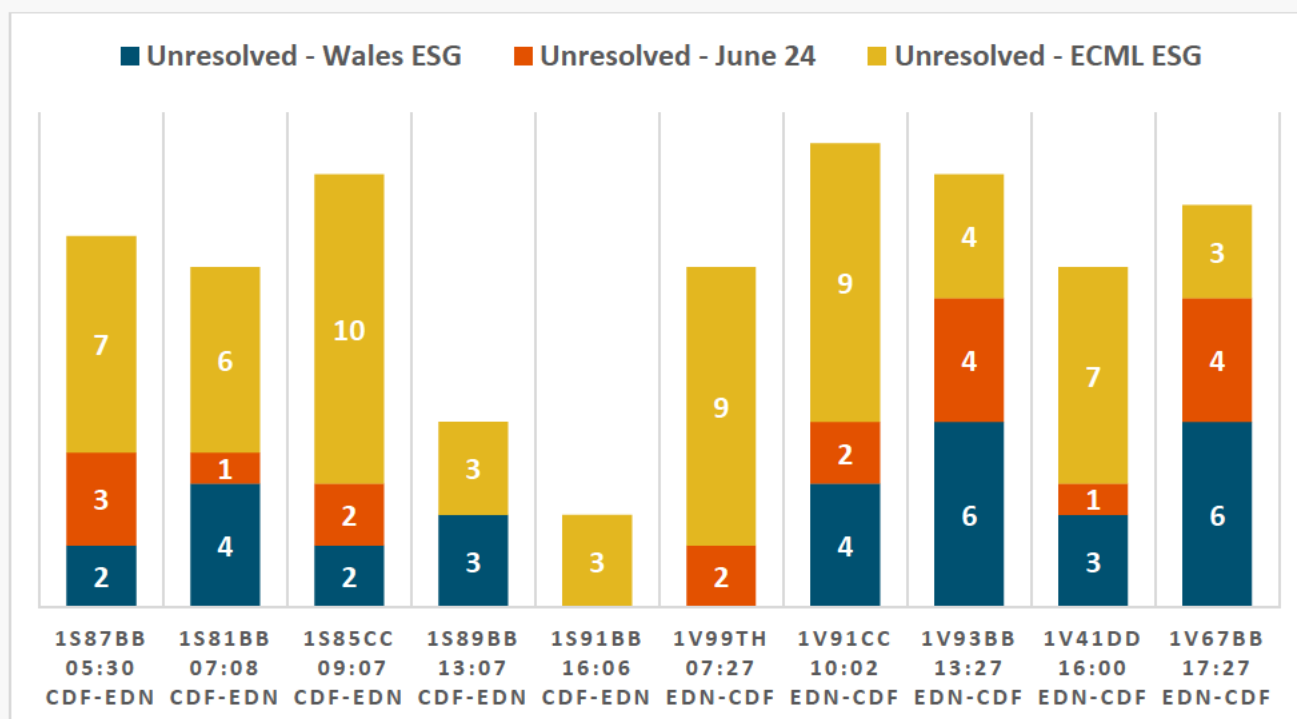


Figure 1: Overview of unresolved conflicts per schedule and database

Alliance paths are proposed to run through some areas of existing poor performance (see section C.02).

This will both risk the performance of Alliance services which may be affected by reactionary delay, but also risk Alliance paths causing reactionary delay further along route. This will make recovery within the paths essential.

Should Timetable Planning Rule (TPR)-compliant paths be identified further performance work should be done to ensure the paths are robust and to understand the full risk profile.

Figure 1 shows an overview of the remaining unresolved conflicts per schedule and database, totalling to 110 across all paths and databases. More details are given in the findings section of this note, both for each relevant Alliance schedule and at key locations. Locations identified as significant for this work, both in terms of presenting significant constraints and for the number of unresolved conflicts, are Cardiff Central, Gloucester, Cheltenham, Birmingham New Street, Water Orton, Sheffield, York and Edinburgh.

For most calling locations a 5-car formation of 117 metres does not present an issue for the lengths of the available platforms, with the exception of Cardiff platform 0. A 7-car formation of 161 metres would reduce available platforms at Edinburgh, although without significant impact, but Severn Tunnel Junction platform 1 would also become too short which significantly reduces platform options (see C.06 for more information).

Conflicts with three strategic capacity paths could not be resolved and are included above, discussed further in section C.04.

There is a future network change at Darlington, expected to be commissioned for September 2025, before the Alliance Rail's expected service introduction in December 2025. This is anticipated to have a positive impact on the potential for conflicts here, and those conflicts identified are listed in section C.02.10 but not included elsewhere in this note.

To achieve the final conflict level required a total of 218 other schedules to be amended across all three databases. A summary of the number of each type of schedule changed is shown in Figure 2. The details of the changes are given in G.03, with significant changes highlighted against each related Alliance schedule in the findings section of this note.

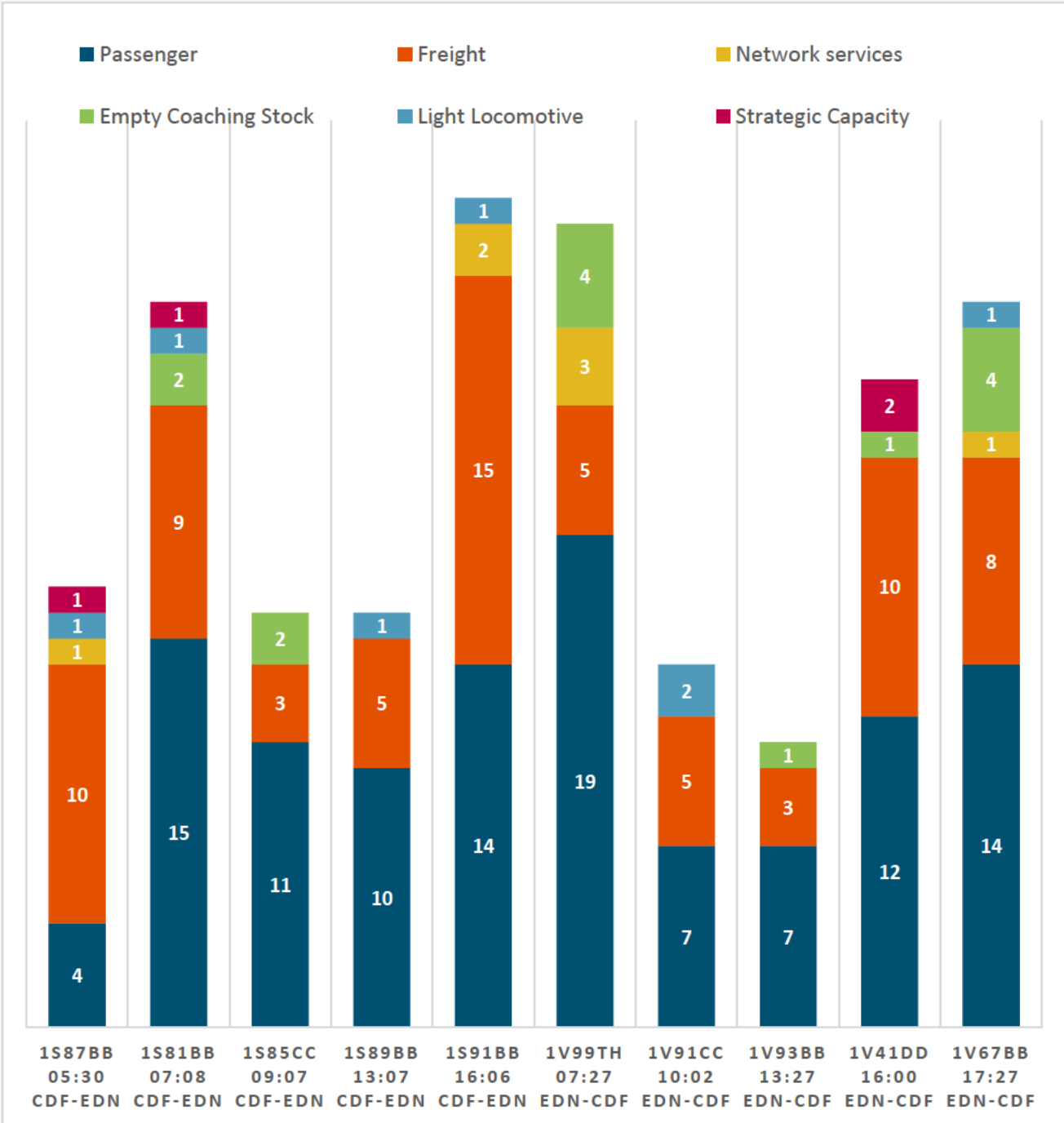


Figure 2: Overview of changed schedules by type, per Alliance schedule

Full unit diagram information at the two terminal stations (Edinburgh and Cardiff Central) was not provided, however arrival and departure times of the schedules would require all or most of these services to be formed from Empty Coaching Stock (ECS) moves from either depot or sidings (and vice versa). This is discussed in sections C.02.03 and C.02.11.

The assessed timings for the Alliance schedules are clear of non-disruptive possession opportunities (as listed in section 4 of the Engineering Access Statement (EAS)) that would require a complete line block, but there are two-track timetable requirements on the South Wales Main Line (SWML) mid-week that require trains to run over the Relief lines between Long Dyke Junction and Severn Tunnel Junction. This potentially impacts three of the Alliance schedules, with further details in section C.05.

Part B: Introduction

B.01 Background

Alliance is an open access operator that has submitted an application to the Office of Rail and Road (ORR) to run 5 additional return services per day between Cardiff and Edinburgh via the ECML.

The proposed paths will pass through the geographic boundary of the not-yet implemented Wales and ECML ESG development timetables.

B.02 Aims and Objectives

This analysis was intended to determine:

- a) If timetable capacity exists for the proposed timings at present or is likely to exist following the implementation of the Wales and ECML ESGs.
- b) If Cardiff Central station is likely to be able to accommodate the proposed paths
- c) If Birmingham New Street station is likely to be able to accommodate the proposed paths
- d) If Edinburgh Waverley station is likely to be able to accommodate the proposed paths
- e) Performance insight of the proposed paths based on integration into timetable structure and historic assessment at key locations (conducted by the Performance and Simulation team)

Part C: Findings

C.01 Overview

Table 1 shows the number of unresolved conflicts by schedule and database. Conflicts are here defined as occasions where the interaction of two (or more) trains at a given location is not compliant with the required TPR value(s) for that location. These represent either TPR-values that could not be achieved, typically planning headway, junction margin or platform reoccupation values, or a clash between two train schedules that would in reality be incompatible (such as two trains changing sequence on a track with no locations that could allow overtaking).

There are 110 unresolved conflicts for the 10 proposed Alliance schedule. The number of unresolved conflicts includes:

- Direct conflicts: between another service and an Alliance schedule.
- Indirect conflicts: conflict caused to a third schedule when resolving one between original conflicting schedule and an Alliance schedule.

Alliance ID	Origin time	Origin	Remaining conflicts Wales	Remaining conflicts June 24	Remaining conflicts ECML	Remaining conflicts total
1S87BB	05:30	Cardiff	2	3	7	12
1S81BB	07:08	Cardiff	4	1	6	11
1S85CC	09:07	Cardiff	2	2	10	14
1S89BB	13:07	Cardiff	3	0	3	6
1S91BB	16:06	Cardiff	0	0	3	3
1V99TH	07:27	Edinburgh	0	2	9	11
1V91CC	10:02	Edinburgh	4	2	9	15
1V93BB	13:27	Edinburgh	6	4	4	14
1V41DD	16:00	Edinburgh	3	1	7	11
1V67BB	17:27	Edinburgh	6	4	3	13
Total			30	19	61	110

Table 1: Summary of Alliance schedules

218 changes were made to other schedules to reduce the number of conflicts. Summary of number of changes made per Alliance schedule and database are shown in Table 2. List of headcodes and details of changes can be found in the G.03 of the appendix.

Alliance ID	Origin time	Origin	Changed schedules Wales	Changed schedules June 24	Changed schedules ECML	Changed schedules total
1S87BB	05:30	Cardiff	0	3	14	17
1S81BB	07:08	Cardiff	6	7	15	28
1S85CC	09:07	Cardiff	7	1	8	16
1S89BB	13:07	Cardiff	6	0	10	16
1S91BB	16:06	Cardiff	11	1	20	32
1V99TH	07:27	Edinburgh	0	2	29	31
1V91CC	10:02	Edinburgh	0	0	14	14
1V93BB	13:27	Edinburgh	0	0	11	11
1V41DD	16:00	Edinburgh	0	11	14	25
1V67BB	17:27	Edinburgh	2	4	22	28
Total			32	29	157	218

Table 2: Summary of changed schedules

C.01.01 Wales ESG

There are 30 unresolved conflicts (total across all 10 services) in the Wales ESG Development timetable. Two schedules (1S91 and 1V99) are conflict-free in this database. Figure 3 shows the conflicts by section of the route within the ESG boundary (Cardiff to Gloucester/Barnwood Junction), and by type of conflict.

There were differences between schedules in the Wales ESG development timetable and the June 24 timetable, mostly in the Cheltenham and Gloucester area. Where a choice was required between them, the version of paths held in the Wales ESG development timetable was used because this is in line with expected future timetables that will be implemented. A notable service group involved is Transport for Wales's 2G which will operate between Cardiff Central-Cheltenham Spa in the ESG development timetable, but in the June 24 timetable these terminate at Maesteg, not Cardiff Central.

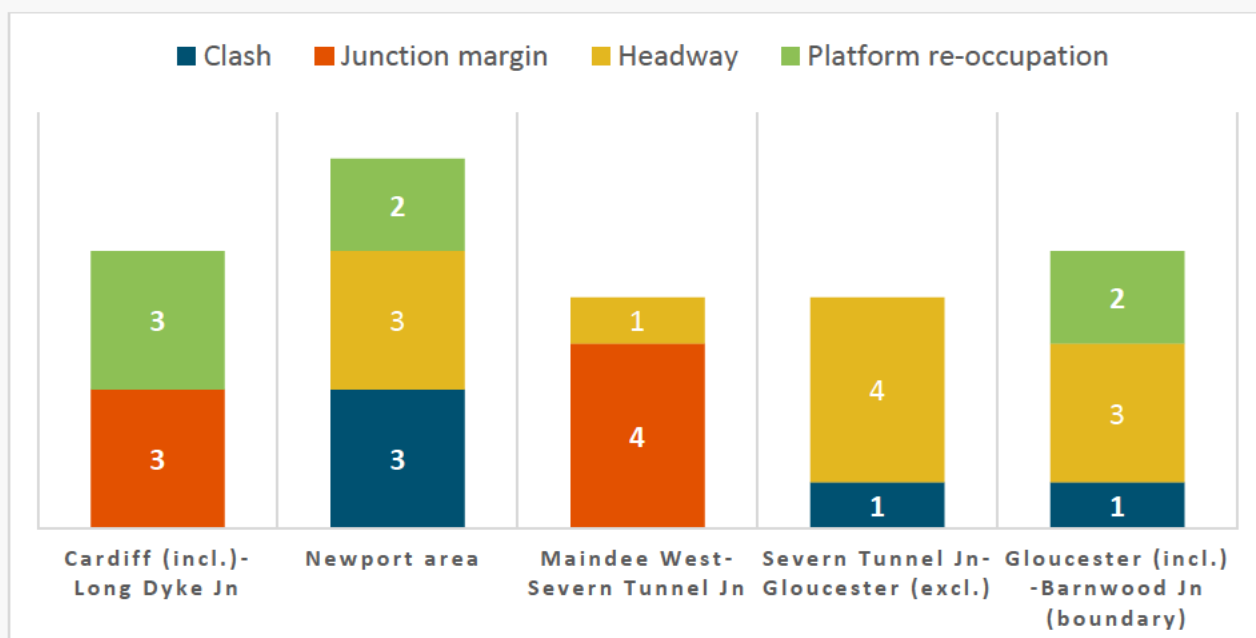


Figure 3: Unresolved conflicts within the Wales ESG

The most notable recurring conflict in the Wales ESG was the clash between both northbound and southbound Alliance schedules and the 2G Cardiff to Cheltenham services, with the clashes taking place between Severn Tunnel Junction and Gloucester. Not all of these were resolved.

The remaining outstanding conflicts relate to various things:

- Headway conflicts and clashes between Alliance and freight schedules between Gloucester and Severn Tunnel Junction
- Gloucester station platforming and headway conflicts in the area
- Junction margin conflicts at Severn Tunnel Junction and Long Dyke Junction.

Significant northbound conflicts:

- Retiming of local passenger trains by up to 2 minutes from Cardiff was partially implemented for northbound schedules, however further refinement is needed to fully resolve the remaining minor conflicts.

Significant southbound conflicts:

- There are headway conflicts that span across both the June 24 and the Wales ESG analysis databases between Alliance schedules, Cheltenham-Cardiff services from Cheltenham and existing CrossCountry services from Birmingham New Street to Gloucester. These conflicts were resolved for the two scheduled using a former CrossCountry slot between Newcastle and Birmingham New Street (10:02 1V91CC, 16:00 1V41CC) but remain unresolved for the others.

C.01.02 June 24

There are 19 unresolved conflicts (across all 10 services) in the June 24 timetable. None of the Alliance schedules are conflict free in this database. Figure 4 shows the conflicts by section of the route within the June 24 timetable boundary (Barnwood Junction to Landor Street), and by type of conflict.

Only the services contained within this timetable were considered as part of this work, for more details on exclusions please refer to D.06.

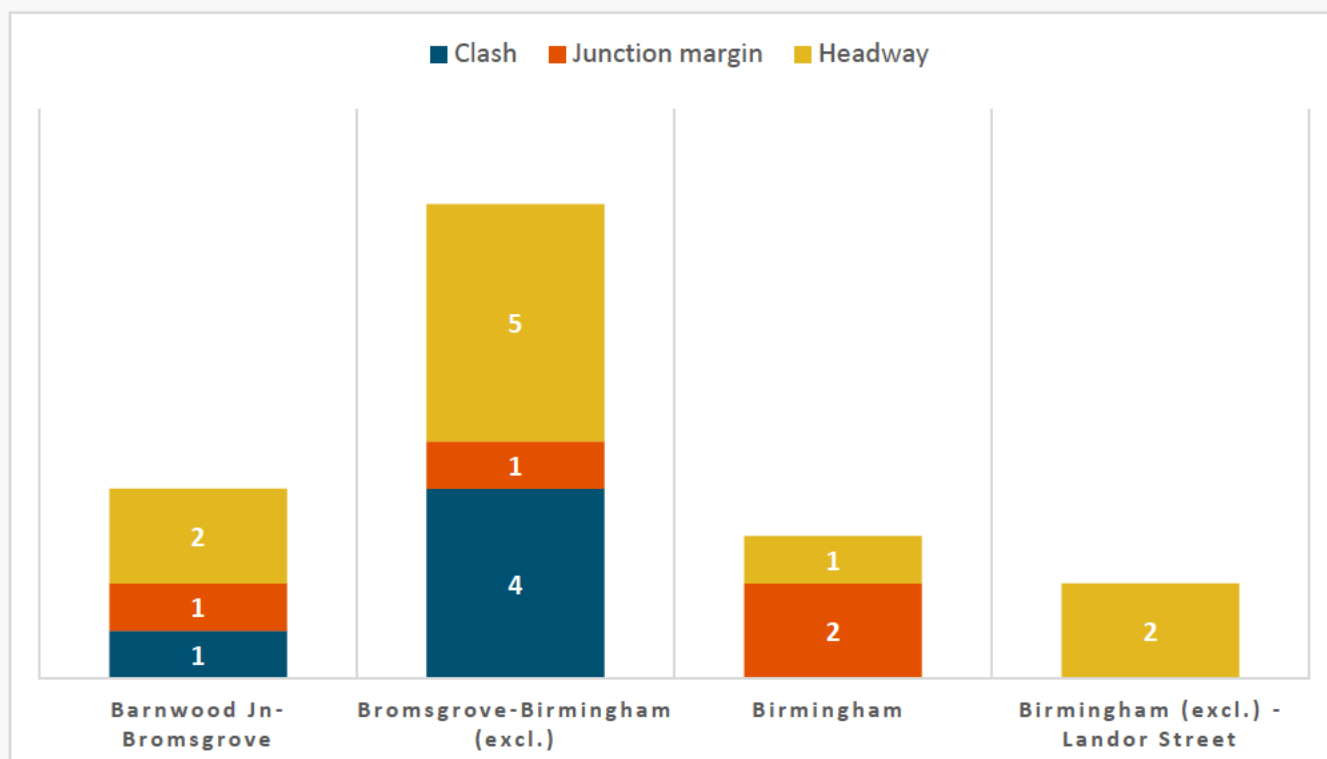


Figure 4: Unresolved conflicts within the June 24 database

Significant northbound conflicts:

- Alliance schedules clash with freight schedules between Barnwood Junction and Longbridge Junction: 1S85 with 6M96 (see details in C.03.03) and 1S87 with 6M90 and 6M29 (see details in C.03.01).

Significant southbound conflicts:

- There are outstanding conflicts with 20 services to Bromsgrove. These services are half hourly and are present for 3 of 5 Alliance services in the current paths. No consistent solution could be found for these services. This was due to other services and the varying times between the hours.
- There are conflicts with existing CrossCountry services to either Plymouth or Bristol for 3 of 5 services (1V41DD and 1V91CC excluded) throughout the stretch between Bromsgrove and Cheltenham. It is possible to remove the conflict with these services however this creates a worse conflict with the Bromsgrove services outlined above.

C.01.03 ECML ESG

There are 61 unresolved conflicts (across all 10 services) in the ECML ESG development timetable. None of the Alliance schedules are conflict free in this database. Figure 5 shows the conflicts by section of the route within the ESG (Landor Street to Edinburgh), and by type of conflict. Conflicts at stations are included in the following sections:

- Derby station: Water Orton-Derby section
- Sheffield station: Derby-Sheffield section
- Doncaster station: Sheffield-Doncaster section
- York station: Doncaster-York section
- Newcastle station: York-Newcastle section
- Edinburgh station: Newcastle-Edinburgh section

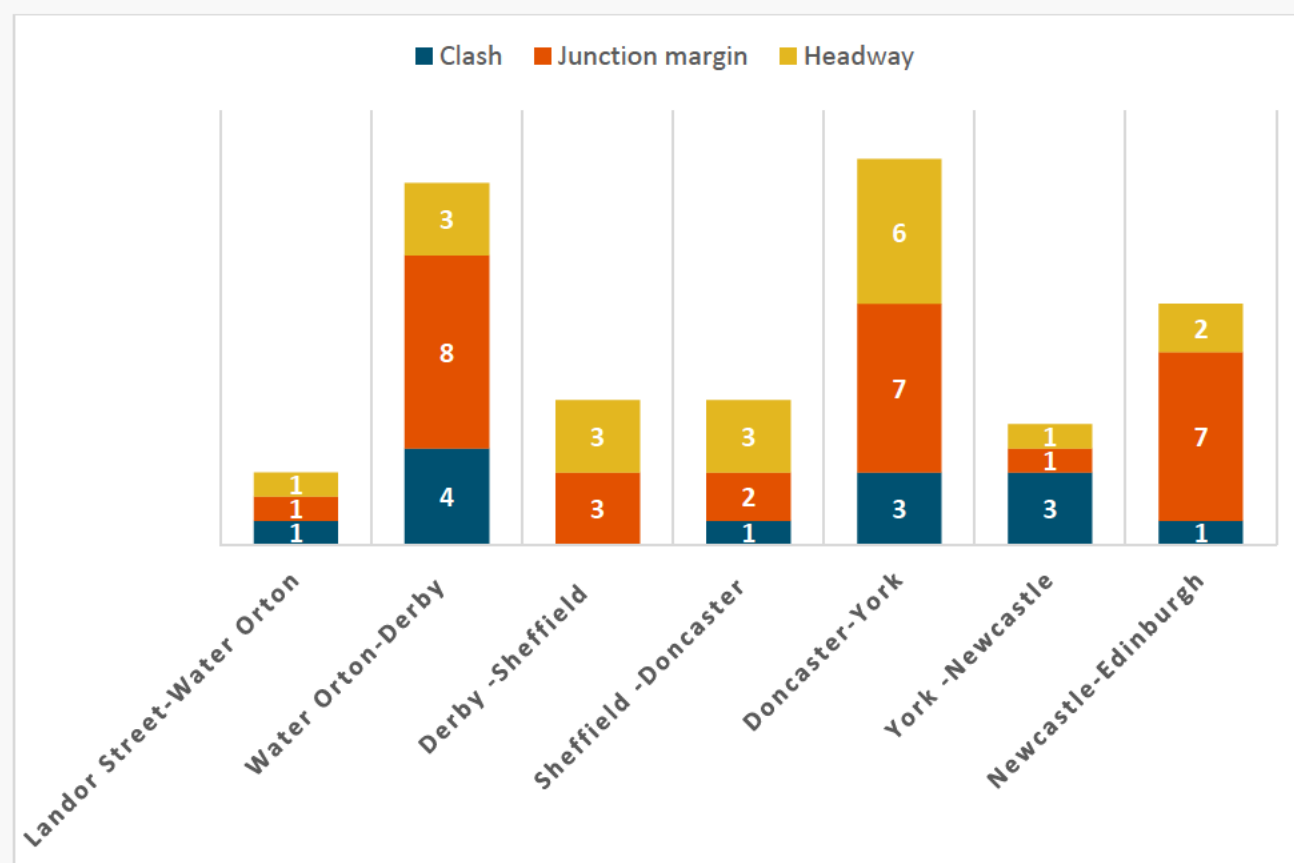


Figure 5: Unresolved conflicts within the ECML database

Not all services at the boundary of the ECML ESG development timetable matched those at the corresponding location in the June 24 timetable. Some services are present in one timetable but not in the other and many services have different timings, sometimes to a significant degree. These changes mean that conflicts in this area could not be resolved consistently.

These conflicting services are typically freight schedules and the existing CrossCountry Birmingham to Nottingham services and could not be resolved consistently in both databases.

Significant northbound conflicts:

- Freight clashes outside Sheffield station on the southern and northern approach:
 - 1S87 clashing with 6E56 between Sheffield and Swinton (see details in C.03.01)

- 1S89 junction margin conflict with 6H45 approaching Dore South Junction (see details in C.03.04)
 - 1S91 junction margin conflict with 6M92/6H92 approaching Dore South Junction (see details in C.03.05)
- Freight clashes on the ECML between Doncaster and Edinburgh, detailed under the individual schedules in C.03.
- Unresolved conflict between 1E32 CrossCountry hydra path and 1S85. There is a proposal to take the path of 1E32 between Derby and York, with 1E32 instead departing Derby at 12:15 instead of 12:00. The retime to 1E32 for this proposal caused 7 consequential freight conflicts that are unresolved at this point (see full details in C.03.03.)
- 1S81, 1S85, 1S87 have direct and indirect platforming conflicts at York station. See details on York station in C.02.09.

Significant southbound conflicts:

- Freight clashes remain in the Derby-Water Orton area for all the southbound schedules. See details on freight clashes under individual headcodes in C.03.
- Freight clashes relate to 1V41 (16:00) on the ECML between Darlington-Doncaster (4E04, 4L78/4L79). These freight schedules had conflicts in the ESG with other schedules already, and no obvious solution was found. (see detail in C.03.09).

C.02 Stations and key locations

C.02.01 Performance Intelligence

Due to the absence of conflict-free Alliance paths, a 'key-location' based performance intelligence approach was taken.

This provides a useful output for assessing the broad scale risks and to help inform future timetabling work by providing a view on current performance at these locations, as well as specific issues where services are close to proposed timings.

These locations are: Cardiff Central, Gloucester, Birmingham New Street, Sheffield, Edinburgh.

Given the significant uncertainties around base timetables data was used from the running Dec 23 timetable, with commentary highlighting significant differences in the relevant base timetables.

C.02.02 Definitions

Unresolved conflicts relating to each Alliance schedule were categorised by type (where a headway, platform reoccupation or junction margin value could not be achieved, or two schedules clash with each other), and complexity, using the following rating shown in Table 3. All clashes have a fundamental conflict rating.

Conflict rating	Definition
Fundamental	A conflict which would require either Alliance Rail or another service to be significantly retimed into different time slot within the timetable structure.
Major	A conflict to which a resolution could be achieved without significant retiming to either the Alliance Rail or other service, but it may require consequential changes to other schedules.
Minor	A conflict that is non-compliant with the TPR value by 2 minutes or less and resolution could be achieved without impacting other schedules.

Table 3: Rating of conflict severity

C.02.03 Cardiff Central

Full details of moves in and around Cardiff Central could not be considered as part of this analysis, however validity of moves to and from accessible platforms was considered. Any identified conflicts are shown in Table 4.

Alliance ID	Conflicting schedule	Type of Conflict	Conflict Rating
1V67BB	3F34DA (Great Western Railway (GWR) MSX Cardiff Central - St Phillips Mrsh HSTD)	Platform Reoccupation	Major
1V67BB	2N50JS (Transport for Wales (TFW) SX Ebbw Vale Town - Cardiff Central)	Headway	Fundamental
1V91CC	1V44DR (TFW SX Manchester Piccadilly - Pembroke Dock)	Junction Margin	Major
1V93BB	2N33JS (TFW SX Maesteg - Ebbw Vale)	Junction Margin	Major
1V93BB	1L34DB (GWR SX Carmarthen - Paddington)	Platform Reoccupation	Major
1S87BB	3L05DA (GWR SX Cocklebury - Cardiff Central)	Junction Margin	Major

Table 4: Unresolved conflicts around Cardiff

Platforms 0-4 are accessible to Alliance services (Figure 6) at Cardiff from the SWML, however platform 0 is stated as 99 metres in the TPRs, shorter than the 117 metres required for a 5-car 22X formation.

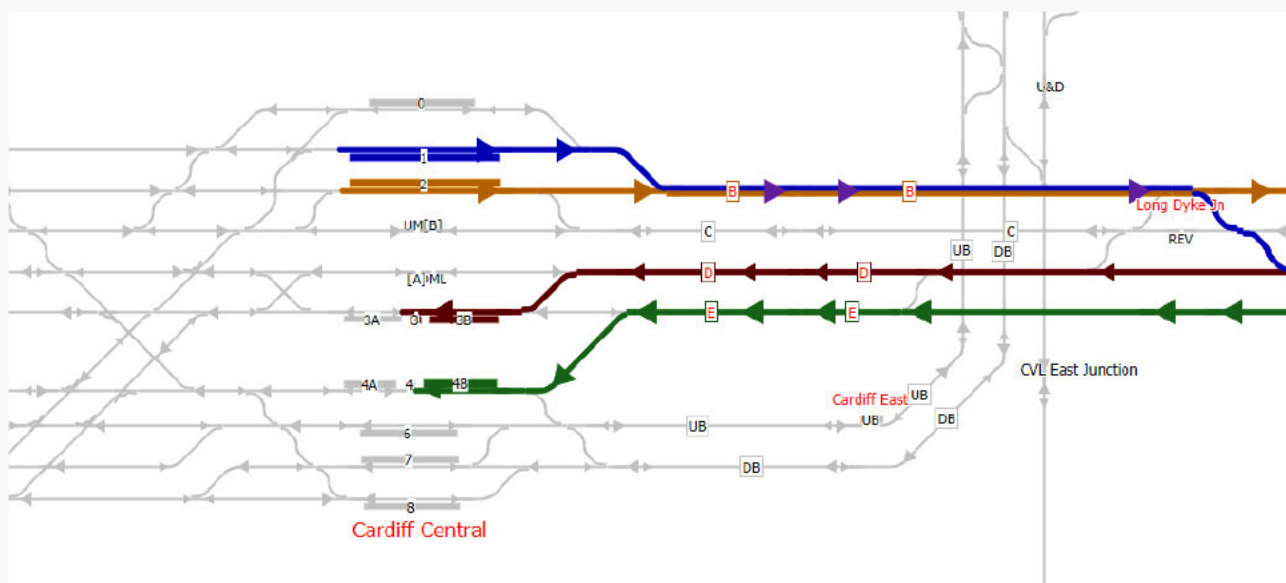


Figure 6: Layout of Cardiff Central and suitable platforms for Alliance schedules

Alliance ID	Direction	Time	Preceding or next move (based on provisional diagrams)
1S87BB	Northbound	05:30	ECS from depot
1S81BB	Northbound	07:08	ECS from depot
1S85CC	Northbound	09:07	ECS from depot
1S89BB	Northbound	13:07	ECS from depot
1V99TH	Southbound	14:14	Potential shunt to depot and form 16:06 to Edinburgh
1S91BB	Northbound	16:06	To be formed from 14:14 arrival
1V91CC	Southbound	16:40	ECS to depot
1V93BB	Southbound	20:09	ECS to depot
1V41DD	Southbound	22:40	ECS to depot
1V67BB	Southbound	00:09	ECS to depot

Table 5: Arrival and departure times at Cardiff Central

Table 5 shows arrival and departure times at Cardiff for this analysis (departure times for northbound schedules, arrival times for southbound schedules). These times and platform availability will require trains to be formed from ECS moves from either depots or sidings (likely Swansea Landore and Cardiff Canton) and vice versa after incoming services. These moves were not considered in detail, but an assessment of platform capacity in this regard is below. Please note, that capacity for the ECS moves into the station from the West was not assessed.

Platform capacity:

For the northbound schedules, the 05:30 and 07:08 departures have potential platform capacity in platform 1, with 8 minutes or more available to accommodate formation from an ECS move.

Platform availability is more limited for the 09:07, 13:07, 16:06 departures from Cardiff. These depart from platform 1 in this assessment and there would be only 4 minutes available in the platform for an ECS to form the passenger service, to achieve platform re-occupation value of 3 minutes (same direction).

Other suitable platforms include platform 2, in use by local services at the times of the Alliance services.

For the northbound schedules, platform capacity is limited as platforms 1-4 are either occupied already, or there is only a 2–4-minute gap available to form an ECS before the next service arrives.

For both, platform capacity could not be assessed fully and compliance with platform re-occupation values may not be achievable without unit diagrams. Platform sharing may be possible depending on the length of other services and the departure time of the Alliance ECS moves but this was not assessed by this analysis.

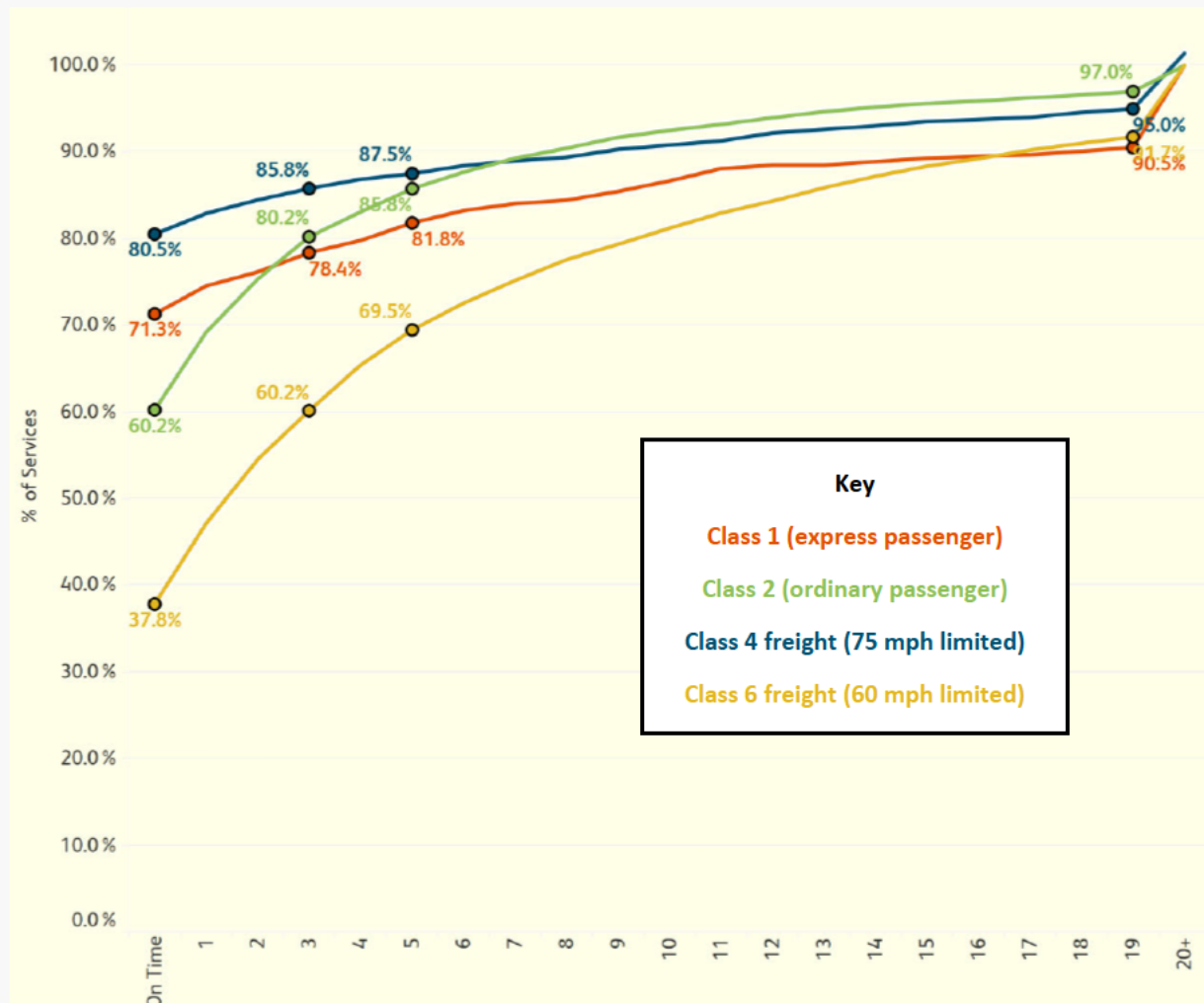


Figure 9: Performance of Freight towards Cardiff at Marshfield

Class 4 freight performs better than passenger traffic at On Time, with class 6 freight performing well in comparison to passenger services at most measures (Figure 9). Running on the generally less congested RL may aid in recovery into Cardiff.

Flows likely to affect Alliance Rail paths: Northbound

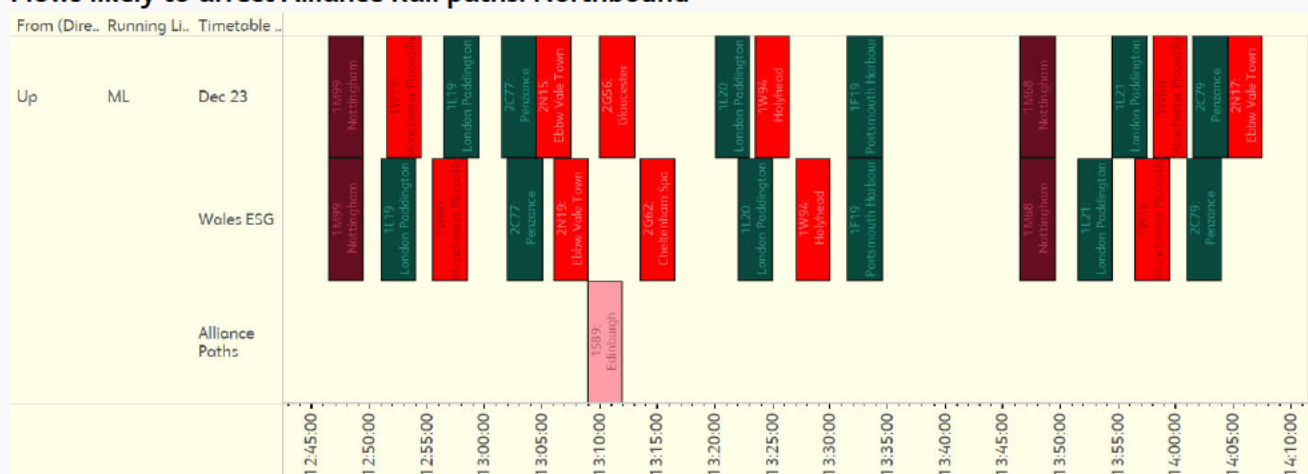


Figure 10: Sample Headway view of location of 1S89 in flighting on Main Lines (ML)

Figure 10 shows a sample headway view of one of the proposed northbound Alliance schedules. Headways of 3 minutes are displayed, with Alliance shown in pink, CrossCountry in burgundy, TfW in red and GWR in dark green.

Alliance paths in the northbound direction at Cardiff are generally between 2N and 2G services in both June 24 and the Wales ESG. These services have been moved slightly in the Wales ESG development timetable and typically have different origins with 2Ns starting at Maesteg instead of Cardiff, and 2Gs starting at Cardiff rather than Maesteg. Dec 23 performance is shown here, but this will not necessarily be a reliable indicator of performance of the ESG paths.

Both sets of services perform relatively poorly on the SWML in OT (Figure 11 and Figure 12). 2G services do not perform well in T3 or T5, however the Wales ESG changes these paths significantly with respect to service origin and so these numbers will not necessarily be predicative of performance within the ESG timetable.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Maesteg	57.7 %	69.0 %	79.1 %	688
Garth (Mid Glamorgan)	64.2 %	79.0 %	86.1 %	548
Tondu	52.9 %	69.2 %	78.1 %	686
Sarn	60.5 %	74.9 %	83.5 %	565
Wildmill	62.4 %	75.4 %	84.1 %	566
Bridgend	51.5 %	67.5 %	79.4 %	699
Pencoed	45.4 %	65.1 %	77.4 %	702
Llanharan	27.9 %	58.8 %	71.8 %	628
Pontyclun	26.4 %	58.2 %	71.3 %	704
Cardiff Central	35.1 %	60.5 %	72.0 %	767
Long Dyke Jn	39.8 %	61.0 %	73.5 %	566
Marshfield	40.1 %	61.1 %	71.0 %	745
Ebbw Jn	34.7 %	56.5 %	69.9 %	744
Newport (South Wales)	43.0 %	63.0 %	74.1 %	745
Maindee West Jn	49.8 %	67.0 %	75.1 %	743
Llanwern West Jn	45.7 %	64.8 %	74.5 %	744
Severn Tunnel Jn	41.1 %	60.1 %	73.5 %	744
Caldicot	40.2 %	60.0 %	72.3 %	743
Chepstow	42.1 %	60.3 %	73.5 %	743
Lydney	31.9 %	56.2 %	69.1 %	742
Awre	29.0 %	51.7 %	66.3 %	718
Horton Road Jn	28.8 %	53.9 %	67.5 %	594
Gloucester	12.7 %	32.5 %	52.1 %	718
Barnwood Jn.	32.3 %	53.8 %	68.1 %	595
Cheltenham Spa	15.1 %	43.5 %	60.5 %	595

Figure 11: 2G TfW services (Maesteg/Cardiff to Gloucester/Cheltenham)

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Cardiff Central	47.9 %	66.4 %	79.9 %	1,108
Long Dyke Jn	58.2 %	74.6 %	87.7 %	782
Marshfield	61.5 %	75.4 %	85.9 %	1,107
Ebbw Jn	57.9 %	72.8 %	84.7 %	1,107
Park Jn	72.5 %	84.6 %	89.9 %	1,107
Park North Junction	73.0 %	84.4 %	89.7 %	1,106
Pye Corner	78.2 %	86.4 %	91.6 %	1,105
Rogerston	81.3 %	88.3 %	92.5 %	775
Risca & Pontyminster	78.1 %	85.9 %	90.7 %	1,103
Crosskeys	73.9 %	84.2 %	89.7 %	1,102
Newbridge	72.8 %	83.6 %	89.8 %	1,103
Llanhilleth	73.0 %	83.7 %	89.8 %	1,103
Ebbw Vale Parkway	69.8 %	85.2 %	91.7 %	775
Ebbw Vale Town	67.5 %	82.8 %	88.4 %	1,090

Figure 12: 2N TfW services (Cardiff to Ebbw Vale Town)

C.02.04 Gloucester and Cheltenham Spa

In the Gloucester and Cheltenham area, there were differences between schedules in the Wales ESG development timetable and the June 24 timetable. Where a choice was required between them, the version of paths held in the Wales ESG development timetable was used as it is expected to be implemented in the December 24 timetable.

Table 6 shows unresolved conflicts between Alliance and other schedules at Gloucester.

Alliance ID	Conflict Schedule	Type of Conflict	Conflict Rating
1V41DD	6V82DC 6V82DB (GB Railfreight MO, MTHO Colton Hill, Clitheroe - Avonmouth Hanson)	Headway	Major
1V67BB	1V71DC (CrossCountry SX Edinburgh - Bristol Temple Meads)	Headway	Fundamental
1V67BB	6V61DN (DB Cargo FSX + FO Round Oak - Margam T.C.)	Headway	Fundamental
1V67BB	6V81DB (DB Cargo FO, MWO, TTHO Masborough FD - Cardiff Tidal T.C.)	Headway	Major
1V67BB	6V57DB (DB Cargo TTHO Wolverhampton Steel Term - Newport Docks)	Headway	Fundamental
1V67BB	5G29DA (GWR SX Worcester Shrub Hill - Stoke Gifford IEP Depot)	Headway	Major
1V67BB	3S31DG (Colas FSX Swindon Transfer - Cheltenham Lansdown)	Junction Margin	Major
1V91CC	2T47DA (GWR SX Worcester Foregate Street - Bristol Temple Meads)	Clash	Fundamental
1V93BB	1V64DB (CrossCountry SX Edinburgh - Plymouth)	Headway	Fundamental
1V93BB	2L69DB (TFW SX Cheltenham Spa - Cardiff Central)	Headway	Fundamental

Alliance ID	Conflict Schedule	Type of Conflict	Conflict Rating
1V93BB	6V30QJ (QJ SX Handworth Queens Head Sidings - Cardiff Tidal T.C.)	Headway	Fundamental
1V93BB	6V71DA (DB Cargo MO Cliffe Vale - Exeter Riverside NY.)	Headway	Major
1V93BB	6M53GA (DB Cargo TO, WO, THO Swindon Stores - Toton Up Sdgs)	Junction Margin	Major
1V99TH	2L57DB (TFW SX Cheltenham Spa - Maesteg)	Headway	Fundamental
1S81BB	2G50JS (TFW SX Cardiff Central - Cheltenham Spa)	Platform Reoccupation	Minor
1S81BB	1L66DA (GWR SX Worcester Shrub Hill - London Paddington)	Clash	Fundamental
1S81BB	2G44SB (TFW SX Bridgend - Cheltenham Spa)	Clash	Fundamental
1S85CC	1L70DA (GWR SX Cheltenham Spa - London Paddington)	Clash	Fundamental
1S87BB	6M29PD (DB Cargo TO, WO, THO Cardiff Tidal - Kingsbury Reception)	Headway	Major
1S89BB	3S32DH (Colas TO, THO Cheltenham Lansdown Loop - Swindon Transfer)	Platform Reoccupation	Major
1S89BB	1L78DA (GWR SX Cheltenham Spa - London Paddington)	Platform Reoccupation	Minor
1S91BB	2G62DB (TFW SX Maesteg - Cheltenham Spa)	Platform Reoccupation	Minor
1S91BB	2O84DA (GWR SX Gloucester - Weymouth)	Headway	Minor

Table 6: Unresolved conflicts at and around Gloucester

Gloucester

Available timetable capacity at Gloucester station around the times used by the Alliance services in this analysis is limited, largely due to:

- Reverse moves taking place at the station for GWR services to and from London and Cheltenham/Worcester in both directions, and for CrossCountry services from Edinburgh to Plymouth/Bristol (at 19:00 and 22:00, which interact with 1V93 and 1V41)
- Key freight routes that run through Gloucester or near it via junctions outside the station.

Platform capacity for northbound trains:

- The main potential for conflicts in this direction was for a clash with Cheltenham services operated by TfW. Resolving this required schedules to be amended in the Gloucester area.
- Apart from the first northbound train, the Alliance schedules have to pass Barnwood Junction at XX:13-XX:16 to avoid conflict with CrossCountry’s 1S Plymouth to Edinburgh services. This was achieved by extended dwells for the Alliance schedules at Gloucester, however, platform capacity would only be achieved by consequential changes to other schedules in the area. Figure 13 shows the layout of Gloucester station and surrounding area, showing a northbound Alliance schedule (blue) and an example of reverse move originating from the Cheltenham direction (orange). Most

Weekday performance is poor at Gloucester, particularly for CrossCountry and TfW services (Figure 14). Gloucester is an area of performance risk due to the number of reversing moves already in the timetable, although Alliance services are not proposed to reverse here.

Flows likely to affect Alliance Rail paths: Southbound

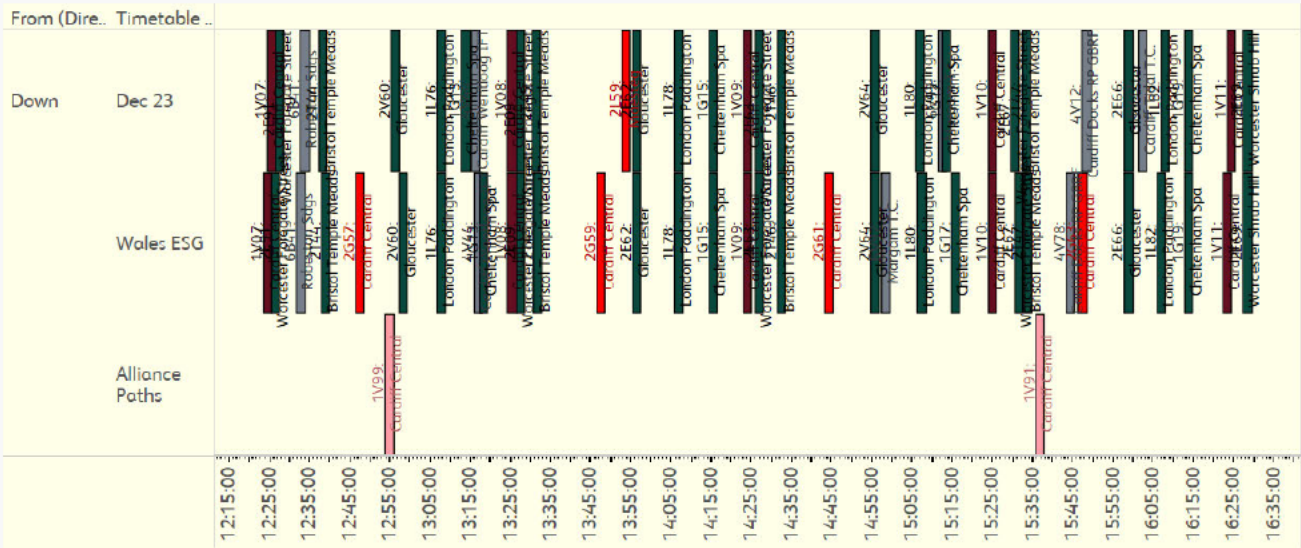


Figure 15: Sample Headway view of location of 1V99 and 1V91 from Horton Road to Gloucester.

Figure 15 shows a sample headway view of two of the proposed southbound Alliance schedules. Headways of 2 minutes are displayed, with Alliance shown in pink, CrossCountry in burgundy, TfW in red, GWR in dark green, and freight in grey.

Alliance paths do not fit into a standard pattern on approach to and on leaving Gloucester in the Wales ESG development timetable. Therefore, each path will carry different levels of risk. This coupled with the changes in the timetable structure means it is not possible to give a general risk profile for the paths.

Performance of all Flows at Gloucester

Performance at Gloucester is not homogenous. 2G TfW services and GWR 1G services perform very poorly (Figure 16). 1G services in particular are more likely than not to be over 5 minutes late than arriving at Gloucester with 5 minutes of booked. In contrast Gloucester-starting 20 and 2C services perform well and care should be taken to maintain this.

		Recorded WTT Points	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %
CrossCountry	1L	31	41.9 %	64.5 %	74.2 %
	1V	833	33.0 %	52.6 %	69.1 %
	1M	759	58.9 %	76.9 %	86.0 %
GWR	2E	1,718	49.8 %	66.4 %	79.0 %
	2T	1,518	54.0 %	75.4 %	86.2 %
	2G	211	80.6 %	87.7 %	88.6 %
	1G	1,062	25.5 %	35.7 %	46.8 %
	1L	932	40.8 %	69.3 %	79.0 %
	2O	550	78.4 %	90.0 %	94.4 %
	2C	413	86.7 %	93.7 %	95.6 %
	2V	391	69.6 %	80.6 %	87.0 %
	2M	76	60.5 %	65.8 %	72.4 %
	2B	74	41.9 %	70.3 %	83.8 %
TfW Rail Limited	2G	873	13.5 %	34.2 %	53.3 %
	2L	785	56.8 %	74.9 %	83.2 %

Figure 16: Performance at Gloucester

Flows likely to affect Alliance Rail paths: Northbound

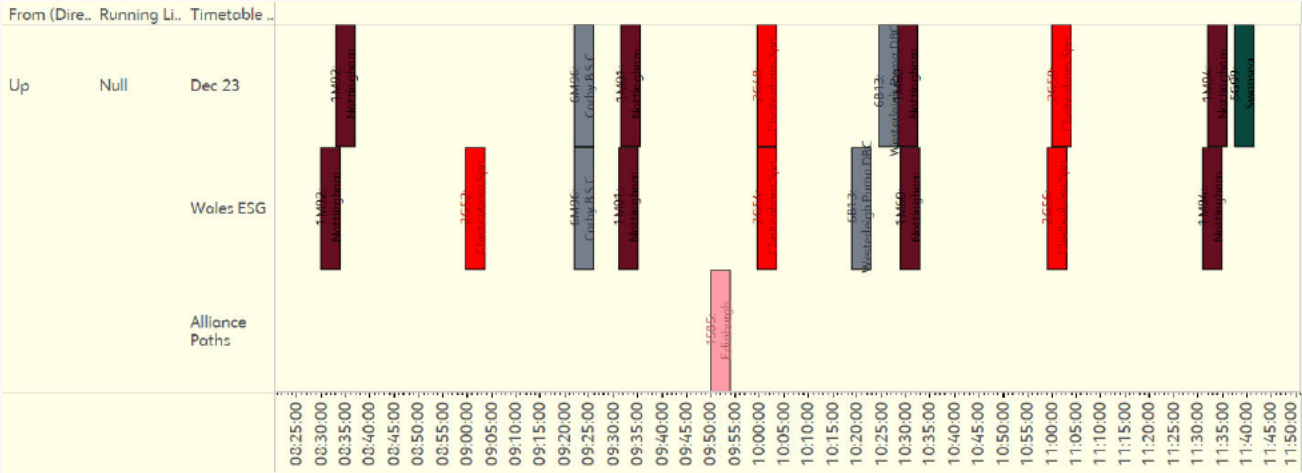


Figure 17: Sample Headway view of location of 1S85

Figure 17 shows a sample headway view of one of the proposed northbound Alliance schedules. Headways of 4 minutes are displayed, with Alliance shown in pink, CrossCountry in burgundy, TfW in red, GWR in dark green, and freight in grey.

Alliance paths into Gloucester are generally well spaced between 1M CrossCountry services ahead and 2G TfW services behind. 2G services run from Cardiff rather than Maesteg in the Wales ESG development timetable.

When leaving Gloucester, paths are more constrained. The exact structure varies, but Alliance paths generally run close to 2C Gloucester to Westbury services and 1L Cheltenham Spa to London services.

2G services sometimes behind proposed Alliance timings into Gloucester perform poorly (Figure 18), however, these flows are changed in the Wales ESG development timetable. 1M services deteriorate into and out of Gloucester but this is starkest in on time and T-3 (Figure 19).

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Lydney	31.9 %	56.2 %	69.1 %	742
Awre	29.0 %	51.7 %	66.3 %	718
Gloucester	12.7 %	32.5 %	52.1 %	718
Horton Road Jn	28.8 %	53.9 %	67.5 %	594

Figure 18: 2G TfW services (Maesteg to Cheltenham)

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Chepstow	74.5 %	88.2 %	92.9 %	756
Lydney	75.4 %	88.5 %	92.2 %	757
Awre	64.0 %	82.4 %	88.0 %	756
Gloucester	58.8 %	76.9 %	86.0 %	758
Horton Road Jn	59.9 %	78.8 %	87.8 %	793
Barnwood Jn.	60.3 %	79.6 %	87.9 %	793
Cheltenham Spa	51.2 %	72.6 %	83.9 %	793

Figure 19: 1M CrossCountry services (Cardiff to Birmingham/Nottingham)

1L and 2C services have very different performance characteristics with 2Cs having a reasonable rate of right time starts, and reasonable performance in T-3 and T-5 (Figure 20), however 1L services perform poorly with poor right time starts and poor on time performance into Gloucester and a significant deterioration in all measures around Standish Junction after leaving Gloucester (Figure 21).

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Gloucester	86.7 %	93.7 %	95.6 %	413
Horton Road Jn	86.6 %	94.4 %	95.6 %	410
Gloucester Yard Jn	84.7 %	94.2 %	95.6 %	411
Standish Jn	60.7 %	89.3 %	94.9 %	410
Charfield	78.5 %	90.3 %	94.7 %	413

Figure 20: 2C services (Gloucester to West of England)

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Cheltenham Spa	64.7 %	75.7 %	82.6 %	886
Barnwood Jn.	53.8 %	71.6 %	80.1 %	885
Horton Road Jn	33.0 %	67.4 %	76.7 %	883
Gloucester	39.4 %	68.9 %	78.6 %	883
Horton Road Jn	50.4 %	70.4 %	78.9 %	913
Gloucester Yard Jn	48.7 %	69.3 %	78.8 %	918
Standish Jn	25.9 %	51.9 %	70.4 %	903
Stonehouse	24.6 %	51.5 %	67.7 %	907

Figure 21: 1L services (Cheltenham to London)

Cheltenham Spa

Regular conflicts were identified between Alliance schedules and other services at Cheltenham Spa. The station is served by GWR and TfW services that terminate here in the down direction on Platform 2, and all terminating services require an ECS move to and from Alstone Carriage Sidings to then form the next up service from platform 1 (as shown in Figure 22).

Table 7 shows unresolved conflicts at and around Cheltenham Spa.

Alliance ID	Conflicting schedule	Type of Conflict	Conflict Rating
1V99TH	2L57DB (TfW SX Cheltenham Spa-Maesteg)	Headway	Major
1V99TH	1V52DB (CrossCountry SX Edinburgh-Plymouth)	Headway	Major
1V93BB	2L69DB (TfW SX Cheltenham Spa-Maesteg)	Headway	Major
1V93BB	1V64DB (CrossCountry SX Edinburgh-Plymouth)	Headway	Fundamental
1V67BB	5G29DA (GWR SX Worcester Shrub Hill-Stoke Gifford)	Headway	Major
1V67BB	1V71DC (CrossCountry SX Edinburgh – Bristol Temple Meads)	Headway	Fundamental
1V41DD	6V82DB/DC (MTHO, MO DB GB Railfreight Clitheroe Castle Cement/Coton Hill – Avonmouth)	Headway	Major
1S81BB	2G44DB (TfW SX Bridgend – Cheltenham Spa)	Headway	Fundamental
1S85CC	2G54JS (TfW SX Cardiff Central – Cheltenham Spa)	Headway	Fundamental

Table 7: Unresolved conflicts at and around Cheltenham Spa

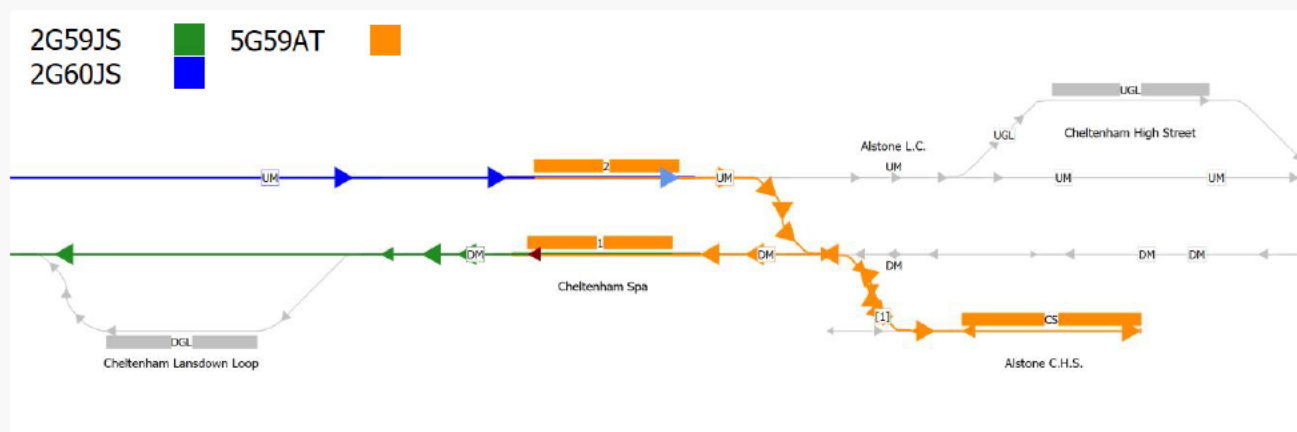


Figure 22: ECS move required for services terminating and starting at Cheltenham

Northbound trains:

Potential solution to avoid conflicts would be in combination of the solution explored at Gloucester (having the Alliance paths pass Barnwood Junction after the 1S CrossCountry services):

- the 2G Tfw services could arrive Cheltenham up to 2 minutes later, and associated ECS moves departing 2 later, and reduced time for the reverse move at Alstone to meet the departure times from platform 1.
- the 1G GWR services following from Gloucester arrive 2 minutes later, and associated ECS move departing 2 later, and reduced time for reverse move at Alstone to meet the departure times from platform 1.

Southbound trains:

4 out of 5 southbound Alliance trains have headway conflicts in the Cheltenham area (1V99, 1V93, 1V67, 1V41). These are a combination of conflicts with schedules originating from Cheltenham, one freight schedule, and the headway conflict with CrossCountry trains. The conflict with CrossCountry starts from Birmingham and carries onto Gloucester.

C.02.05 Birmingham New Street

Sufficient platform capacity exists at Birmingham New Street for Alliance services against the June '24 base and with the dwells used in this analysis, but it is important to note that there are constraints to be kept in mind when selecting appropriate platforms.

Table 8 shows unresolved conflicts between Alliance schedules and other schedules at Birmingham New Street.

Alliance ID	Conflicting Schedule	Type of Conflict	Conflict Rating
1V67BB	1V71DC (CrossCountry SX Edinburgh - Bristol Temple Meads)	Clash	Fundamental
1V67BB	2R67GG (West Midlands Trains SX Four Oaks - Redditch)	Headway	Major
1V93BB	3J11EB (Seasonal SX London Marylebone - Kings Norton)	Headway	Major
1V93BB	1V64DB (CrossCountry SX Edinburgh - Plymouth)	Clash	Fundamental
1S81BB	2O16GG (West Midlands Trains SX Lichfield Trent Valley - Bromsgrove)	Junction Margin	Major
1S85CC	2U24GG (West Midlands Trains SX Redditch - Four Oaks)	Headway	Minor
1S85CC	1L38HX (CrossCountry SX Birmingham New Street - Cambridge)	Headway	Minor
1S87BB	2U08GG (West Midlands trains SX Redditch - Four Oaks)	Platform Reoccupation	Minor

Table 8: Schedules conflicting with Alliance schedules in the Birmingham area

Many of the constraints at Birmingham are partially or fully avoidable as long as Alliance services remain in platforms 7-12. This is due to reducing the number of potentially conflicting moves either within the station or at junctions just beyond it, which then minimises interactions with other operators.

The constraints in these platforms are related to the platform usage of the West Midlands Trains and CrossCountry services. Both operators operate a combination of hourly and half hourly services along with platform sharing where required. Alliance services do not currently fit into this pattern as they do not have consistent timings through Birmingham. As a result, they alternate platforms around other operators.

Overview of Performance

	Dec22			May23			Dec23		
	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %
Avanti West Coast	41.1 %	61.9 %	72.1 %	30.4 %	53.8 %	67.0 %	46.6 %	66.0 %	75.3 %
CrossCountry	41.8 %	67.8 %	80.3 %	36.1 %	58.2 %	71.8 %	39.0 %	63.0 %	76.2 %
TfW Rail Limited	31.9 %	61.6 %	76.5 %	26.7 %	51.8 %	64.6 %	38.1 %	63.3 %	75.5 %
West Midlands Trains	55.2 %	78.0 %	88.0 %	46.6 %	70.4 %	82.8 %	52.3 %	76.6 %	87.1 %

Figure 23: Performance at Birmingham New Street in successive timetables

Birmingham New Street is a complex location and is sensitive to perturbation.

Performance at Birmingham New Street is below the national average in all timetables (Figure 23). On Time has improved in Dec 23 to date from May 23. Avanti have improved in relation to Dec 22.

Flows Likely to affect Alliance Paths: Southbound

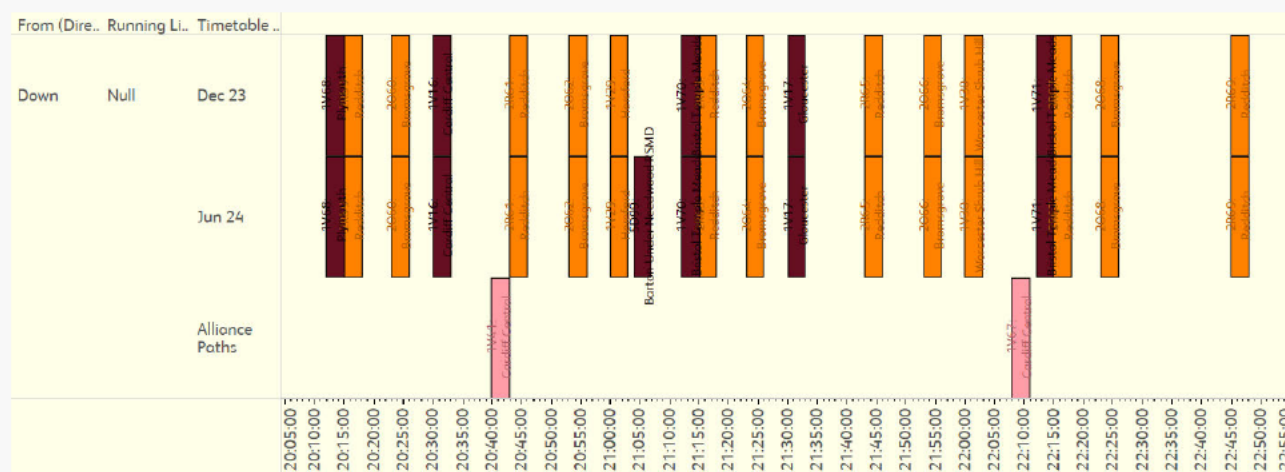


Figure 24: Sample Headway view of location of 1V41 and 1V67 in flighting on Derby Lines.

Figure 24 shows a sample headway view of two of the proposed southbound Alliance schedules. Headways of 3 minutes are displayed, with Alliance shown in pink, CrossCountry in burgundy and West Midlands Trains in orange.

There is variability in the services around Alliance paths in the Birmingham area, and not all paths have the same interactions.

On arrival at Birmingham services running around the Alliance paths are variable, however they are often run around 1G Nottingham to New Street and 1V Scotland to the South West services (Figure 25).

On leaving Birmingham the train preceding the Alliance paths are approximately 10 minutes ahead. 3 of the 5 paths run approximately 4 minutes ahead of 1V Scotland to the South West Paths. 2 of the 5 paths run 3 minutes ahead of 2R Four Oaks to Redditch services.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Wichnor Jn	43.8 %	61.7 %	71.6 %	507
Tamworth HI	40.2 %	58.8 %	70.4 %	507
Kingsbury Jn	46.0 %	61.7 %	73.0 %	507
Water Orton	45.2 %	59.4 %	72.6 %	507
Castle Bromwich Jn	41.9 %	57.5 %	70.8 %	480
Landor Street Jn	46.0 %	60.6 %	72.2 %	507
Grand Jn	48.0 %	62.2 %	73.9 %	460
Proof House Jn	47.1 %	61.1 %	71.8 %	507
Birmingham New Street	35.3 %	54.4 %	67.7 %	507
Five Ways	55.6 %	67.7 %	73.9 %	464
Selly Oak	50.5 %	64.8 %	71.9 %	491
Kings Norton	52.2 %	64.3 %	71.2 %	496
Longbridge	48.6 %	62.9 %	70.8 %	496
Barnt Green	57.1 %	67.3 %	72.6 %	496
Bromsgrove	55.4 %	65.7 %	71.6 %	496

Figure 25: 1V CrossCountry services (Scotland to South-west)

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Kingsbury Jn	77.7 %	86.3 %	92.6 %	882
Water Orton	65.1 %	81.0 %	89.0 %	883
Castle Bromwich Jn	62.7 %	79.5 %	87.9 %	883
Landor Street Jn	64.8 %	80.6 %	88.6 %	883
Proof House Jn	59.7 %	78.3 %	88.6 %	883
Birmingham New Street	35.1 %	65.6 %	81.8 %	883

Figure 26: 1G CrossCountry services (Nottingham to New Street)

All services likely to interact with Alliance paths around Birmingham deteriorate into New Street in all performance measures. 1G services running close ahead of Alliance paths on a similar route may present a risk to Alliance services (Figure 26). Services following Alliance paths generally recover a little out of Birmingham (Figure 27).

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Aston	64.3 %	83.4 %	91.0 %	2,216
Duddeston	57.3 %	80.7 %	90.5 %	2,218
Proof House Jn	58.7 %	81.2 %	90.5 %	2,218
Birmingham New Street	44.4 %	74.1 %	87.0 %	2,218
Five Ways	54.0 %	77.3 %	88.2 %	2,235
University	56.6 %	77.6 %	88.5 %	2,235
Selly Oak	63.6 %	81.1 %	90.1 %	2,235
Bournville	65.5 %	81.4 %	90.4 %	2,227
Kings Norton	49.0 %	74.8 %	86.7 %	2,234
Longbridge	56.1 %	76.2 %	87.7 %	2,234
Barnt Green	61.8 %	79.6 %	88.8 %	2,224
Alvechurch	74.2 %	86.0 %	91.6 %	2,209
Weights Lane Jn	73.1 %	85.6 %	91.4 %	2,209
Redditch	63.9 %	80.4 %	89.2 %	2,209

Figure 27: 2R West Midlands Trains services (Four Oaks to Redditch)

From (Dire.. Running Li.. Timetable ...			
Up	DEL	Dec 23	<div> <div>TS21 Chicks Trent Valley</div> <div>TS21 Chicks Trent Valley</div> </div>
			<div> <div>TS49 Bristol Temple Mead</div> <div>TS49 Bristol Temple Mead</div> </div>
		Jun 24	<div> <div>TS22 Four Oaks</div> <div>TS01 Nottingham</div> </div>
			<div> <div>TS01 Nottingham</div> <div>TS01 Nottingham</div> </div>
			<div> <div>TS49 King's Norton</div> <div>TS49 King's Norton</div> </div>
			<div> <div>TS41 Edinburgh</div> <div>TS23 Chicks Trent Valley</div> </div>
			<div> <div>TS09 Nottingham</div> <div>TS09 Nottingham</div> </div>
			<div> <div>TS04 Four Oaks</div> <div>TS04 Four Oaks</div> </div>
			<div> <div>TS38 Cambridge</div> <div>TS38 Cambridge</div> </div>
			<div> <div>TS85 Reading</div> <div>TS85 Reading</div> </div>
Alliance Paths		<div> <div>TS01 Bristol Temple Mead</div> <div>TS01 Bristol Temple Mead</div> </div>	
		<div> <div>TS26 Four Oaks</div> <div>TS26 Four Oaks</div> </div>	
		<div> <div>TS60 Nottingham</div> <div>TS60 Nottingham</div> </div>	
		<div> <div>TS13 Leicester</div> <div>TS13 Leicester</div> </div>	
		<div> <div>TS23 King's Norton</div> <div>TS23 King's Norton</div> </div>	
		<div> <div>TS85 Edinburgh</div> <div>TS85 Edinburgh</div> </div>	
		<div> <div>TS85 Reading</div> <div>TS85 Reading</div> </div>	
		<div> <div>TS01 Bristol Temple Mead</div> <div>TS01 Bristol Temple Mead</div> </div>	

Figure 28 shows a sample headway view of one of the proposed northbound Alliance schedules. Headways of 3 minutes are displayed, with Alliance shown in pink, CrossCountry in burgundy and West Midlands Trains in orange.

On approach to Birmingham the Alliance paths generally follow 2U Redditch to Four Oaks services. They are sometimes followed (2/5) by 1M Bristol to Manchester Services

On leaving New Street, northbound Alliance paths are generally following 2U Redditch to Four Oaks services on the Derby lines, and are followed by 1L Birmingham to Cambridge/Stansted services on the Derby lines.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Redditch	86.9%	93.5%	96.3%	1,712
Alvechurch	87.9%	93.7%	96.5%	1,706
Barnt Green	87.1%	93.5%	96.4%	1,712
Longbridge	66.2%	86.1%	93.6%	1,725
Kings Norton	60.5%	89.7%	95.5%	1,731
Bournville	68.3%	89.7%	95.4%	1,731
Selly Oak	71.7%	89.7%	95.2%	1,731
University	61.4%	87.2%	94.5%	1,731
Five Ways	61.2%	86.3%	93.9%	1,731
Birmingham New Street	53.1%	81.5%	91.0%	1,731
Proof House Jn	55.4%	81.8%	90.5%	1,713
Duddeston	64.4%	83.9%	91.3%	1,713
Aston	70.8%	85.9%	92.4%	1,713
Gravelly Hill	54.6%	79.7%	90.5%	1,713
Erdington	61.6%	82.0%	91.5%	1,713
Chester Road	58.8%	80.8%	91.2%	1,713
Wylde Green	55.3%	79.8%	91.0%	1,706
Sutton Coldfield	57.5%	80.9%	91.5%	1,712
Four Oaks	47.5%	75.0%	89.0%	1,712

On the side of passengers and freight users

Performance of the 2U services is likely to be important to proposed Alliance paths, as Alliance services are planned to follow this flow into and out of Birmingham New Street. 2U services are reasonable at T-3 and T-5, although both deteriorate through Birmingham New Street (Figure 29). Following CrossCountry services perform poorly through the area (Figure 30 and Figure 31).

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Barnt Green	36.6 %	55.3 %	67.5 %	434
Longbridge	32.0 %	51.4 %	62.9 %	434
Kings Norton	37.3 %	55.5 %	68.2 %	434
Birmingham New Street	28.7 %	49.2 %	64.8 %	435
Soho South Jn	51.4 %	68.8 %	76.9 %	455
Galton Jn	55.3 %	70.0 %	77.9 %	456
Dudley Port	50.3 %	67.7 %	75.8 %	455
Wolverhampton	43.5 %	59.7 %	69.8 %	457

Figure 30: 1M CrossCountry services (Bristol to Manchester)

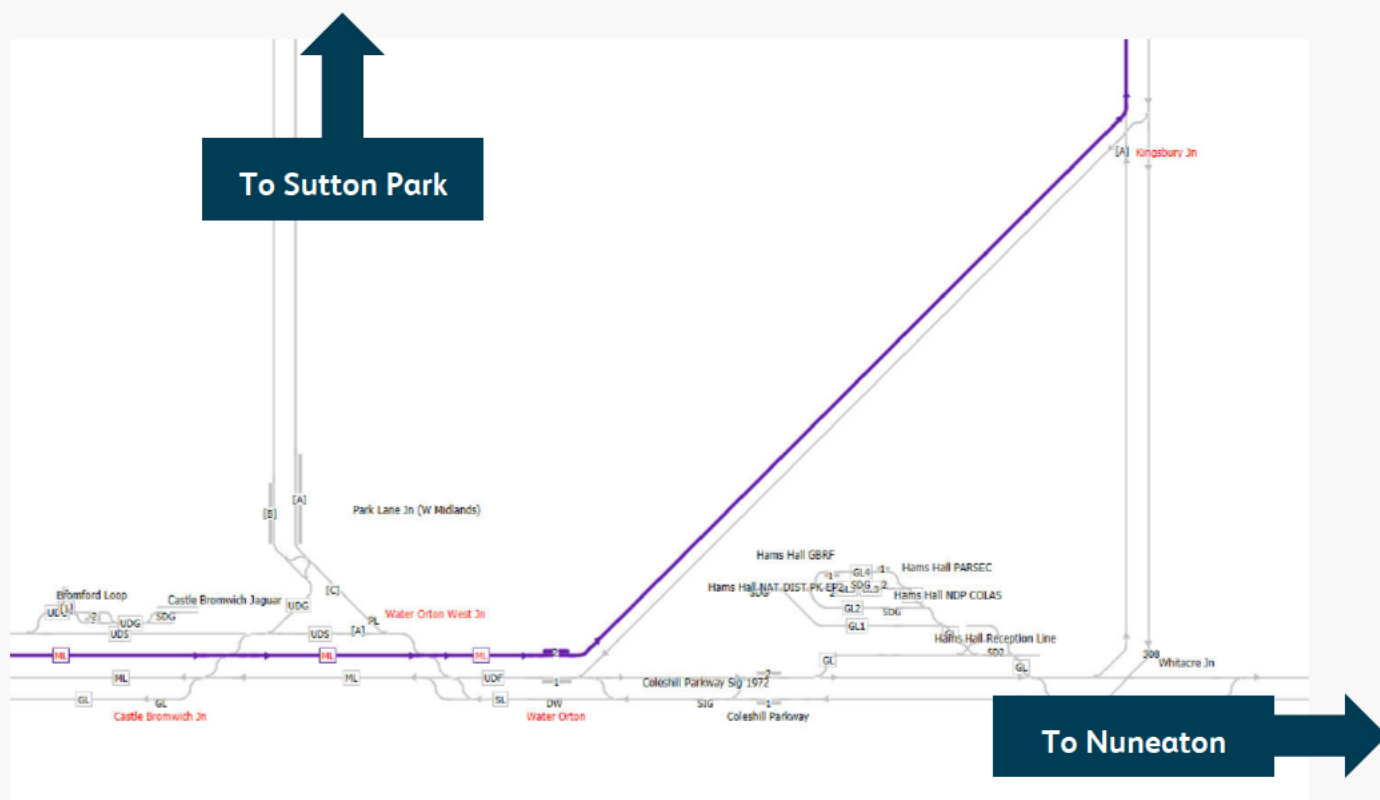
	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Birmingham New Street	50.5 %	74.1 %	85.7 %	746
Proof House Jn	40.7 %	69.7 %	83.6 %	745
Landor Street Jn	44.1 %	71.3 %	84.2 %	746
Castle Bromwich Jn	35.7 %	66.8 %	81.5 %	745
Water Orton	30.1 %	62.1 %	78.5 %	744
Coleshill Parkway	38.1 %	66.5 %	80.1 %	743
Whitacre Jn	36.4 %	65.1 %	79.6 %	745

Figure 31: 1L CrossCountry services (Birmingham to Cambridge/Stansted)

C.02.06 Water Orton

Water Orton and the neighbouring Water Orton West, Whitacre and Kingsbury Junctions are a significant constraint on the Alliance routes in both directions, as well as being within the section of significant mismatch between the June 24 timetable and the ECML ESG development timetable as outlined in C.01.03.

Northbound services have fewer potential conflicting moves than southbound services due to a lack of crossing moves at Kingsbury Junction and fewer potentially conflicting moves at Water Orton West Junction (see Figure 32).



C.02.07 Sheffield area

Alliance ID	Conflicting Schedule	Type of Conflict	Conflict Rating
1V41DD	6M61FB (GB Railfreight MO Attercliffe Sdgs - Liverpool)	Junction Margin	Major
1S81BB	4E84GA (GB Railfreight SX Seaforth C.T. - Doncaster Iport)	Headway	Minor
1S85CC	6H11PD (DB Cargo TFO Toton Up Sidings - Dowlow Briggs) Indirect conflict caused by 1E32XC	Junction Margin	Major
1S85CC	0E96GA (Freightliner Heavy Haul SX Hope Earles Sidings - Barrow Hill Up Sidings) Indirect conflict caused by 1E32XC	Junction Margin	Major
1S85CC	4O95CA (Freightliner Intermodal SX Leeds F.L.T. - Southampton M.C.T.) Indirect conflict caused by 1E32XC	Junction Margin	Major
1S87BB	6E56GB (Freightliner Heavy Haul MO, MSX Tunstead - Drax)	Clash	Fundamental
1S89BB	6H45FA/ 6H45PD (Freightliner Heavy Haul MO, TWO Banbury - Tunstead Sdgs)	Junction Margin	Fundamental
1S91BB	6H92FH/ 6M92FH (Freightliner Heavy Haul SX Luton Crescent Road/ West Thurrock - Tunstead)	Junction Margin	Fundamental

Table 9: Schedules conflicting with Alliance schedules in the Sheffield area

Platform capacity exists at Sheffield station for the Alliance schedules against the ECML ESG database, however there are unresolved conflicts between Alliance and other schedules related to the southern and northern approach of the station, as shown in Table 9.

Dore Junctions south of Sheffield:

- Headway is 4 minutes between Chesterfield and Sheffield. This is a challenge for the northbound schedules when following class 6 freight schedules from Chesterfield. Resolution to these conflicts following freight trains to the Hope Valley were explored however solutions were not found for two Alliance schedules, due to the specific service pattern in the Hope Valley (Absolute Block headway sections) the freight needs to meet, and trailing length of the freight schedule limiting stopping options to allow other trains to pass. For the southbound trains, the junctions and headway weren't a constraint.
- Any other crossing moves at Dore South Junction and Dore Station Junction which are key for passenger and freight services to and from the Hope Valley, affecting capacity in the area, as shown on Figure 34, relating to 1S89, 6H45 (conflicting) and 2S89 (compliant).

Nunnery Main Line Junction north of Sheffield:

- Headway is 3 minutes from Sheffield to Swinton, which is a constraint when following class 6 schedules due to their speed.

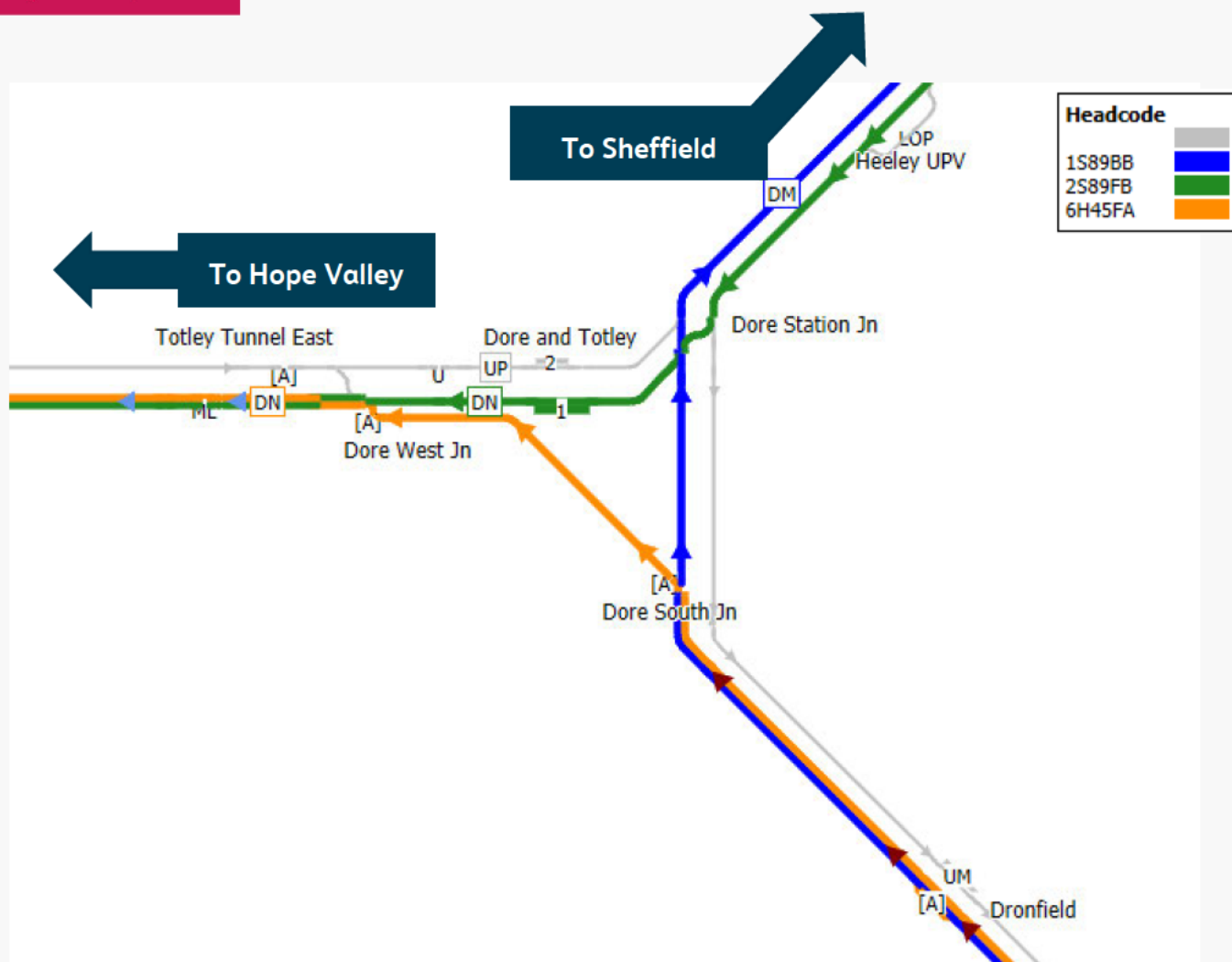


Figure 34: Dore Junctions south of Sheffield.

Overview of Performance

Operator Name	Dec22			Timetable May23			Dec23		
	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %
CrossCountry	43.7%	65.9%	79.3%	37.0%	55.7%	68.7%	34.0%	54.1%	67.8%
EMR	48.0%	69.6%	80.9%	43.5%	63.6%	75.5%	41.0%	61.7%	75.0%
Northern Trains	61.3%	80.5%	89.1%	55.1%	75.5%	86.2%	57.1%	77.8%	87.9%
TransPennine	43.4%	66.7%	77.4%	43.4%	62.7%	75.0%	42.3%	64.2%	78.2%

Figure 35: Performance at Sheffield in successive timetables

Weekday performance is poor at Sheffield with performance deteriorating for each operator in OT, T-3, and T-5 (Figure 35). This is consistent across operators. Although there is heterogeneity with individual flows, performance remains on a general downward trend and is well below the national average. The performance figures don't take the remodelled Dore Station into account as it doesn't exist in the December 23 timetable.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Mexborough	63.7 %	84.3 %	92.0 %	1,131
Aldwarke Jn	56.9 %	81.8 %	91.2 %	1,131
Holmes Jn	51.1 %	78.3 %	89.9 %	1,131
Meadowhall	46.5 %	76.7 %	88.9 %	1,131
Nunnery Main Line Jn	63.9 %	82.7 %	90.2 %	1,130
Sheffield	51.2 %	74.9 %	87.3 %	1,130

Figure 38: 1J Northern services (Yorkshire Coast to Sheffield)

On leaving Sheffield, northbound Alliance paths are generally behind 1R (Norwich to Liverpool) services and ahead of CrossCountry 1V services (Scotland to South Coast). 1Rs run approximately 8 minutes ahead of proposed Alliance timings and perform poorly (Figure 39). They do not recover at Sheffield and have increased risk as the dwell is a reversing move. The follow 1V services also perform poorly through Sheffield (Figure 40).

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Chesterfield South Junctio..	49.7 %	71.1 %	80.5 %	827
Chesterfield	50.4 %	69.6 %	80.1 %	828
Dore Station Jn	49.3 %	72.9 %	83.1 %	779
Sheffield	37.0 %	64.0 %	79.0 %	827
Dore Station Jn	35.7 %	62.9 %	78.8 %	824
Totley Tunnel East	26.1 %	56.9 %	73.9 %	851
Grindleford	22.5 %	52.0 %	71.4 %	786
Earles SDGS S.B.	26.7 %	53.5 %	71.0 %	851

Figure 39: 1R East Midlands Railway services (Norwich/Nottingham to Liverpool/Manchester)

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Moorthorpe	53.8 %	71.2 %	78.3 %	437
Swinton (S.Yorks)	21.8 %	49.2 %	64.6 %	441
Aldwarke Jn	34.0 %	55.8 %	68.7 %	441
Holmes Jn	31.7 %	52.8 %	66.9 %	441
Nunnery Main Line Jn	40.3 %	60.2 %	73.8 %	442
Sheffield	37.3 %	57.7 %	73.1 %	442
Dore Station Jn	25.2 %	48.6 %	66.1 %	440
Tapton Jn	20.8 %	43.7 %	62.2 %	437
Chesterfield	27.4 %	48.5 %	66.7 %	441

Figure 40: 1V CrossCountry services (Scotland to South Coast)

Flows likely to affect Alliance Rail paths: Northbound

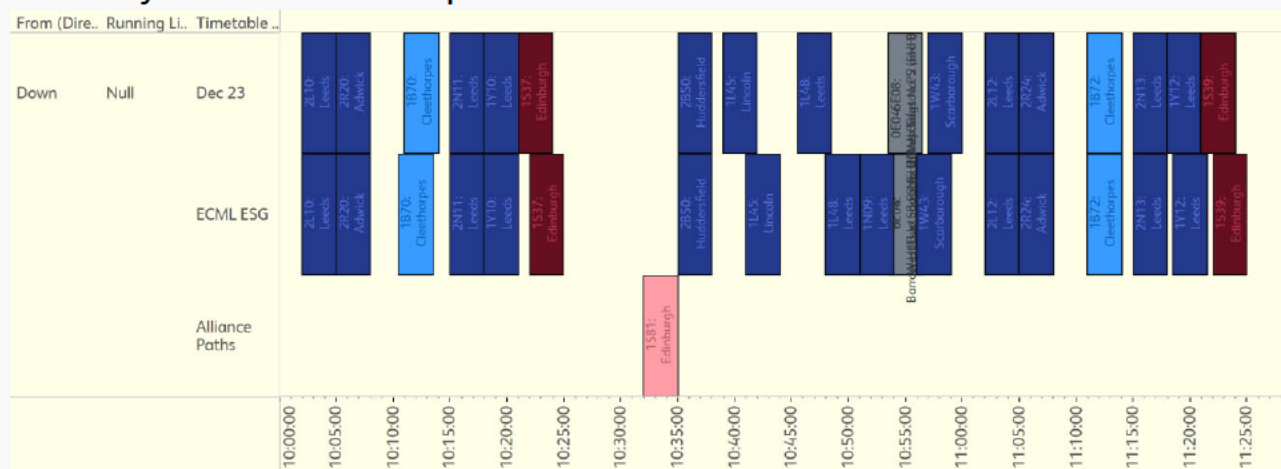


Figure 41: Sample Headway View of location of 1S81 in flighting.

Headways of 3 minutes are displayed, with Alliance shown in pink, CrossCountry in burgundy, Northern in dark blue, TransPennine Express in light blue and freight services in grey.

The structure of the Dec 23 timetable in this area is significantly different to that of the ECML ESG, and it is important to note that this analysis has used the ECML ESG development timetable as a base for the timings of this assessment. This and the approximately 2 hourly interval means there will be exceptions and slight differences, here we look at the general case.

On approach to Sheffield, northbound paths generally run approximately 10 minutes behind CrossCountry 1S paths and approximately 5 minutes ahead of the East Midlands Railway Liverpool to Norwich paths on approach to Sheffield (Figure 42).

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Chinley North Jn	11.8 %	55.3 %	74.1 %	611
Earles SDGS S.B.	5.2 %	39.8 %	67.5 %	610
Grindleford	2.5 %	35.6 %	63.7 %	564
Totley Tunnel East	40.8 %	64.2 %	77.9 %	611
Dore Station Jn	25.6 %	53.8 %	72.8 %	589
Sheffield Sig S77	35.1 %	58.2 %	74.3 %	521
Sheffield	25.4 %	51.5 %	68.8 %	590
Dore Station Jn	26.8 %	53.9 %	70.2 %	590
Tapton Jn	31.0 %	54.0 %	70.5 %	607
Chesterfield	28.2 %	52.2 %	69.1 %	611

Figure 42: East Midlands Railway services (Liverpool to Norwich)

On leaving Sheffield, northbound Alliance paths are generally approximately 10 minutes behind CrossCountry 1S paths and running on minimums ahead of Northern 2B services from Sheffield to Huddersfield. The 1S CrossCountry services generally preceding Alliance paths perform poorly (Figure 43), however the risk would be mitigated by the large gaps currently planned.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Chesterfield South Junction	12.1 %	45.6 %	63.1 %	447
Chesterfield	36.6 %	57.8 %	67.6 %	448
Sheffield	19.6 %	43.8 %	60.0 %	448
Nunnery Main Line Jn	30.2 %	47.9 %	65.3 %	447
Holmes Jn	19.7 %	43.3 %	61.9 %	446
Aldwarke Jn	19.3 %	41.9 %	61.0 %	446
Swinton (S.Yorks)	17.7 %	40.4 %	57.4 %	446

Figure 43: 1S CrossCountry services (South Coast to Scotland)

The 2B services running behind Alliance paths have a poor right time start (Figure 44). However, these services would be affected by any late running of northbound Alliance services, as they would likely be regulated behind Alliance services.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Sheffield	63.1 %	80.2 %	89.4 %	1,240
Nunnery Main Line Jn	67.6 %	82.6 %	90.6 %	1,239
Meadowhall	52.7 %	76.9 %	87.0 %	1,240
Chapelton	59.3 %	79.1 %	88.3 %	1,242
Elsecar	45.5 %	73.8 %	85.0 %	1,242

Figure 44: 2B Northern services (Sheffield to Huddersfield)

C.02.08 Doncaster area

Platform capacity exists at Doncaster station for the Alliance schedules in their current time slots against the ECML ESG database and used platforms, however there are capacity constraints related to junctions outside of the station, shown in Table 10:

- Marshgate Junction: conflicts due to converging and diverging routes to and from Leeds, York and Cleethorpes, in combination with Doncaster platform-end and re-occupation values.
- Temple Hirst Junction: a concern for the southbound Alliance schedules with any other Train Operator service service turning towards Selby. One such conflict was not resolved, between 1H03 and 1V91 southbound schedule.

Alliance ID	Schedule	Type of Conflict	Conflict Rating
1V41DD	1Y22LN (LNER SX Newcastle – London King’s Cross) Indirect conflict caused by 1Y23GN	Headway	Major
1V91CC	1A26LN (LNER SX Leeds – London King’s Cross) Indirect conflict caused by 4D08GY	Headway	Major
1V91CC	6D61PY (DB Cargo MO Scunthorpe Roxby Gullet – Rossington) Indirect conflict caused by 4D08GY	Headway	Major
1V99TH	1A18LN (LNER SX Leeds - London King’s Cross)	Headway	Major
1V99TH	1A70GC (Grand Central SX Bradford Interchange - London King’s Cross)	Headway	Major

Alliance ID	Schedule	Type of Conflict	Conflict Rating
1S81BB	1S10LN (LNER SX London Kings Cross - Edinburgh)	Headway	Minor
1S85CC	6X71GD 6N71GA (GB Railfreight SX Doncaster Up Decoy – Tyne S.S.) Indirect conflict caused by 1E32XC	Clash	Fundamental
1S89BB	1A67CH (Grand central SX Bradford Interchange - Kings cross)	Junction Margin	Major
1S89BB	0D01GB (DB Cargo THO Tinsley S.S. - Belmont Down Yard)	Headway	Minor

Table 10: Unresolved conflicts at and around Doncaster

C.02.09 York

Platform capacity exists at York station for the Alliance schedules against the ECML ESG database, however there are unresolved conflicts between the northbound Alliance and other schedules at the station and between the southbound and other schedules related to the southern end of the station, as shown in Table 11.

Alliance ID	Conflicting schedule	Type of Conflict	Conflict Rating
1V91CC	1U44GA (TransPennine Express EWD Scarborough-Manchester Victoria) Indirect conflict caused by 1N08 retime	Junction Margin	Major
1V93BB	1V64XC (CrossCountry SX Edinburgh-Plymouth) Indirect conflict caused by 2R21	Headway	Major
1S81BB	2M70FB (TransPennine Express EWD York-Manchester Piccadilly) Indirect conflict caused by 1B20 replatforming	Platform re-occupation	Major
1S85CC	2M74FB (TransPennine Express EWD York-Manchester Piccadilly) Indirect conflict caused by 1B27 replatforming	Platform re-occupation	Major
1S87BB	1B21AG (Northern EWD York-Blackpool)	Platform clash	Major
1S87BB	1U32GT (TransPennine Express EWD Scarborough-Blackpool)	Junction Margin	Major

Table 11: Unresolved conflicts at and around York

Platform capacity for northbound trains:

The through platforms (3-4, 5, 9, 10, 11) at the station are either occupied at the times the northbound schedules stop at the station (XX:19-XX:22), or the required platform occupation value can't be met between the Alliance schedules and interacting services.

The northbound Alliance schedules use platform 11, which clashed with the 1B services operated by Northern from Blackpool, that terminate on this platform. Re-platforming the 1B services was explored, by moving them into platform 6 or 7. Whilst the York to Blackpool departures are conflict free when departing platform 6 or 7, the inbound trains caused platform reoccupation conflicts with any other trains departing platform 6 or 7. A solution wasn't found without causing further conflicts with other services at the station.

Platform capacity for southbound trains:

In the southbound direction, platform 3 and 5 has capacity for the Alliance paths in their current timings, however changes were made to other services by either routing them onto the Slow Lines or the Down Line approaching the station from the north, enabling parallel running with the Alliance schedules on the Fast Lines.

Four Alliance schedules had a recurring conflict approaching the station on the Fast lines:

- 1P services from Saltburn to Manchester Airport operated by TransPennine Express, clashing with the Alliance schedules at Thirsk at XX:29: resolved by moving the 1P schedules over to the Slow lines between Thirsk-Tollerton Junction to be parallel with the Alliance paths. To account for Slow line running, the dwells at York were reduced from 6 minutes to 2 to get back to booked. 2 minutes is the minimum for TransPennine Express and requires agreement from the operator. A reduced dwell for these services presents a risk for timetable performance and resilience for the North Trans-Pennine route.
- 2C services from Leeds to York, via Harrogate, operated by Northern clashed with Alliance schedules at Skelton Junction at XX:41. For 1V93 and 1V99 these schedules were moved to the Down Line between Skelton Junction and York, to enable capacity on the Up Fast into York. This caused a junction margin conflict with the York-Leeds trains via Harrogate, so the York-bound schedules were stopped at Skelton Junction before entering the single lead towards York. This caused a 3-minute extension to journey times for 2C34 and 2C10.

C.02.10 Darlington

There is an established network change in place for future track changes in and around Darlington station, currently scheduled for commissioning in September 2025, and it has been assumed in this analysis that this would be in place prior to any running of Alliance Rail's services in the December 2025 timetable change.

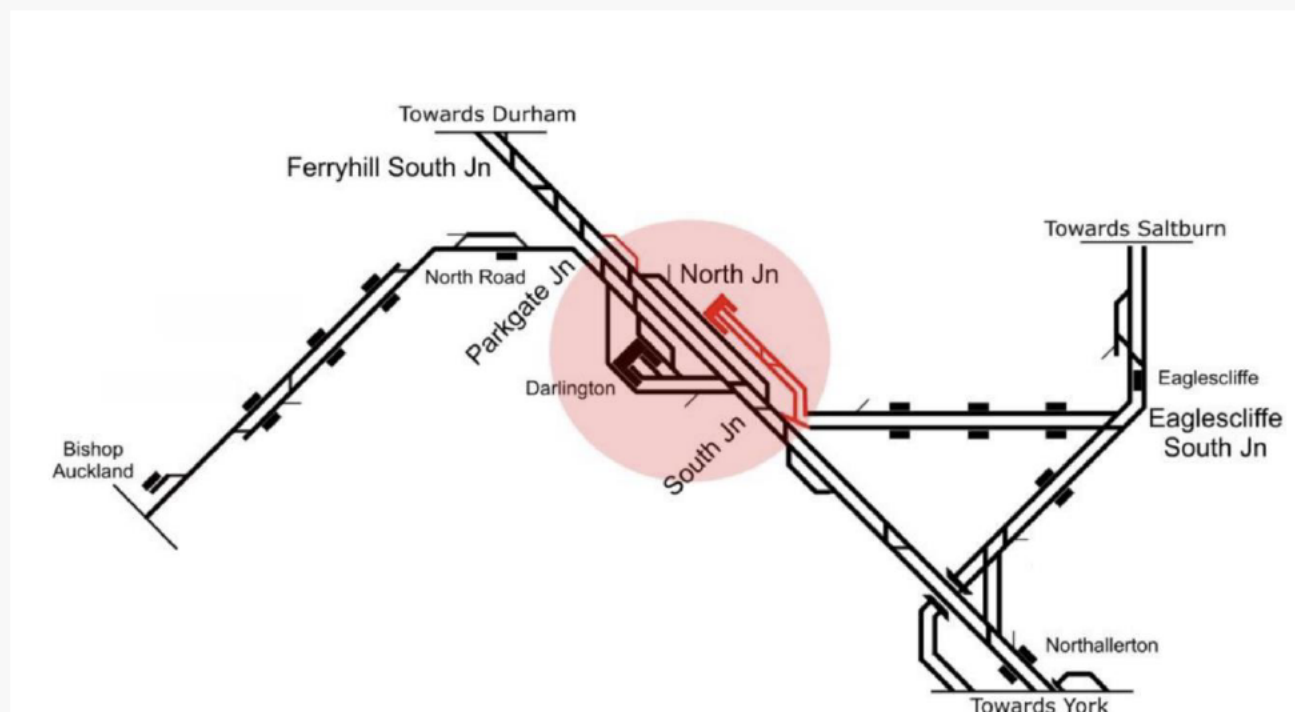


Figure 45: Proposed new layout of Darlington Station



This new layout includes a new through platform (5) on the east side of the ECML at Darlington, which will remove the need for southbound long-distance services to cross the Down Main to call at Darlington, reducing conflicting moves, and 2 new bay platforms (6&7) will remove the need for local terminating services from Teesside to cross the ECML at Darlington South Junction, as well as providing the capability for the existing through services from Bishop Auckland to Saltburn to be split at Darlington. The intended layout is shown in Figure 45, with new infrastructure shown highlighted in red.

Changes to services to accompany this infrastructure change are not included within the base ECML development timetable used by this analysis. Due to this it has been assumed that identified conflicts between services that would be resolved by the new infrastructure are not counted as part of the outputs. These conflicts are shown in Table 12, but not otherwise counted as part of total conflicts in this analysis.

Headcode	Conflicting Alliance schedule	Origin	Origin time	Destination	Destination time	Conflict description
2D42QQ	1V93BB	Bishop Auckland	14:54	Saltburn	17:17	2D42 departs P1 2.5m after 1V93 passed UML
2D58QQ	1V67BB	Bishop Auckland	18:54	Saltburn	20:17	Departs P1 2.5m after 1V67 passed UML
2D09QQ	1V99TH	Saltburn	08:26	Bishop Auckland	09:46	2D09 has only 1m junction margin with 1V99 at Darlington South Junction.
2D33QQ	1V93BB	Saltburn	14:26	Bishop Auckland	15:46	2D33 has only 0.5m junction margin with 1V93 at Darlington South Junction.
2D43QQ	1V41TH	Saltburn	17:00	Bishop Auckland	17:53	2D43QQ arrives at Darlington P2 at 17:53, 0.5m before 1V41 passes the Up Main.
2D49QQ	1V67BB	Saltburn	18:26	Bishop Auckland	19:46	Has only 1m junction margin with 1V67 at Darlington South Junction.
2D28QQ	1V91CC	Darlington	12:01	Saltburn	12:53	2D28 has only 1m junction margin with 1V91 at Darlington.

Table 12: Schedules conflicting with Alliance schedules in the Darlington area

C.02.11 Edinburgh

Full details of moves in and around Edinburgh Waverley could not be considered as part of this analysis, however validity of moves to and from accessible platforms was considered. Any identified conflicts are shown in Table 13.

ID	Direction	Time	Preceding or next move (based on provisional diagrams)
1V99TH	Southbound	07:27	ECS from depot
1V91CC	Southbound	10:02	ECS from depot
1S87BB	Northbound	11:38	ECS to depot
1V93BB	Southbound	13:27	ECS from depot
1S81BB	Northbound	13:38	Potential shunt to depot, form the 16:00 to Cardiff
1S85CC	Northbound	15:38	Potential shunt to depot, form the 17:27 to Cardiff
1V41DD	Southbound	16:00	To be formed from 13:38 arrival
1V67BB	Southbound	17:27	To be formed from 15:38 arrival
1S89BB	Northbound	19:53	ECS to depot
1S91BB	Northbound	22:41	ECS to depot

Table 13: Arrival and departure times at Edinburgh Waverley

Table 13 shows arrival and departure times at Edinburgh (departure times for southbound schedules, arrival times for northbound schedules). These times and platform availability will in most or all cases require trains to be formed from ECS moves from either depots or sidings (likely Glasgow Polmadie or Craightenny) and vice versa after incoming services. These moves were not considered in detail, but an assessment of potentially usable platforms is below.

Platform capacity:

For the northbound schedules, there is platform capacity at Edinburgh station, however consistent platform usage for all 5 schedules is not possible due to discrepancies in arrival times (for the last two arrivals of the day) and due to existing services from other operators. Accessing platforms 1 and 2 when approaching the station may create further conflicts due to the requirement to cross onto the primary up line (NL). Although platforms 3-6 could be used for terminating services, they would not be usable for ECS moves departing to the West.

For the southbound schedules, there is platform capacity at Edinburgh station. In this direction, platforms 8 and 9 should be avoided due to the requirement to cross the primary down line (SL) and create further potential conflicting moves.

For both, platform capacity could not be assessed fully and compliance with platform re-occupation values may not be achievable without unit diagrams. Platforms 1, 2, and 7-11 are the most suitable for Alliance schedules.

Overview of Performance

Weekday performance has been improving at Edinburgh for most operators from Dec 22 to Dec 23, in OT and T-3 (Figure 46). This has led to OT performance generally a little above the national average (64.6 %), although operators other than ScotRail are a little below national averages.

	Dec22			May23			Dec23		
	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %
Avanti West Coast	61.0 %	73.1 %	78.2 %	69.3 %	78.3 %	83.2 %	69.8 %	79.0 %	85.4 %
CrossCountry	60.8 %	74.3 %	80.7 %	63.3 %	72.4 %	77.3 %	69.5 %	79.8 %	83.2 %
LNER	65.4 %	76.7 %	82.2 %	60.6 %	73.2 %	79.0 %	65.3 %	76.9 %	82.3 %
Lumo	52.8 %	68.3 %	75.9 %	54.9 %	69.4 %	77.0 %	65.3 %	77.4 %	82.6 %
ScotRail	76.9 %	90.4 %	95.1 %	72.2 %	87.5 %	93.6 %	73.4 %	88.7 %	94.2 %
TransPennine	66.5 %	81.2 %	86.8 %	68.3 %	80.3 %	85.0 %	65.3 %	80.3 %	85.6 %

Figure 46: Performance at Edinburgh in successive timetables

Flows Likely to affect Alliance Paths: Southbound

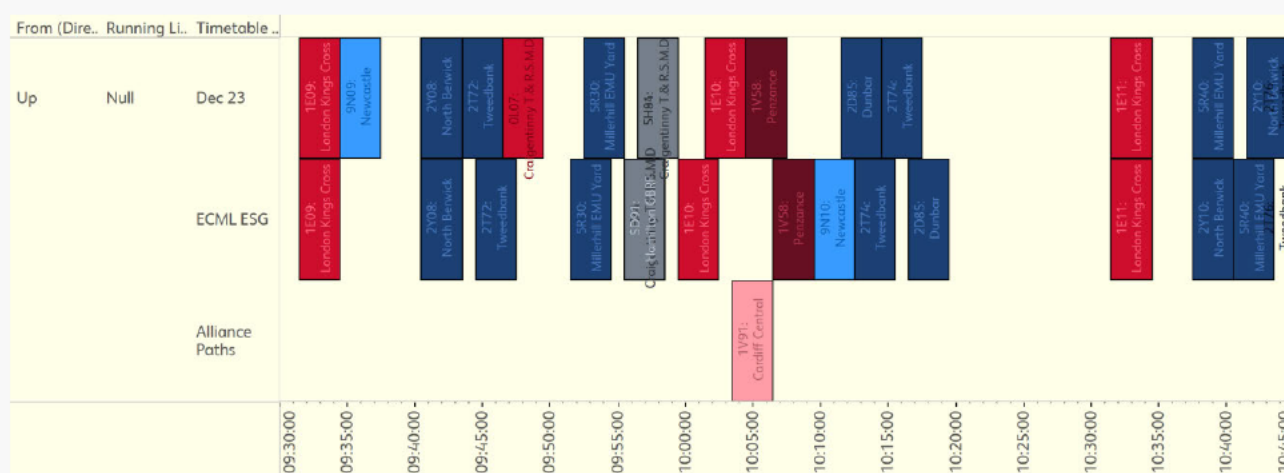


Figure 47: Sample Headway View at Abbeyhill Junction of location of 1V91 in flighting

Figure 47 shows a sample headway view of one of the proposed southbound Alliance schedules. Headways of 3 minutes are displayed, with Alliance shown in pink, CrossCountry in burgundy, LNER Railway (LNER) in red, ScotRail in dark blue, TransPennine Express in light blue and freight services in grey.

The structure of the Dec 23 timetable in this area is significantly different to that of the ECML ESG, and it is important to note that this analysis has used the ECML ESG development timetable as a base for the timings of this assessment.

For Dec 23, the structure of the timetable around the proposed Alliance paths are more varied than the northbound services. In Dec 23 the Alliance paths are close to 1E LNER departures to Kings Cross, and two of the four are close to Southbound CrossCountry services.

		On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Edinburgh to London Kings Cross	Edinburgh	90.9 %	95.9 %	97.1 %	1,530
	Abbeyhill Jn	92.4 %	96.3 %	97.2 %	1,529
	Craigentinny Jn	85.9 %	95.1 %	96.9 %	1,529
	Portobello Jn (Lothian)	90.5 %	96.0 %	97.1 %	1,529
	Monktonhall Jn	90.1 %	95.7 %	96.9 %	1,530
	Prestonpans	91.9 %	95.7 %	96.8 %	1,529
	Drem	82.4 %	93.7 %	96.3 %	1,530

Figure 48: LNER Edinburgh to Kings Cross services

		On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Aberdeen to London Kings Cross	Princes St Gardens	44.8 %	63.8 %	74.2 %	163
	Edinburgh	46.6 %	65.6 %	74.8 %	163
	Abbeyhill Jn	51.9 %	66.9 %	78.8 %	160
	Craigentinny Jn	38.1 %	62.5 %	72.5 %	160
	Portobello Jn (Lothian)	52.5 %	67.5 %	79.4 %	160
	Monktonhall Jn	49.7 %	65.8 %	76.4 %	161
	Prestonpans	52.5 %	66.9 %	78.1 %	160
	Drem	49.7 %	65.8 %	78.3 %	161

Figure 49: LNER Aberdeen to Kings Cross services

LNER Southbound services originating at Edinburgh perform well through the Edinburgh area (Figure 48). However, the Aberdeen starter which follows 1V67 in the current paths performs poorly (Figure 49). Any future work should ensure this service is behind any Alliance Edinburgh starter.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Edinburgh	82.8 %	90.8 %	94.4 %	412
Abbeyhill Jn	88.2 %	95.2 %	96.6 %	416
Prestonpans	79.8 %	94.9 %	95.9 %	392
Craigentinny Jn	80.8 %	94.0 %	95.9 %	416
Portobello Jn (Lothian)	86.5 %	94.7 %	96.6 %	416
Monktonhall Jn	71.2 %	93.0 %	95.4 %	416
Drem	61.3 %	88.9 %	94.7 %	416

Figure 50: CrossCountry services through Edinburgh

CrossCountry services generally originate well at Edinburgh but do suffer performance detriment at Monktonhall Junction and Drem, specifically the On Time metric (Figure 50). Time to 3 and Time to 5 remain relatively constant suggesting any performance detriment is within a minute and could be explored further in future work.

Flows Likely to affect Alliance Paths: Northbound



Figure 51: Sample Headway View at Craightinny Junction of location of 1S81 in flighting

Figure 51 shows a sample headway view of one of the proposed northbound Alliance schedules. Headways of 3 minutes are displayed, with Alliance shown in pink, CrossCountry in burgundy, LNER in red, ScotRail in dark blue, TransPennine Express in light blue and freight services in grey.

The structure of the Dec 23 timetable in this area is significantly different to that of the ECML ESG, and it is important to note that this analysis has used the ECML ESG development timetable as a base for the timings of this assessment.

In Dec 23 the Alliance paths are generally between 2D ScotRail services from Dunbar, and 2T services from Tweedbank. In the ESG timetable it is a 1S LNER service to King's Cross in front of the Alliance paths. Alliance paths are generally well spaced between other services at Craightinny Junction.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Dunbar	69.3 %	81.2 %	90.2 %	287
East Linton	27.3 %	71.9 %	83.8 %	278
Drem	58.2 %	78.0 %	86.1 %	287
Prestonpans	64.6 %	79.2 %	87.8 %	288
Wallyford	56.6 %	76.4 %	86.5 %	288
Monktonhall Jn	60.4 %	78.5 %	86.1 %	288
Musselburgh	56.6 %	76.4 %	85.8 %	288
Portobello Jn (Lothian)	54.9 %	76.4 %	85.8 %	288
Craightinny Jn	49.3 %	76.0 %	85.1 %	288
Edinburgh	56.9 %	77.1 %	83.7 %	288

Figure 52: 2D ScotRail services from Dunbar to Edinburgh

2D's perform poorly, with poor right time starts and little recovery though to Edinburgh (Figure 52). In Dec 23 the Alliance paths are generally between 2D ScotRail services from Dunbar, and 2T services from Tweedbank. In the ESG timetable it is a 1S LNER service to King's Cross in front of the Alliance paths. Alliance paths are generally well spaced between other services at Craightinny Junction.

	On Time WTT %	Time to 3 WTT %	Time to 5 WTT %	Recorded WTT Points
Dunbar	69.3 %	81.2 %	90.2 %	287
East Linton	27.3 %	71.9 %	83.8 %	278
Drem	58.2 %	78.0 %	86.1 %	287
Prestonpans	64.6 %	79.2 %	87.8 %	288
Wallyford	56.6 %	76.4 %	86.5 %	288
Monktonhall Jn	60.4 %	78.5 %	86.1 %	288
Musselburgh	56.6 %	76.4 %	85.8 %	288
Portobello Jn (Lothian)	54.9 %	76.4 %	85.8 %	288
Craigentinny Jn	49.3 %	76.0 %	85.1 %	288
Edinburgh	56.9 %	77.1 %	83.7 %	288

Figure 52

C.03 Path Analysis

Unresolved conflicts relating to each Alliance schedule were categorised by complexity, using the following rating shown in Table 14:

Conflict rating	Definition
Fundamental	A conflict which would require either Alliance Rail or another service to be significantly retimed into different time slot within the timetable structure.
Major	A conflict to which a resolution could be achieved without significant retiming to either the Alliance Rail or other service, but it may require consequential changes to other schedules.
Minor	A conflict that is non-compliant with the TPR value by 2 minutes or less and resolution could be achieved without impacting other schedules.

Table 14: Rating of conflict severity

Out of the 10 proposed Alliance paths, 4 would occupy former CrossCountry paths for parts of the route (which CrossCountry are not looking to re-instate):

- 1S81 between Doncaster and York
- 1S89 between Doncaster and York
- 1S91 between Doncaster and York
- 1V91 between Newcastle and Birmingham New Street

218 consequential changes would be required to resolve conflicts between the proposed Alliance paths and other schedules, which at this point haven't been consulted with the impacted operators. Some of the notable and repeat changes include:

- For all northbound Alliance paths (apart from 1S91), TransPennine Express's 9E Liverpool Lime Street-Newcastle services are proposed to be retimed 3 to 4 minutes later from York to run behind Alliance services and arrive late to Newcastle. The reason for this change is the differences in stopping pattern, as 9E stops in Darlington and Durham whilst the Alliance schedule would not be stopping at these locations.
- For two southbound Alliance paths, two LNER Edinburgh-London King's Cross services are proposed to be retimed earlier from Edinburgh:
 - 1E22 5 minutes earlier, for 1V41.
 - 1E10 2 minutes earlier, for 1V91.
- 2-3-minute timing changes to Great Western 2C and Transport for Wales 2N services at Cardiff Central are proposed to enable XX:07-XX:08 departures for 4 northbound Alliance paths.

C.03.01 1S87BB 05:30 Cardiff to Edinburgh

The schedule has 12 unresolved direct and 0 unresolved indirect conflicts left across all databases, listed in Table 15.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
1D52EV	CrossCountry	SX	ECML	Clash	Tamworth High Level	Fundamental
1K53KH	East Midlands Trains	SX	ECML	Junction margin	North Stafford Junction	Major
1R58FA	East Midlands Trains	SX	ECML	Headway	Clay Cross - Chesterfield	Major
6E56GB	Freightliner Heavy Haul	MO, MSX	ECML	Clash	Sheffield-Swinton	Fundamental
1B21AG	Northern	EWD	ECML	Platform clash	York	Major
6N86GC	GB Railfreight	SX	ECML	Clash	Benton North Junction	Fundamental
1U32GT	TransPennine Express	EWD	ECML	Junction margin	York	Minor
2U08GG	West Midlands	SX	June 24	Junction margin	Birmingham New Street	Minor
6M90FC	GB Railfreight	MSX	June 24	Clash	Longbridge	Fundamental
6M29PD	DB Cargo	TWTHO	June 24	Clash	Ashchurch	Fundamental
3L05DA	Great Western	SX	Wales	Junction Margin	Long Dyke Junction	Major
6M81EA	DB Cargo	SX	Wales	Headway	Newport	Minor

Table 15: List of unresolved conflicts for 1S87

Significant remaining conflicts:

- Clash between 1S87 and 1D52 between Wichnor Junction and Burton-on-Trent (Figure 53). 1D74 departs Birmingham New Street at 07:19 in both the June 24 and ECML timetables. Retiming of 1D74 was explored however no solution was identified without causing further consequential conflicts, mainly with freight schedules in the area.

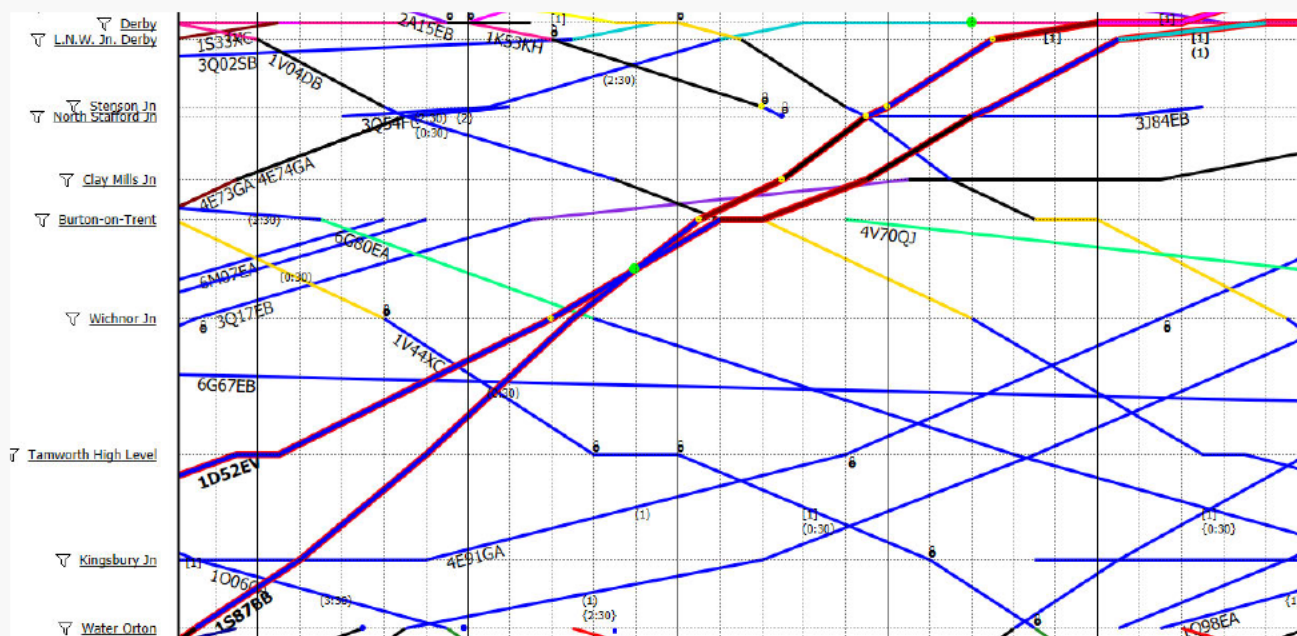


Figure 53: 1S87 clashing with 1D52 at Wichnor Junction

- Clash between 1S87 and 6E56 at Wincobank Junction (Figure 54). Retiming the freight schedule was considered however sufficient headway capacity wasn't identified for this train to run between Sheffield-Swinton due to the trailing weight (2200 tonne) and speed of the freight schedule.

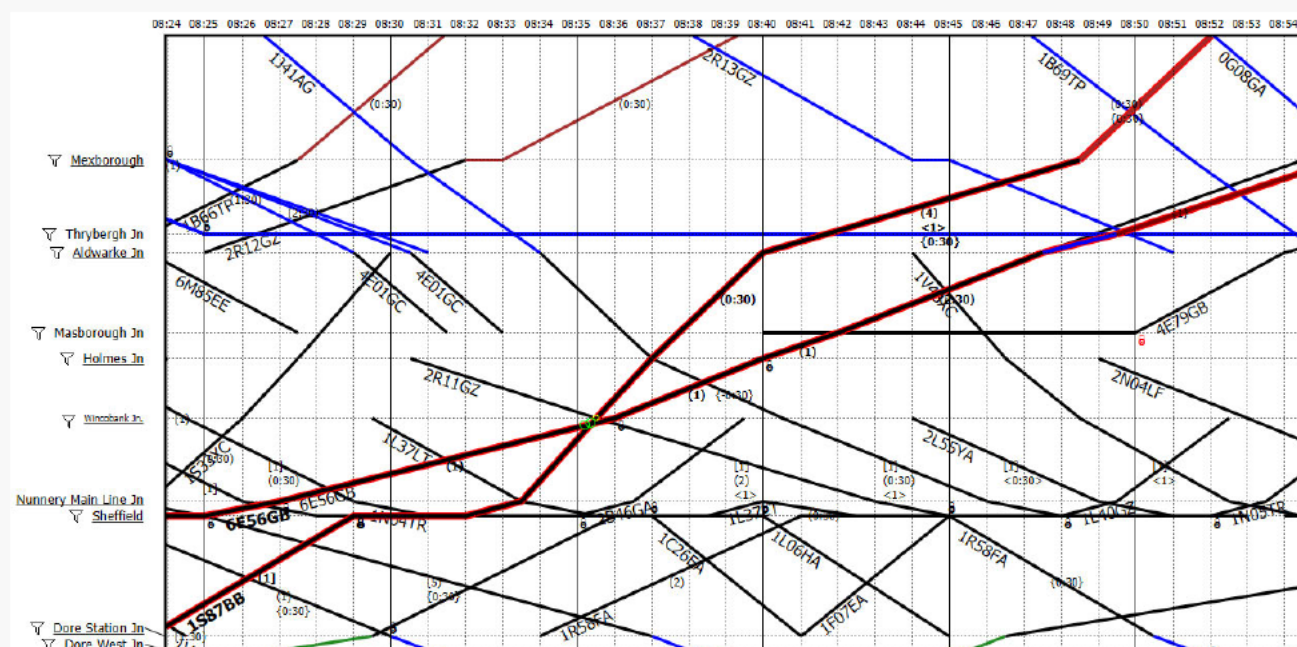


Figure 54: 1S87 clashing with 6E56 at Wincobank Junction

- Clash between 1S87 and 6N86 between Heaton North Junction-Benton North Junction (Figure 55). Retiming 6N86 to depart Heaton North Goods Loop later was explored, however this caused consequential conflicts with passenger services and freight services on the single line at Northumberland Park.

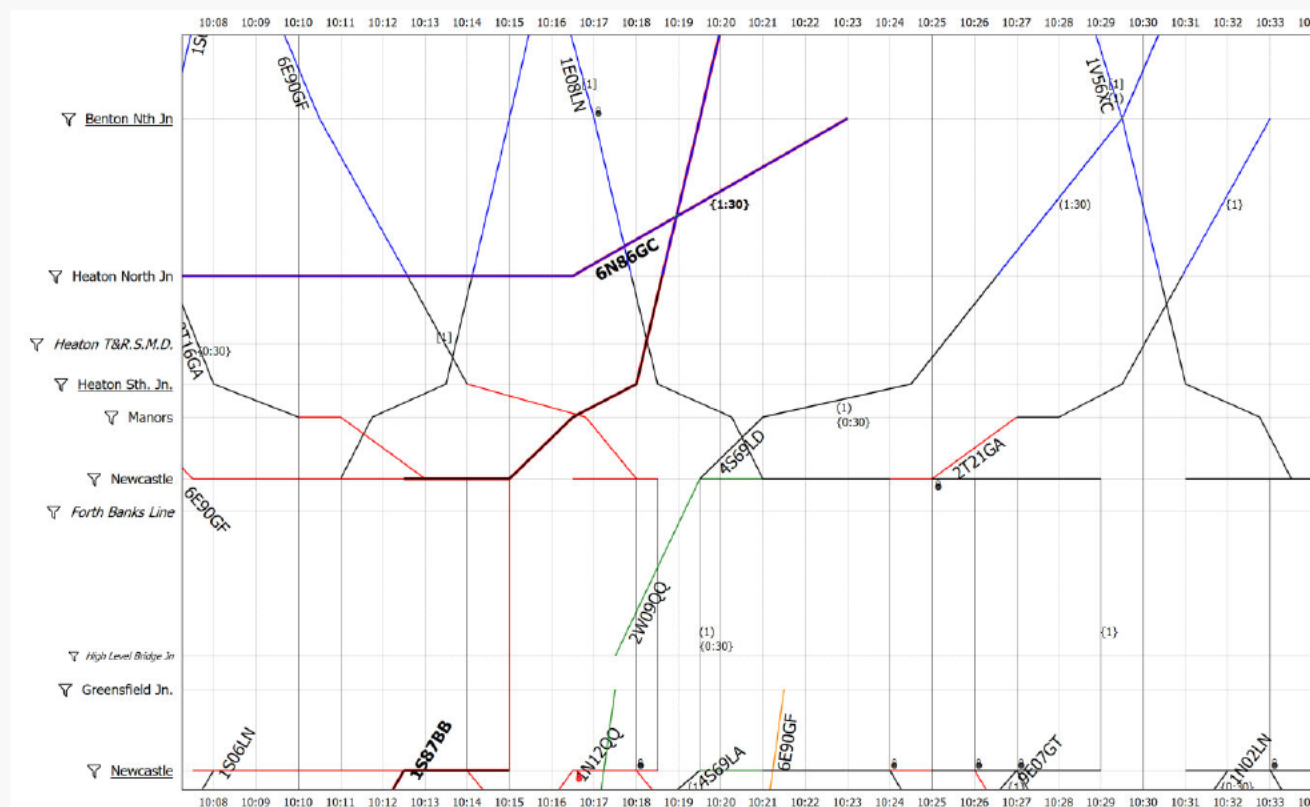


Figure 55: 1S87 clashing with 6N86 between Heaton North Junction-Benton North Junction

- A TPR non-compliance was identified for this train: dwell at Gloucester is 1.5 minutes which is below the minimum of 2 minutes for this type of rolling stock.

17 other schedules were changed to resolve conflicts with 1S87.

Significant changes within the ECML ESG database:

- 4S69LA/LD: timings for these services changed beyond the ECML ESG boundary by running 7 minutes later from Millerhill, and couldn't get back to booked by Elderslie in Scotland. As the change could not be assessed beyond the ESG scope, there is a risk that this proposed change will not be viable (this is also relevant for 1S81).
- 6E79: reduced stop at Burton-on-Trent from 63 minutes to 6 to avoid headway conflict with 1S87 between Derby and Chesterfield. Stop added at Broadholme Loop instead (42.5 minutes) and arrives Masborough 13.5 minutes earlier.
- 9E07 TransPennine Express schedule to depart York 3 minutes later and arrives 3 minutes later to Newcastle.

No significant changes in the June 24 and Wales ESG databases.



C.03.02 1S81BB 07:08 Cardiff to Edinburgh

The schedule has 7 direct and 4 indirect unresolved conflicts left across the three databases, listed in Table 16.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
1S10LN	LNER	SX	ECML	Headway	Doncaster	Minor
4E84GA	GB Railfreight	SX	ECML	Headway	Swinton	Minor
6M31EG	GB Railfreight	MTTHO	ECML	Headway	Kingsbury Junction	Minor
2M70FB	TransPennine Express	EWD	ECML	Junction margin	York	Major (indirect)
1E17LN	LNER	SX	ECML	Junction Margin	Monktonhall Junction	Minor (indirect)
4S79LA	GB Railfreight	SX	ECML	Junction margin	Millerhill	Minor (indirect)
2016GG	West Midlands Trains	SX	June 24	Junction margin	Birmingham New Street	Major
2G50JS	Transport for Wales	SX	Wales	Headway	Gloucester	Minor
1L66DA	Great Western	SX	Wales	Headway	Gloucester	Minor
6M55QJ	Strategic Capacity	MWO	Wales	Junction Margin	Severn Tunnel Junction	Major
6M21EG	GB Railfreight	TO	Wales	Headway	Gloucester Yard Junction	Minor (indirect)

Table 16: List of unresolved conflicts for 1S81

28 other schedules were changed to resolve conflicts with 1S81. See list of changed schedules and detail of change in G.03.

Significant changes within the ECML ESG database:

- 4S69LA/LD: timings changed beyond the ECML ESG scope, by running 7 minutes later from Millerhill, and couldn't get back to booked by Elderslie in Scotland. As the change could not be assessed beyond the ESG scope, there is a risk that this proposed change will not be viable.
- 9E09 TransPennine Express schedule to depart York 3 minutes later and arrives 3 minutes later to Newcastle (recurring).

Significant changes within the Wales ESG database:

- Changes to schedules 2N07, 2G50, 2C08 departing Cardiff 1-3 minutes earlier to accommodate the 07:08 departure of 1S81.

No significant changes in the June 24 database.

C.03.03 1S85CC 09:07 Cardiff to Edinburgh

The main concern with this path is the proposal to take the additional CrossCountry Hydra path (1E32 09:45 Reading to York) between Derby and York to avoid conflicts on the ECML. 1S85 would depart Derby at 12:00, whilst 1E32 would depart at 12:15. The 12:15 slot is based on the historical path of the pre-pandemic CrossCountry train.

The change to 1E32 has been implemented in the ECML database, however the schedule is not conflict free if departing Derby at 12:15, as the retime caused 6 consequential freight conflicts (shown in Table 17). The retime also extends the journey time for 1E32 by 17 minutes, but the schedule in this later arrival is compliant for turnaround times at York.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
4E34GB	GB Railfreight	SX	ECML	Headway	Burton-on-Trent	Major
6E10GC	DB Cargo	WTHO	ECML	Headway	Kingsbury Junction	Major
6H11PD	DB Cargo	TFO	ECML	Junction Margin	Dore South Junction	Major
0E96GA	Freightliner Heavy Haul	SX	ECML	Headway	Dore Station Junction	Major
6N71GA 6X71GA	GB Railfreight	SX	ECML	Clash	Shaftholme Junction	Fundamental
4O95CA	Freightliner Intermodal	SX	ECML	Junction Margin	Swinton	Fundamental

Table 17: Consequential conflicts caused by the retime to 1E32.

This schedule has 7 direct and 7 indirect unresolved conflicts left across the three databases, listed in Table 18.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
4M86EB	Freightliner Intermodal	MSX, MO	ECML	Clash	Wichnor Junction	Fundamental
4E34GB	GB Railfreight	SX	ECML	Clash	Kingsbury Junction	Fundamental
2M74FB	TransPennine Express	EWD	ECML	Junction margin	York	Minor (indirect)
6M96EC	DB Cargo	MO, TWTHO, FO	June 24	Clash	Ashchurch	Fundamental
1L70DA	Great Western	SX	Wales	Clash	Gloucester	Fundamental
2U24GG	West Midlands Trains	SX	June 24	Headway	Five Ways	Minor
1L38HX	CrossCountry	SX	June 24	Headway	Landor Street	Minor

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
2G54JS	Transport for Wales	SX	Wales	Headway	Severn Tunnel Junction	Minor

Table 18: List of unresolved conflicts for 1S85

Significant remaining conflicts:

- York platforming is not fully resolved for this schedule: there is a recurring platform clash with Northern’s Blackpool services using platform 11. Moving these services to platform 7 was explored, however this move caused consequential platform-end conflicts at York.
- Clash between 1S85 and 4M86 (a Freightliner Intermodal schedule) between Wichnor Junction and Burton-on-Trent. A retime to 4M86 to depart Duddeston Junction was considered, however not deemed viable due to interaction with other services in the area and the required time for the run-round at Duddeston. Holding the train at Kingsbury Junction (routed via Whitacre Junction) was also considered, however there was insufficient headway capacity due to 1E32 following 1S85 from Birmingham, shown on Figure 56.

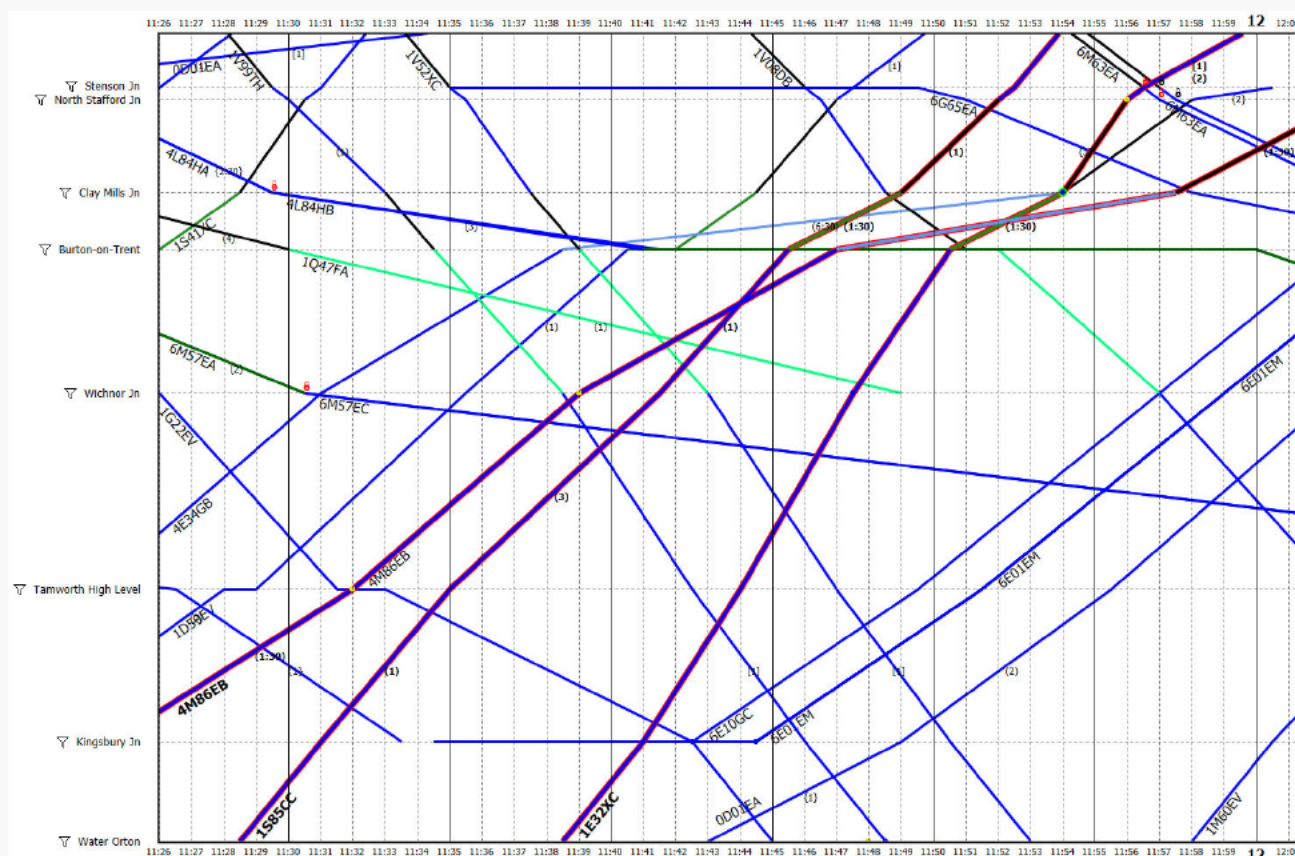


Figure 56: 1S85 clashing with 4M86 between Wichnor Junction and Burton-on-Trent

- Clash between 1S85 and 6M96 (a DB Cargo schedule) at Ashchurch, shown in Figure 57. This freight service requires use of a banking locomotive to climb the Lickey Incline, which means that time for the stop related to this cannot be reduced at Bromsgrove and Longbridge Signal 23.

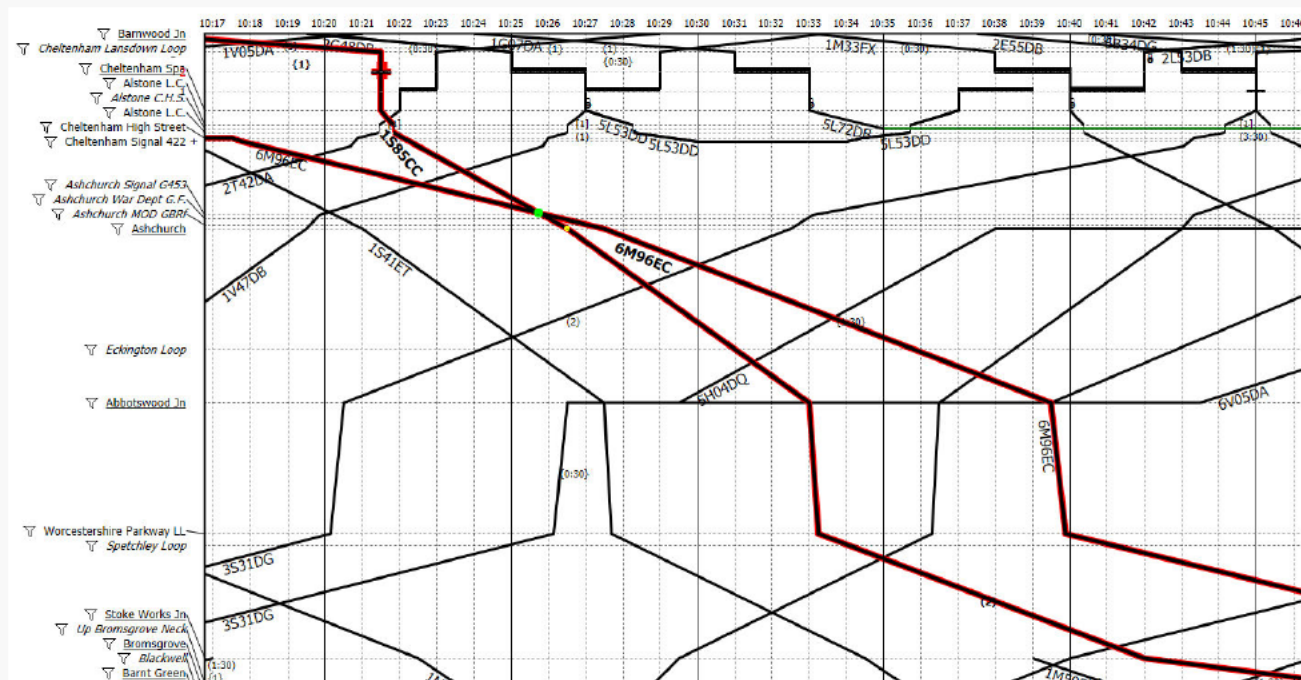


Figure 57: 1S85 clashing with 6M96 at Ashchurch

16 other schedules were changed to resolve conflicts with 1S85. See list of changed schedules and detail of change in G.03.

Significant changes within the ECML ESG database:

- Retime of 1E32 CrossCountry path, arriving to York 17 minutes later.

No significant changes in the June 24 and Wales ESG databases.

C.03.04 1S89BB 13:07 Cardiff to Edinburgh

This schedule has 5 direct conflicts and 1 indirect conflict, shown in Table 19.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
1A67CH	Grand Central	SX	ECML	Junction Margin	Shaftholme Junction	Major
0D01GB	DB Cargo	THO	ECML	Headway	Hexthorpe Junction	Minor
6H45FA 6H45PD	Freightliner Heavy Haul	MO, TWO	ECML	Junction Margin	Dore South Junction	Fundamental
6V68DC	Freightliner Heavy Haul	MSX	Wales	Junction Margin	Severn Tunnel Junction	Major
2013JS	Transport for Wales	SX	Wales	Headway	Gaer Junction	Minor (indirect)
3S32DH	Colas	TTHO	Wales	Platform re-occupation	Gloucester	Major

Table 19: List of unresolved conflicts for 1S89



Significant remaining conflicts:

- Diverging headway (expressed in the TPRs as a junction margin) conflict between 1S89 and 6H45 at Dore South Junction, as shown on Figure 58: an earlier time slot for 6H45 to pass Dore South Junction at 15:48 was tried to resolve this clash, with the aim of extending A-stop at Earles sidings and pick up booked path departing there. However, this solution didn't work fully as 6H45 did not achieve headway with 1R72 between Dore West Junction-Earles Sidings.

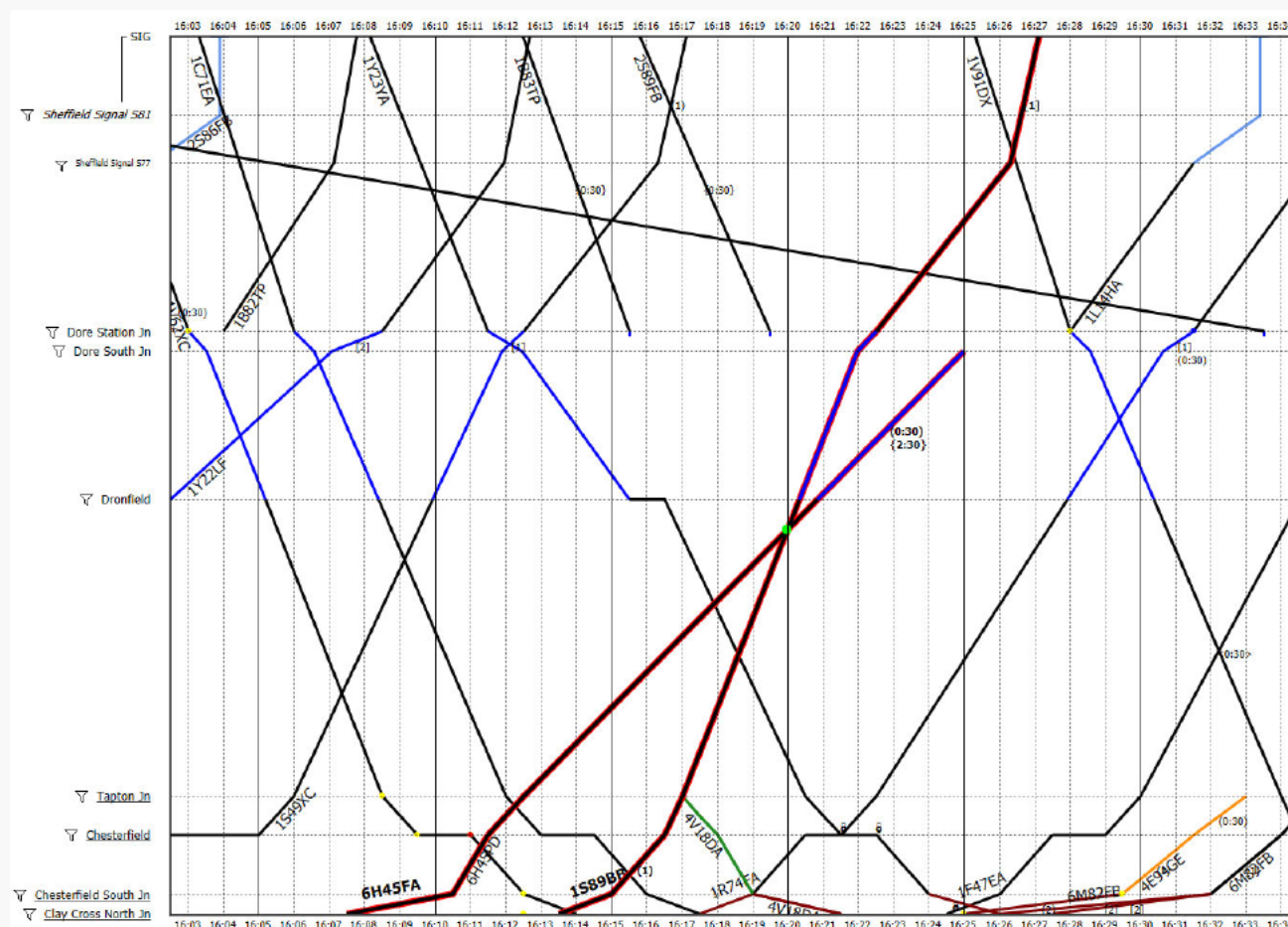


Figure 58: 1S89 clashing with 6H45 at Dore South Junction

16 other schedules were changed to resolve conflicts with 1S89. See list of changed schedules and detail of change in G.03.

Significant changes within the ECML ESG database:

- 9E15 TransPennine Express schedule to depart York 3 minutes later and arrives 4 minutes later to Newcastle (recurring).

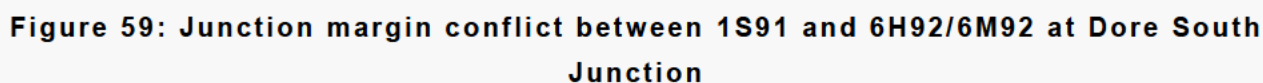
No significant changes in the June 24 and Wales ESG databases.

C.03.05 1S91BB 16:06 Cardiff to Edinburgh

This schedule has 3 direct and 0 indirect conflicts left across the ECML ESG and June 24 databases, listed in Table 20.

Table 20: List of unresolved conflicts for 1S91

- Diverging headway (expressed in the TPRs as a junction margin) conflict between 1S91 and 6H92/6M92 in the Dore area (similar to 1S89 and 6H45), shown in Figure 59. Removal of pathing time from 6H92/6M92 approaching Dore South Junction to achieve the 4-minute headway with 1S91 with a stop at Dore West Junction for the freight schedule to pick up booked path was explored, however the length of this train is 360 meters which would overhang Dore South Junction (maximum standage on the West curve is 325m), blocking the Main Line to Sheffield.



- Clash between 1S91 and 1D74 at Burton-on-Trent. Due to differences in departure time of 1D74 from Birmingham New Street in the June 24 (18:09) and ECML (18:15) databases, retiming of 1D74 was explored however no solution was identified without causing further consequential conflicts, mainly with 6H82 (shown on Figure 60), originating from the mismatch between the two timetables.

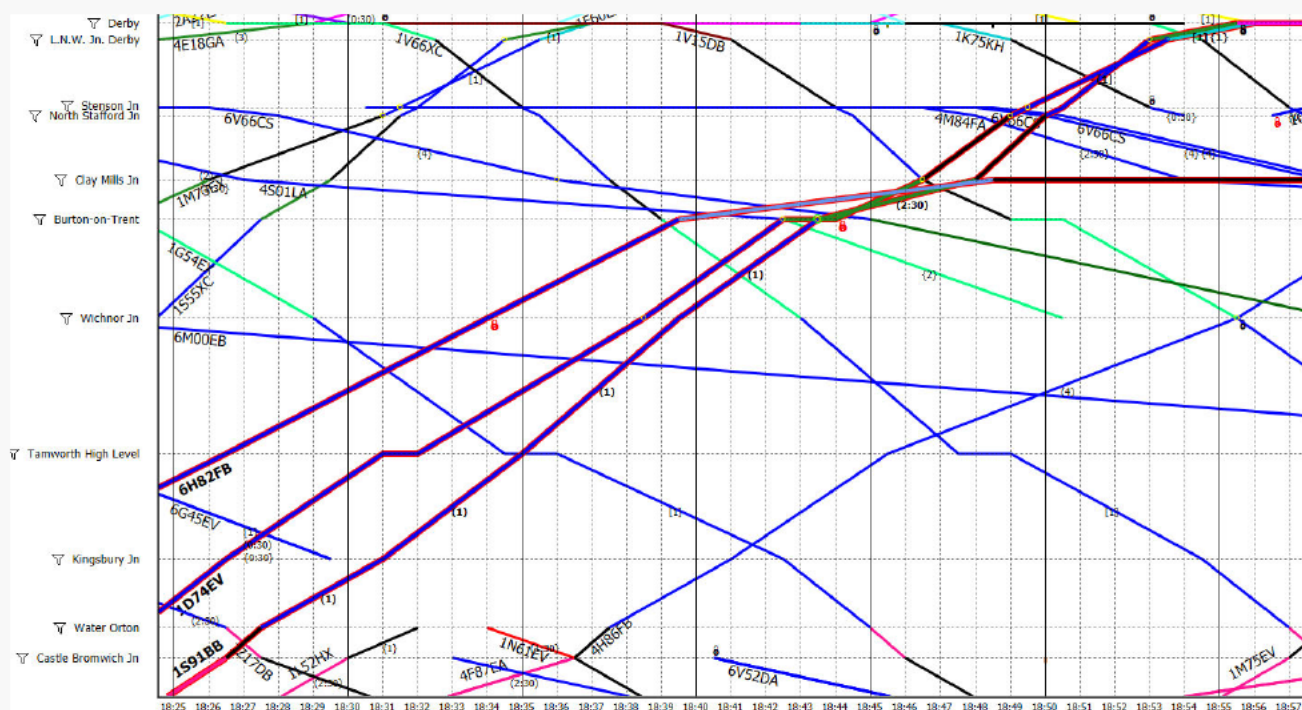


Figure 60: 1S91 clashing with 1D74 at Burton-on-Trent

32 other schedules were changed to resolve conflicts with 1S91. See list of changed schedules and detail of change in G.03.

Significant changes within the ECML ESG database:

- 1Q29 and 1Q27 Test Trains, [WO]: Derby reversing move affected, 10 minutes later and reduced to 11.5 minutes, for headway between North Stafford Junction and Derby.
- 5D90 ScotRail ECS retimed to depart Millerhill EMU Yard 13 minutes earlier for headway.
- 9E18 TransPennine Express schedule to depart York 3 minutes later and arrives 4mins later to Newcastle (recurring).
- 9S21 TransPennine Express schedule to depart Newcastle 2 minutes later for headway, arrives Edinburgh 2.5 minutes later.
- 4E18 Freightliner Heavy Haul schedule arrives C-stop at Barrow Hill Up sidings 10 minutes later, for headway between Derby-Chesterfield.

A change was made to 1Q62 Test Train from Gascoigne Wood to Scarborough to avoid a platform clash in York with 1S91 this was confirmed as outdated in the ECML ESG database. June 24 times were used, which was confirmed as the preferred timings and submitted for December 24 PDNS, with 1Q62 departing Gascoigne Wood at 16:26 instead of 19:07.

Significant change within the June 24 database:

- 6M67 DRS schedule departs Eckington Loop 3 minutes later for headway, arrives Crew stop at Worcester T.C. 3 minutes later.

Significant changes within the Wales ESG database:

- Changes to schedules departing Cardiff 1-3 minutes earlier to accommodate the 16:06 departure of 1S91: 1L26, 2C83, 2G68 and 2N25.
- Changes at Gloucester and Cheltenham impacting ECS moves: 5L86 and 5V68. The reverse moves were reduced to account for later arrival of passenger service but are still TPR-compliant.

C.03.06 1V99TH 07:27 Edinburgh to Cardiff

This schedule has 11 direct and 1 indirect unresolved conflicts left across the ECML ESG and June 24 databases, listed in Table 21.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
4G23EA	Freightliner Intermodal	SX	ECML	Junction Margin	Water Orton	Fundamental
6E01EM 6E10EM 6E10GP	DB Cargo	FO WO THO	ECML	Junction Margin	Kingsbury Junction	Major
1A18LN	LNER	SX	ECML	Headway	Doncaster Marshgate Junction	Minor
1A70GC	Grand Central	SX	ECML	Headway	Doncaster Marshgate Junction	Major
6E90GF	Colas	MSX	ECML	Headway	Crag Mill Loop	Major
6E54GP	Colas	FO	ECML	Junction Margin	Morpeth	Major
1Q19GS	Test Train	MO	ECML	Junction Margin	Durham Up Loop	Major
6H45CC	Freightliner Heavy Haul	MO, MSX	ECML	Junction Margin	Water Orton	Fundamental
6V06PD	DC Rail	TO	ECML	Junction Margin	Water Orton	Fundamental
1V52XC	CrossCountry	SX	ECML	Headway	Morpeth	Major (indirect)
1V52DB	CrossCountry	SX	June 24	Headway	Longbridge to Barnwood Junction	Major
2026GG	West Midlands	SX	June 24	Headway	Barnt Green	Major

Table 21: List of unresolved conflicts for 1V99

Significant remaining conflicts:

- Headway conflict between Doncaster Marsh Gate Junction and Doncaster: 1A18 Leeds to King's Cross service operated by LNER joins at Marshgate Junction. This schedule has been retimed by 1.5 minutes to increase headway with 1V99, however is still 0.5 minute non-compliant into the station and is only 2 minutes apart (needs 4) when entering platform 3A, after the departure of 1V99. This is combined with a headway conflict between 1V99 and 1A70, with 1A70 being the preceding train before 1V99 arrives at Marshgate Junction. These conflicts could not be resolved as any retime (particularly to 1A18) would cause further conflicts along its journey to King's Cross. Interaction between the three schedules shown in Figure 61:

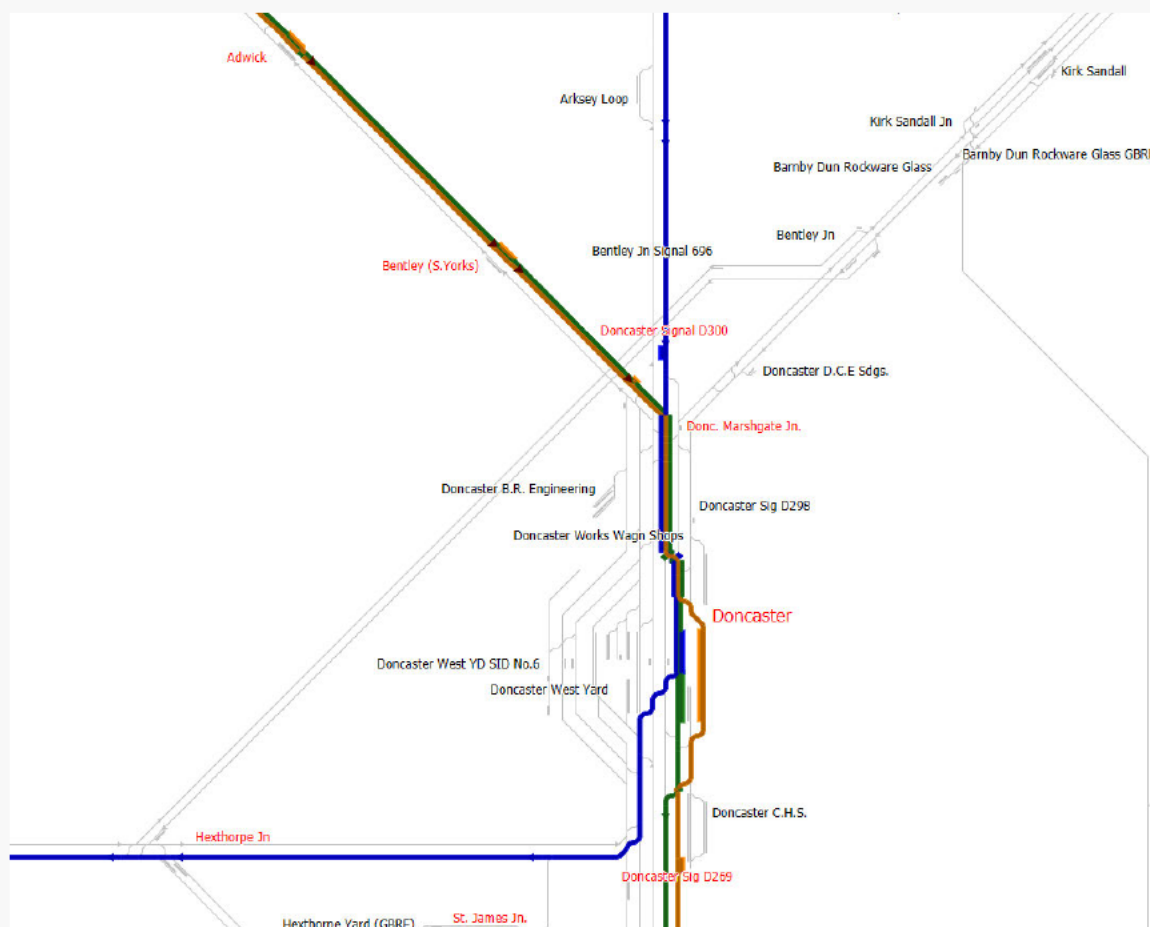


Figure 61: 1V99 conflicting moves with 1A70 and 1A18 at Doncaster Marshgate Junction

- 4G23 and 1V99 are only 0.5 minutes apart at Water Orton with 4G23 crossing from Sutton Park to Coleshill Parkway (blue) and 1V99 crossing from Kingsbury Junction (orange) in Figure 62. This conflict could not be resolved due to other service at Water Orton at this time and the differences between the June 24 and ECML ESG databases.

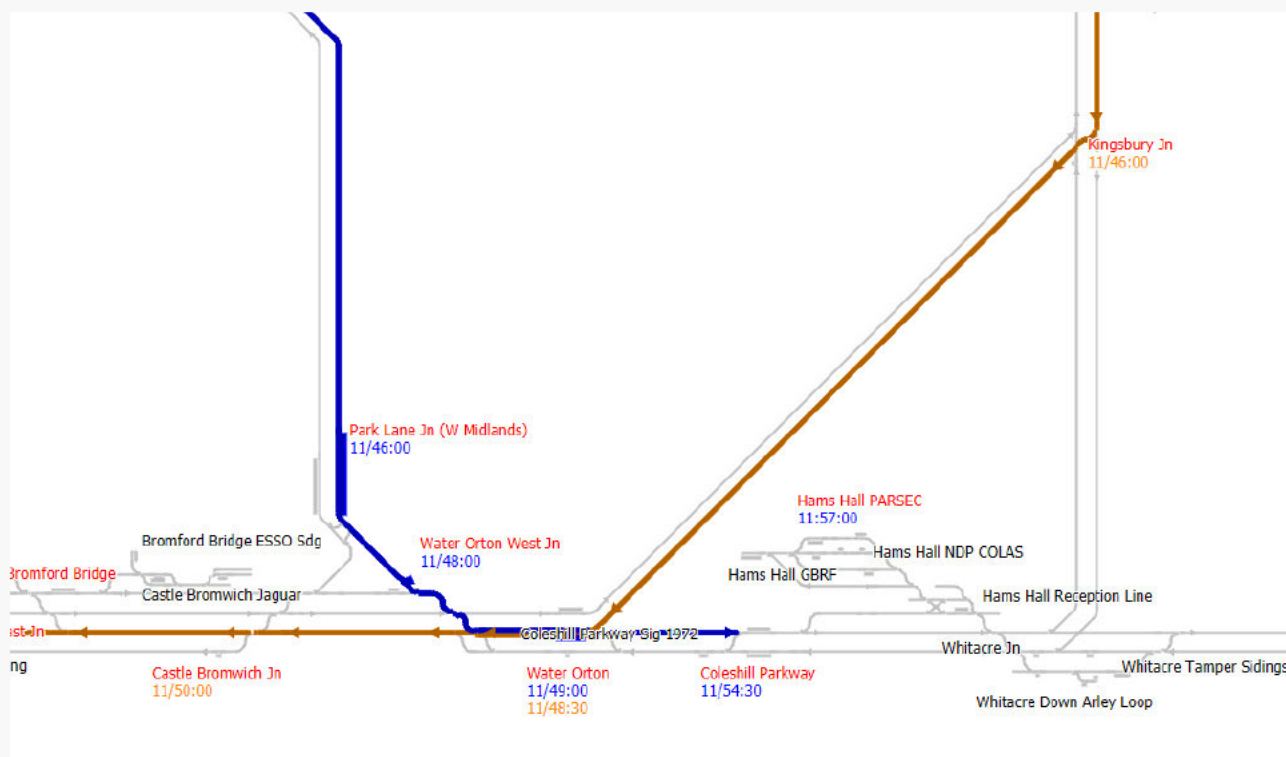


Figure 62: 1V99 clashing with 4G23 at Water Orton

- Conflict with 1V52 in June 24 database, a recurring conflict for northbound Alliance schedules using this slot.

31 other schedules were changed to resolve conflicts with 1V99. See list of changed schedules and detail of change in G.03.

Significant changes in the ECML ESG:

- Morpeth-Newcastle services operated by Northern: 2A01, 5A03 and 2A03 were retimed been retimed between Newcastle and Morpeth. 2A01 departs Newcastle 2 minutes later, 5A03 reversal reduced at Morpeth to enable 3 minutes earlier departure of 2A03, for headway with 1V99.
- 2Y38 Edinburgh to North Berwick service: retimed to depart 7 minutes earlier for headway with 1V99 (departs after 2Y38 however due to difference in stopping pattern, caught up with 2Y38 eventually). Turnaround reduced between 2Y38 and the ECS 5D82 it's being formed from, to 8 minutes. This value is within the minimum required for ScotRail at Edinburgh station.
- 2C10 and 2C17 Leeds to York services (via Harrogate) operated by Northern: to enable capacity on the Fast Lines at Skelton Junction and York, 2C17 departs 2.5 minutes earlier, and is back to booked by Poppleton, whilst 2C10 arrives Skelton Junction and York (respectively) 3 minutes later.
- 1P66 Saltburn to Manchester Airport service operated by TransPennine Express: moved to the Slow Lines between Thirsk-Skelton Junction to enable capacity for 1V99 on the Fast Lines. As the SRTs are longer on the Slow Line, York dwell was reduced by 4 minutes (from 6 to 2) and 1P66 departs York as booked. 2 minutes is the minimum dwell for TransPennine Express at York (with operator agreement.)

There were no changes made to other schedules in the June 24 and Wales ESG databases.

C.03.07 1V91CC 10:02 Edinburgh to Cardiff

This schedule has 12 direct and 3 indirect unresolved conflicts left across all databases, listed in Table 22.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
1H03PF	Hull Trains	SX	ECML	Junction Margin	Temple Hirst Junction	Fundamental
6M82FB	DB Cargo	TTHFO, MWO	ECML	Junction Margin	Stenson Junction	Minor
6001CA 6X01CA 6001CB	GB Railfreight	SX	ECML	Clash	Branston Junction	Fundamental
2T25GA	Northern	EWD	ECML	Junction margin	Manors	Major
4L68HA	GB Railfreight	SX	ECML	Junction Margin	Kingsbury junction	Minor
4M94EB	Freightliner Intermodal	MO, MSX	ECML	Junction Margin	Water Orton-Landor Street	Minor
1U44GA	TransPennine Express	EWD	ECML	Junction Margin	Colton Junction	Minor (indirect)
1A26LN	LNER	SX	ECML	Headway	Shaftholme Junction	Minor (indirect)
6D61PY	DB Cargo	MO	ECML	Headway	Doncaster Down Decoy	Major (indirect)
4V12DB	GB Railfreight	SX	June 24	Clash	Barnt Green	Fundamental
1M45FX	CrossCountry	SX	June 24	Headway	Slade Lane Junction	Minor
2T47DA	Great Western	SX	Wales	Clash	Gloucester	Fundamental
6B58DA	GB Railfreight	SX	Wales	Clash	Newport	Fundamental
1B19DA	Great Western	SX	Wales	Headway	Newport	Major
1V44DR	Transport for Wales	SX	Wales	Junction Margin	Long Dyke Junction	Major

Table 22: List of unresolved conflicts for 1V91

This service runs through an unused CrossCountry path from Newcastle to Doncaster (which CrossCountry are not looking to reinstate).

Significant remaining conflicts:

- Conflict with 1H03PF at Temple Hirst Junction as 1H03 turns towards Selby while 1V91 is passing on the Up Main towards Doncaster, shown in Figure 63. The conflict is not resolved as the required junction margin (3.5 minutes) could not be achieved between 1H03 and other services travelling on the Up and Down Main during this time period.

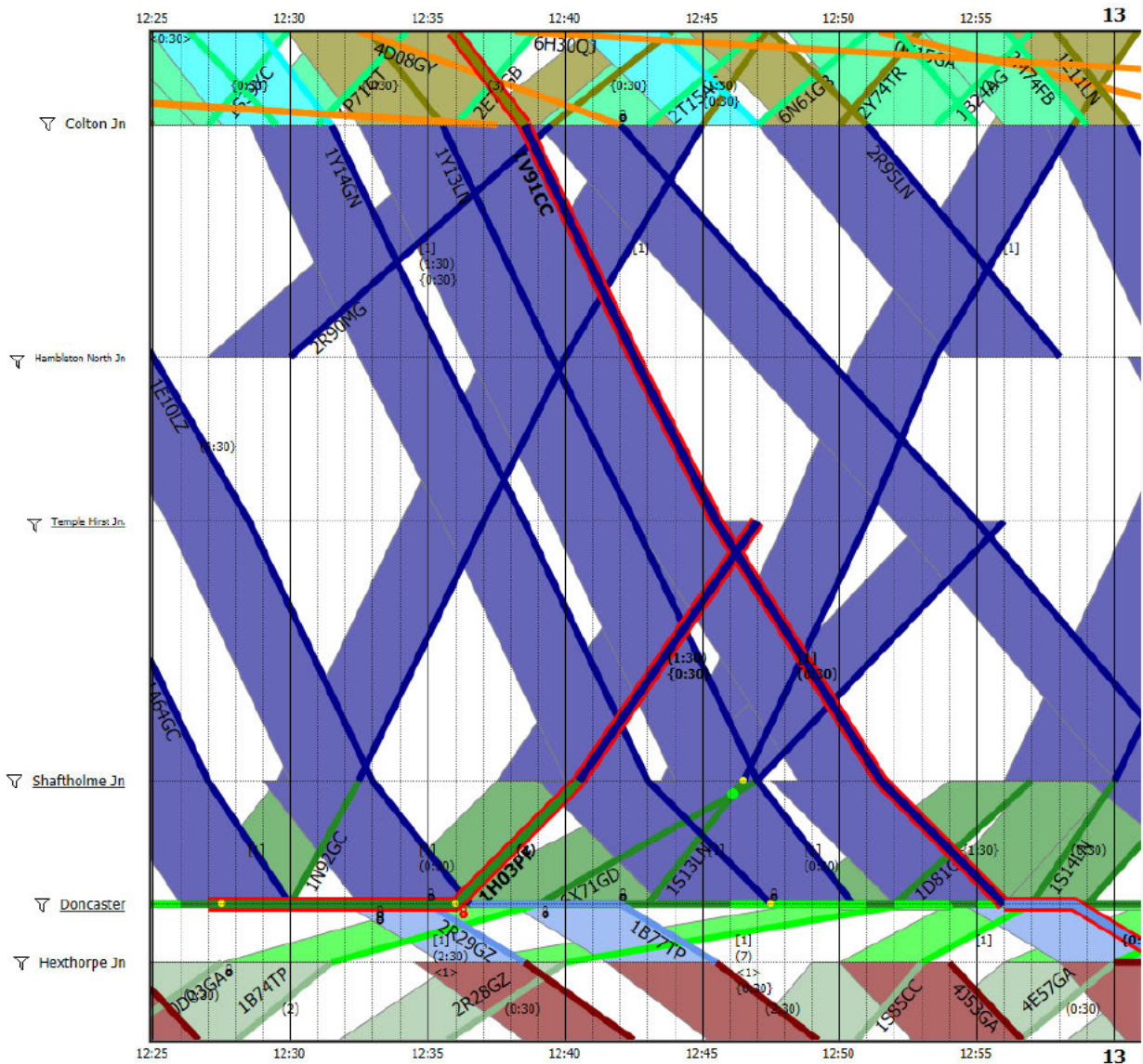


Figure 63: Junction margin conflict between 1H03 and 1V91 at Temple Hirst Junction.

- Clash with 6001/6X01 at Branston Junction could not be resolved mainly due to the differences in the June 24 and ECML ESG databases.
- Conflict with 6B58 in the Newport area when 1V91 changes from the Main Lines to the Relief Lines at Maindee West Junction to use platform 1 at Newport, which is to resolve a headway conflict with 1B19 on platform 3. However, this move caused a clash with 6B58 on the Relief Lines, shown on Figure 64:

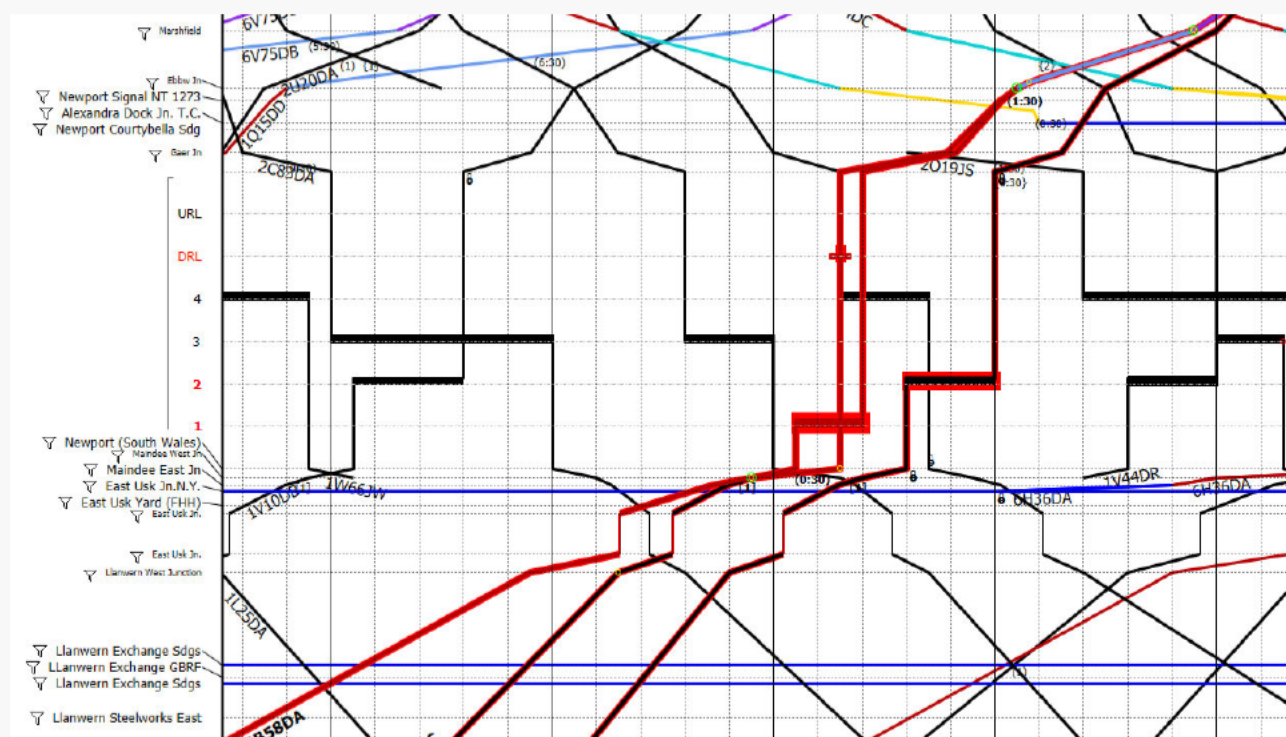


Figure 64: Clash between 1V91 and 6B58 at Newport

14 other schedules were changed to resolve conflicts with 1V91, none of these were considered significant. See list of changed schedules and detail of change in G.03.

C.03.08 1V93BB 13:27 Edinburgh to Cardiff

This schedule has 13 direct and 1 indirect unresolved conflicts left across all databases, listed in Table 23.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
6D24QJ	Strategic Capacity	SX	ECML	Clash	Ferryhill South Junction-Darlington	Fundamental
6A01EA	DC Rail	FSX	ECML	Clash	Tamworth High Level	Fundamental
1N10LN 1Y19LN	LNER	SX	ECML	Platform clash	Newcastle	Major
1V64XC	CrossCountry	SX	ECML	Junction margin	York	Major (indirect)
1V64DB	CrossCountry	SX	June 24	Headway	Birmingham-Barnwood	Fundamental
3J11EB	Seasonal	SX	June 24	Headway	Kings Norton	Major
2050GG	West Midlands Trains	SX	June 24	Headway	Longbridge	Fundamental
6V30QJ	Strategic Capacity	SX	Wales	Clash	Lydney	Fundamental

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
1B28DA	Great Western	SX	Wales	Platform re-occupation	Newport	Major
6V71DA	DB Cargo	MO	Wales	Headway	Barnwood Junction	Major
1B82ES	Grand Union	SX	Wales	Platform re-occupation	Newport	Major
2N33JS	Transport for Wales	SX	Wales	Junction Margin	Long Dyke Junction	Major
1L34DB	Great Western	SX	Wales	Platform re-occupation	Cardiff	Major
6M53GA	DB Cargo	TO, WO, THO	June 24	Junction Margin	Barnwood Junction	Major

Table 23: List of unresolved conflicts for 1V93

Significant remaining conflicts:

- Clash between 1V93 and 6A01 at Tamworth High Level. 6A01 could not be consistently moved in the ECML ESG and June 24 databases due to different timings of the schedule and others around it between the two timetables.
- Conflict between 2050, 1V93 and 1V64 between Birmingham New Street and Gloucester Junction. headway could not be achieved between New Street and Bromsgrove between the three services. 2050 terminates in Bromsgrove and as such, there is no leeway to retime this service. The headway conflict continues to Gloucester. Retiming the CrossCountry was explored however when entering the Wales ESG, a retime to this schedule causes consequential conflicts around Bristol.
- There are conflicts in the Newport area. 1V93 moves from the Main Lines to the Relief Lines at Gaer Junction to use platform 2 at Newport, however on platform 2 the platform re-occupation is only 2 minutes with 1B28 (preceding) and 1B29 (following). Neither of these services can be moved to another platform due other services using platform 3. However, routing 1V93 to the Relief Lines at Maindee West Junction to use platform 1 may reduce conflicts in the area.
- Conflict on approach to Cardiff. 1V93 is currently using platform 2, approaching the station on line B. This conflict with 2N33 departing on the B line from 1. Platforms 3 and 4 are used at this time and crossing to these at the booked time would cause a conflict with 6E09 passing through the station on the Up Relief Line. 11 other schedules were changed to resolve conflicts with 1V91. See list of changed schedules and detail of change in G.03 of the appendix.

Significant changes in the ECML ESG:

- 2A15 Morpeth to Newcastle service was retimed to depart Morpeth 2 minutes earlier for headway with 1V93, including associated ECS 5A15.
- 1P78 Saltburn to Manchester Airport service operated by TransPennine Express was moved to the Slow Lines between Thirsk-Skelton Junction to enable capacity for 1V99 on the Fast Lines. As the SRTs are longer on the Slow Line, York dwell was reduced by 4 minutes (from 6 to 2) and 1P78 departs York as booked. 2 minutes is the minimum dwell for TransPennine Express at York (with operator agreement.)

- 2C34 Leeds to York service (via Harrogate) operated by Northern: to enable capacity on the Fast Lines at Skelton Junction and York, the dwell at Skelton Junction was extended by 2.5m and 2C34 was routed on the Down Line into York to be parallel with 1V93. Arrives 3 minutes later.
- 1J65 Newcastle to Carlisle service operated by Northern departs Newcastle platform 9 4 minutes earlier for headway with 1V93 and is back to booked by Metro Centre.

There were no changes made to other schedules in the June 24 and Wales ESG databases.

C.03.09 1V41DD 16:00 Edinburgh to Cardiff

This schedule has 11 direct conflicts and 2 indirect unresolved conflicts left across all databases, listed in Table 24.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
4E04GA	GB Railfreight	SX	ECML	Headway	Northallerton	Fundamental
4L79HA 4L78HA	Freightliner	FO	ECML	Clash	Temple Hirst Junction	Fundamental
6M61FB	GB Railfreight	MO	ECML	Junction Margin	Mexborough	Major
1F60EA	East Midlands Railway	SX	ECML	Headway	Nunnery Main Line Junction	Minor
6V81DB	GB Railfreight	TTHO, MWO, FO	ECML	Headway	Sunnyhill	Fundamental
1Q23GB 1Q24GB	Test Train	MO	ECML	Headway	Crag Mill	Major (indirect)
1Y22LN	LNER	SX	ECML	Headway	Doncaster	Minor (indirect)
6V82DC 6V82DB	GB Railfreight	MO, THO	June 24	Headway	Ashchurch	Major
2C95DA	Great Western	FSX	Wales	Junction Margin	Maindee West Junction	Minor
1B34DA	Great Western	FO	Wales	Junction Margin	Long Dyke Junction	Major
1B34DA	Great Western	FSX	Wales	Junction Margin	Severn Tunnel Junction	Major

Table 24: List of unresolved conflicts for 1V41

This service runs through an unused CrossCountry path from Edinburgh to the southwest (which CrossCountry are not looking to reinstate).

Significant remaining conflicts:

- Conflict with 1V41 and freight schedules between Northallerton and Doncaster include 4E04 at Northallerton and 4L78/4L79 [FO] at Temple Hirst Junction: these freight schedules have conflicts



with other services in the ECML ESG database. Due to this, no solution could be found without impacting other services further.

- Conflict between 1V41 and 6V81 at Sunnyhill, south of Derby. 6V81 and its Y-paths require a larger gap between other schedules due to being 2000+ tonnes. Although there are locations to stop this schedule between Derby and Landor Street, due to its speed and insufficient time in the schedule (pathing or A-stops), there is no alternative that could return it back to its original timings.

25 other schedules were changed to resolve conflicts with 1V41. See list of changed schedules and detail of change in G.03.

Significant changes in the ECML ESG:

- 1E22 Edinburgh to London King's Cross schedule operated by LNER retimed to depart Edinburgh 5 minutes earlier to enable the 16:00 departure for 1V41. The schedule gets back to booked by Newcastle, however the retime means that 1E22 is different from LNER's hourly pattern.
- 9E14 Liverpool Lime Street to Newcastle schedule operated by TransPennine Express retimed between Birtley Junction and Newcastle to arrive Newcastle platform 11 later for junction margin with 1V41 departing platform 2 towards the south. As a consequence, 1E44 CrossCountry schedule was retimed to arrive Newcastle 3 minutes later (following 9E14).

No significant changes in the June 24 and Wales ESG databases.

C.03.10 1V67BB 17:27 Edinburgh to Cardiff

This schedule has 13 direct and 0 indirect unresolved conflicts left across all databases, listed in Table 25.

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
4M64FA	GB Railfreight	SX	ECML	Headway	Burton-on-Trent	Major
6E45GG	GB Railfreight	MWFO	ECML	Junction Margin	Crag Mill	Major
5P09LC	ScotRail	SX	ECML	Platform-end margin	Edinburgh	Major
2R67GG	West Midlands Trains	SX	June 24	Headway	Proof House Junction	Fundamental
1V71DC	CrossCountry	SX	June 24	Clash	Birmingham-Barnwood	Fundamental
2066GG	West Midlands Trains	SX	June 24	Headway	Bromsgrove	Major
5G29DA	Great Western	SX	Wales	Headway	Cheltenham	Major
6E47DD	DB Cargo	FSX	June 24	Junction Margin	Kings Norton	Major
6V61DN	DB Cargo	FSX, FO	Wales	Clash	Lydney	Fundamental

Headcode	Operator	Operating day	Database	Conflict type	Location	Conflict classification
6V81DB	DB Cargo	MWO, TTHO, FO	Wales	Headway	Lydney	Major
6V57DB	DB Cargo	TTHO	Wales	Headway	Lydney	Fundamental
3F34DA	Transport for Wales	SX	Wales	Platform re-occupation	Cardiff	Fundamental
2N50JS	Great Western	MSX	Wales	Clash	Newport	Fundamental

Table 25: List of unresolved conflicts for 1V67

Significant remaining conflicts:

- Headway conflict between 2066, 1V67 and 1V71 between Birmingham New Street and Gloucester Junction. 2060 terminates in Bromsgrove and as such, there is no leeway to retime this service. The headway conflict continues to Gloucester. Retiming the CrossCountry was explored however when entering the Wales ESG, a retime to this schedule causes consequential conflicts around Bristol.
- Freight conflicts in the Wales ESG, between 1V67, 6V61, 6V57 and 6V81. There is a clash with 6V57 at Lydney, however solution would be required for all of these schedules involved in the clash.

28 other schedules were changed to resolve conflicts with 1V67. See list of changed schedules and detail of change in G.03.

Significant changes in the ECML ESG:

- 2A41 Newcastle to Morpeth service: retimed to depart Morpeth 1 minute early and removed (1) approaching Newcastle, for headway with 1V67. This caused a platform-end conflict with 2A42 Newcastle to Morpeth service at Newcastle. Due to this conflict, 2A42 was retimed to depart 2 minutes earlier, and a series of platform changes were implemented for services between 18:30-19:00.
- 1P86 Saltburn to Manchester Airport service operated by TransPennine Express: moved to the Slow Lines between Thirsk-Skelton Junction to enable capacity for 1V99 on the Fast Lines. As the SRTs are longer on the Slow Line, York dwell was reduced by 3 minutes (from 5 to 2) and 1P86 departs York as booked. 2 minutes is the minimum dwell for TransPennine Express at York (with operator agreement.)
- 5S16 ScotRail and 5S95 LUMO ECSs were retimed to depart Edinburgh 2 minutes earlier, for headway with 1V67 departing Edinburgh at 17:27.

No significant changes in the June 24 and Wales ESG databases.

C.04 Strategic capacity paths

3 strategic capacity paths (commonly referred to as ‘QJ’ paths due to the final two digits of headcodes in planning systems) have conflicts with the Alliance paths (shown in Table 26). Solutions were not identified for these that would allow the retention of the full strategic capacity path; however, these could be partially used to accommodate the relevant paths.

Headcode	Operating day	Origin	Destination	Database	Conflicting Alliance schedule
6M55QJ	MWO	Portbury Coal Terminal	Basford Hall	Wales	1S81BB
6D24QJ	SX	North Blyth GB Railfreight	York Yard South Junction	ECML	1V93BB
6V30QJ	SX	Handworth Queens Head Sidings	Cardiff Tidal T.C.	Wales	1V93BB

Table 26: List of strategic capacity paths conflicting with Alliance paths

C.05 Engineering Access Statement

The 2024 V.4 Engineering Access Statement (EAS) was checked against the Alliance paths for the following routes: Western and Wales, North-West and Central, East Midlands, LNER and Scotland.

Section 4 possession opportunities wouldn’t affect the paths Monday-Friday, apart from two-track timetable requirements on GW900 mid-week, requiring trains to run over the Relief Lines between Long Dyke Junction and Severn Tunnel Junction, as shown in G.02. The affected Alliance schedules were:

- 1S87 departing Cardiff at 05:30
- 1V41 arriving in Cardiff at 22:40
- 1V67 arriving in Cardiff at 00:09

C.06 Unit length assessment

Timing load for Alliance Rail will be class 22x (221 or 222). The assumed length of the service will be 117m for a 5-car formation, although this analysis was to comment on where the use of a 7-car 163m formation would not be possible. Stopping locations assessed:

- Cardiff Central, Newport, Severn Tunnel Junction, Gloucester, Birmingham New Street, Derby, Sheffield, Doncaster, York, Newcastle, Edinburgh

Table 27 shows a summary of locations and platforms with unsuitable length for the Alliance formations:

Station	Platform	Length	5-car: 117m	7-car: 163m
Cardiff Central	0	99m	⊘	⊘
Severn Tunnel Junction	1	154m	✓	⊘
Edinburgh	1 and 20	156m	✓	⊘
	3 (bay)	119m	✓	⊘

Table 27: Locations with unsuitable length for Alliance formations

Part D: Assumptions

D.01 Geographic Scope

Geographic scope for this analysis was aligned with the intended route of the services (see Figure 65).

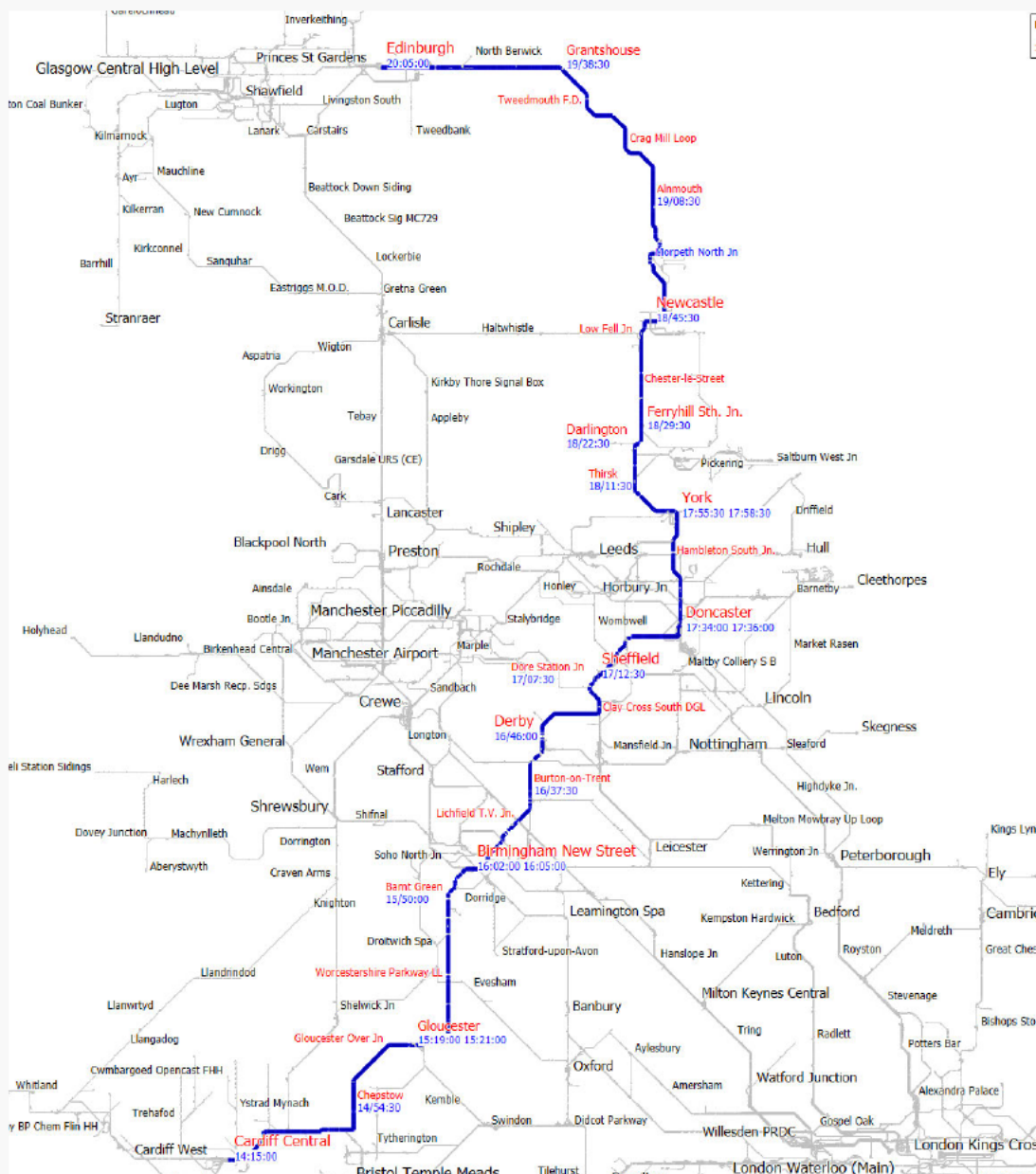


Figure 65: Intended route of the Alliance paths

D.01.01 Geographic boundary of the ECML ESG

Assumed as Landor Street Junction

D.01.02 Geographic boundary of the Wales ESG

Assumed as Gloucester / Cheltenham

D.02 Timetable Scope

Timetable scope was to match the timings of the included paths.
This was for Monday to Friday services only.

D.03 Timetable Planning Rules

The TPRs used for this analysis were the 2024 v4 Timetable Planning Rules for the relevant routes. TPR assumptions that are part of the ECML ESG were included within the boundaries of that CTP.

Assumptions relating to the new services including turnround times, dwells and SRTs were noted to ensure that they are consulted through the correct Network Code Part D, section 2 process.

Proposed changes to the current TPRs need to be communicated to the relevant TPR lead within Capacity Planning by the project Sponsor a minimum of 70 weeks prior to TPR production. This is to allow consultation with the industry ahead of the production of the final agreed set of TPR which are produced 44 weeks prior to the December timetable start.

Submission to TPR lead required by	Timetable Year	Submission to TPR lead required by	Timetable Year
September 2023	December 2024	February 2023	May 2024
September 2024	December 2025	February 2024	May 2025
September 2025	December 2026	February 2025	May 2026

All significant change should be implemented at the December timetable change where possible. Failure to communicate proposed TPR changes to the TPR lead in the correct time scales risks delaying acceptance of the proposed change until the next TPR release.

D.04 Engineering Access Statement

Section 4 of the 2024 v4 Engineering Access was considered by this analysis.

D.05 Timing Load Assumptions

Timing load for Alliance Rail will be class 22x (221 or 222). The assumed length of the service will be 117m for a 5-car formation, although it was be noted where the use of a 7 car 161m formation would not be possible.

All other services used the timing loads contained in the source timetables.

D.06 Source Timetable

The source timetables for the analysis were:

- Draft June 2024 production timetable (available from late December 2023): a copy of the Timetable data was taken on the 4th January, 2024 and does not include the following:
 - Avanti paths with rights in the June 24 timetable that are currently unused (relating to Birmingham New Street)
 - WMT Camp Hill services seeking rights for December 24 timetable

- Cross Country Hydra paths
- Development Timetable for the Wales ESG (currently targeted for the December 2024 timetable change): a copy of the Development Timetable was taken on the 4th January, 2024
- Development Timetable for the ECML ESG (currently targeted for the December 2024 timetable change): a copy of the Development Timetable was taken on the 4th January, 2024. This timetable base includes the CrossCountry Hydra paths.

D.07 Infrastructure

Infrastructure was assumed to match that of the June 24 timetable.

D.08 Performance data

Data used was December 2023 performance figures for weekday LTP services (real data). This was completed to 9th April 2024 for this analysis.

Part E: Methodology

E.01 Timetable Analysis

This analysis was intended to be a collaborative piece of work between analysts from the Advanced Timetable Team and a representative for Alliance Rail. It was a timetable capacity analysis using multi-user ATTune including agreed base timetables and proposed paths.

Base timetables and their boundaries are listed in sections D.06 and D.01. Analysis of paths was done within the relevant timetable or concept train plan for each section of the route (in general, the Wales ESG for the section in Wales, the ECML ESG for the Eastern region and the draft June 24 timetable for the section between including Birmingham New Street). Timings were matched up at boundaries rather than this analysis attempting to combine all three sources into a single analysis timetable.

E.02 Performance assessments

Additionally, Performance assessments were conducted at stages throughout the lifecycle of the analysis and fed back to the project group from the Performance and Simulation team in NR. Initially it provided a performance insight into current and historic performance at key locations along the route. All findings will be presented as a presentation pack compiling all observations and findings of the assessments conducted.

Performance Assessment of the option timetable/new paths to be bid, to include:

- Utilising the P&ST PIF Analyser, identified timetables were uploaded into the tool to compare the timetable structure. This provided a quantified and qualitative view into what is driving observed performance.
- Assessment of the flighting of the paths at key locations
- Headway analysis to demonstrate proximity of trains to each other through different corridors, where appropriate.
- Performance assessment of historic performance at key locations on the route including congestion and turnaround impacts

Performance was assessed for the below locations:

- Cardiff Central
- Gloucester
- Birmingham New Street
- Sheffield
- Edinburgh

Part F: Analytical Assurance Statement

Assurance Rating		
Line of Defence Level	Assurer	Assurance date
2nd	M Darms, DP Amarasinghe, J Bowdler	17/04/2024

Part G: Appendix

G.01 Train prints of the Alliance Paths

G.01.01 Northbound

Single Train Report															
Train: XX 150708Z19 SX(2022100112) Alliance Rail															
TrainID: 1S87B8		Train Class: 1		Train Category: XX											
SignalID: 1S87		TOC TrainID:		Train UID:											
Bid/Offer Status: BI		RSID Headcode: 1200		Validity Status:											
TOC Status:															
From: 15/12/2024		Unit: 16/05/2025		Days Pattern: SX											
Origin Loc: CRDFCEN		Origin Time: 05:30		Service Code: 22180012											
Destination Loc: EDNBUR		Destination Time: 11:38		ODT: Mondays to Fridays											
Distance: 436.5mi		Model Train: 221		Timing Load: 221/-125/-											
Publication Date:		Train Length (m): 0		Power Type: DMU											
		Limiting Speed:		Trailing Load:											
Bank Holidays:		Sleepers:		Catering: T											
Reservations: S		Brand:		Ops Char:											
Business Sector:		Accommodation: B		UIC Number:											
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances				Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	ph	prf	Adj	Arr	Dep
CRDFCEN	Cardiff Central		05:30		05:30		TB	1 Up	B						
LNGDYKJ	Long Dyke Jn		05:31%			/			RL						
MSHFIL	Marshfield		05:39			/			RL						
EBBWJ	Ebbw Jn		05:42%			/			RL						
GAERJ	Gaer Jn		05:44						DML						
NWPTRTG	Newport (South Wales)	05:46	05:47%	05:46	05:47	1:30	T	3 Up	ML						
MANDWJ	Maindee West Jn		05:49			/			ML						
LWERNWJ	Llanwrn West Junction		05:51			/			ML						
SEYNLJ	Seyn Tunnel Junction	05:56%	05:58	05:57	05:58	1:30	T	2 Up							
CHEPSTW	Chepstow		06:05%			/									
LYDNEY	Lydney		06:12			/									
AWRE	Awre		06:17			/				1					
GLOSTER	Gloucester	06:31	06:32%	06:31	06:32	1:30	T	4 Up					½		
HRTNRDJ	Horton Road Jn		06:34			/			ML						
BNWDJN	Barnwood Jn		06:35			/							1		
CHLTHM	Cheltenham Spa		06:40			/		2 Up							
ASHCHRC	Ashchurch		06:45			/		1 Up							
ABTSWDJ	Abbotswood Jn		06:51%			/									
STKWKSJ	Stoke Works Jn		06:58%			/									
BRMSGRV	Bromsgrove		07:00			/		2 Up		1					
BGRN	Barn Green		07:04			/		1 Up	FL						
LONB	Longbridge		07:05%			/			FL						
KNORTON	Kings Norton		07:07%			/				1					
SELYOAK	Selly Oak		07:11			/									
FIVEWYS	Five Ways		07:14			/		1 Up							
BHAMNWS	Birmingham New Street	07:17	07:30	07:17	07:30	13:00	T	10 Up	DEL						
PROOFHJ	Proof House Jn		07:32			/									
LNDRSTJ	Lands Road Jn		07:34			/									
CBOMJN	Castle Bromwich Jn		07:37%			/			ML						
WTRORTN	Water Orton		07:38%			/		2 Up	ML						
KINGSBJ	Kingsbury Jn		07:41			/									
TMWTHHL	Tamworth High Level		07:44			/									
WICHNRJ	Wichener Jn		07:47%			/									
BURNOT	Burton-on-Trent		07:50%			/		1 Up	UTF						
CLMLJN	Clay Mills Jn		07:52%			/									
NSJDRBY	North Stafford Jn		07:54%			/									
STSNJN	Stenson Jn		07:55			/									
DRBYLNW	L.N.W. Jn. Derby		07:57%			/			UTF	1					
DRBY	Derby	08:00	08:02	08:00	08:02	2:00	T	1 Down	A						
DRBYSMS	St.Mary's South Junction		08:03%			/			DF						
AMBERGJ	Ambergate Jn		08:09			/									
CLAYXNJ	Clay Cross North Jn		08:15%			/			ML						
CHFDJ	Chesterfield South Jn		08:17			/			ML						
CHFD	Chesterfield		08:17%			/		1 Down	ML						
TAPTONJ	Tapton Jn		08:18			/									
DORESNJ	Dore Station Jn		08:23%			/				1					
SHEFFLD	Sheffield	08:29	08:32	08:29	08:32	3:00	T	2 Down							
NNRMLJ	Nunney Main Line Jn		08:33%			/									
WNCOJN	Wincobank Jn.		08:35%			/									
ROTHUN	Holmes Jn		08:37			/									
ALDWKJ	Aldwarke Jn		08:40			/									
SWINTN	Swinton (S.Yorks)		08:47			/									
MEXBORGH	Mexborough		08:48%			/									
DONKHJN	Hexthorpe Jn		08:53			/				1					
DONC	Doncaster	08:57	08:59	08:57	08:59	2:00	T	8 Down					1		
SHFTHLJ	Shaftholme Jn		09:03%			/									
TEMPHJ	Temple Hirst Jn		09:08			/									
HAMBUNJ	Hambleton North Jn		09:10%			/				1					
COLTONJ	Colton Jn		09:15%			/			NNL						
YORK	York	09:19%	09:22	09:20	09:22	2:30	T	11 Down							
SKELTON	Skelton Jn. Yorkshire		09:24%			/			FL						
TOLERTN	Tollereton Jn.		09:29			/			FL						
THIRSK	Thirsk		09:35			/			FL						
NLRTN	Northallerton		09:39			/							1		
DLTN	Darlington		09:47			/		DML Down					½		
FYHLSJN	Ferryhill Sth. Jn.		09:54%			/									
TURSDLJ	Tunstall Jn		09:56			/							½		

DRHM	Durham		10/01			/			2 Down	1						
BRTLYJN	Birtley Jn		10/07½			/										
KEBGSJN	King Edward Bridge S. Jn		10/10½			/										
NWCSTLE	Newcastle	10a12½	10.15	10.13	10.15	2:30	T		3 Down							
MANORS	Manors		10/16½			/			2 Down							
HTONSJN	Heston Sth. Jn.		10/18			/										
BENTON	Benton Nth Jn		10/19½			/										
MRP1HRP	Morpeth		10/27			/			2 Down							
ALNMOTH	Ainmuth		10/38½			/			2 Down							
BELFORD	Belford L.C.		10/48			/				1						
DRWCKUT	Darwick-upon-Tweed		10/67½			/			2 Down							
REST403	Reston Signal EG403		11/00			/										
RESTSTN	Reston RESTSTN		11/05			/										
GTHS	Grantshouse		11/09½			/										
OXWLCO	Oxwellmaire Crossover		11/15½			/										
DUNBAR	Dunbar		11/17			/			2 Down		1					
DRENU	Drem		11/24½			/			2 Down							
PPAN	Prestonpans		11/29			/				1						
MNK1NHJ	Monktonhall Jn		11/32			/										
PORTOBL	Portobello Jn (Edinburgh)		11/33½			/										
CRGNTYJ	Craigentney Jn		11/34½			/										
ABHLJN	Acobeyhill Jn		11/36			/				SL						
EDNBUR	Edinburgh	11.38		11.38			TF	11								

Single Train Report																
Train: XX 158188/28 SX (2922-09012) Alliance Rail																
TrainID: 158188		Train Class: 1		Train Category: XX												
SignalID: 1581		TOC TrainID:		Train UID:												
Blid/Offer Status: BI		RSID Headcode: 1200		Validity Status:												
TOC Status:		Unit: 16/05/2025		Days Pattern: SX												
From: 16/12/2024		Origin Time: 07:08		Service Code: 22180012												
Origin Loc: CRDFCEN		Destination Time: 13:38		OOT: Mondays to Fridays												
Destination Loc: EDNBUR		Model Train: 221		Timing Load: 2211-1251-												
Distance: 436.5mi		Train Length (m): 0		Power Type: DMJ												
Publication Date:		Limiting Speed:		Trailing Load:												
Bank Holidays:		Sleepers:		Catering: T												
Reservations: S		Brand:		Ops Char:												
Business Sector:		Accommodation: B		UIC Number:												
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances					Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	pth	prf	Adj	Arr	Dep	
CRDFCEN	Cardiff Central		07:08		07:08		TB	0 Up	B							
LNGDYKJ	Long Dyke Jn		07:09½		/				ML							
MSHFLD	Marshfield		07:14½		/				ML							
EBBWJ	Ebbw Jn		07:17		/				ML							
GAERJ	Gower Jn		07:18½		/				ML							
NAPTTRTG	Newport (South Wales)	07:20½	07:23	07:21	07:22	1:30	T	3 Up	ML							
MANDWJ	Mandoe West Jn		07:23½		/				ML							
LWERWJN	Llanwern West Junction		07:25½		/				ML							
SEVTNLJ	Severn Tunnel Junction	07:31	07:32½	07:31	07:32	1:30	T	2 Up								
CHEPSTW	Chepstow		07:40		/											
LYDNEY	Lydney		07:46½		/											
AWRE	Awre		07:51½		/					1						
GLOSTER	Gloucester	08:05½	08:15	08:06	08:15	9:30	T	4 Up					½			
HRTNRD	Horton Road Jn		08:16½		/				ML							
BNWDJN	Barnwood Jn		08:17½		/								1			
CHLTNHM	Cheltenham Spa		08:22½		/			2 Up								
ASHCHRC	Ashchurch		08:27½		/			1 Up								
ABTSWDJ	Abbotswood Jn		08:34		/							2½				
STKWKSJ	Stoke Works Jn		08:43½		/							3				
BRMSGRV	Bromsgrove		08:48		/			2 Up		1	3					
BGRN	Bam Green		08:55		/			1 Up	FL		1½					
LONB	Longbridge		08:58		/				FL		2					
KNORTON	Kings Norton		09:02		/					1	2					
SELYOAK	Selly Oak		09:07½		/						2½					
FIVEWYS	Five Ways		09:13		/			1 Up								
BHAMWWS	Birmingham New Street	09:16	09:20	09:16	09:20	4:00	T	11 Up	DEL							
PROOFHU	Proof House Jn		09:22		/											
LANDRSTJ	Lander Street Jn		09:24		/				ML							
CBOMUN	Castle Bromwich Jn		09:27½		/				ML							
WTRORTN	Water Orton		09:29½		/			2 Up			1					
KNGSBYJ	Kingsbury Jn		09:32		/						1					
TMWTHHL	Tarnworth High Level		09:36		/						1					
WICHNRJ	Wichnor Jn		09:40½		/						2					
BURKNOT	Burton-on-Trent		09:45½		/			1 Up	UTF		½					
CLMLJN	Clay Mills Jn		09:48		/											
NSJDRBY	North Stafford Jn		09:50		/											
STSNJN	Stenson Jn		09:50½		/											
DRBYLNW	L.N.W. Jn, Derby		09:53		/				UTF	1						
DRBY	Derby	09:55½	10:00	09:56	10:00	4:30	T	1 Down	A							
DRBYSMS	St Mary's South Junction		10:01½		/				DF							
AMBERGJ	Ambergate Jn		10:07		/											
CLAYXNJ	Clay Cross North Jn		10:13½		/				ML							
CHFDSJ	Chesterfield South Jn		10:15		/				ML							
CHFD	Chesterfield		10:15½		/			1 Down	ML		1					
TAPTONJ	Tapton Jn		10:17		/											
DORSTN	Dore Station Jn		10:22½		/					1						
SHEFFLD	Sheffield	10:28	10:32	10:28	10:32	4:00	T	5 Down								
NNRYMLJ	Nunery Main Line Jn		10:33½		/											
WINCOJN	Wincobank Jn		10:36½		/						½					
ROTHUN	Holmes Jn		10:37½		/						2½					
ALDWKJ	Aldwarke Jn		10:42½		/						1½	1	½			
SWINTN	Swinton (S. Yorks)		10:47		/											
MEXBRGH	Mexborough		10:48½		/											
DONCHJN	Heathorpe Jn		10:53		/					1						
DONC	Doncaster	10:57	10:59	10:57	10:59	2:00	T	4 Down								
SHFTHLJ	Shaftholme Jn		11:02½		/											
TEMPHU	Temple Hirst Jn		11:07		/											
HAMBUNJ	Hambleton North Jn		11:09½		/					1						
COLTONJ	Colton Jn		11:14½		/				NNL		½					
YORK	York	11:19	11:21½	11:19	11:21	2:30	T	11 Down								
SKELTON	Skellon Jn, Yorkshire		11:24		/				FL							
TOLERTN	Tollerton Jn		11:28½		/				FL							
THRSK	Thirsk		11:34½		/				FL							
NLRTN	Northallerton		11:38½		/							1				
DLTN	Darlington		11:46½		/			DML Down								
FYHLSJN	Ferryhill Stn Jn		11:53½		/											
TURSDLJ	Tursdale Jn		11:55		/						2					
DRHM	Durham		12:01½		/			2 Down		1						
BRTLYJN	Birtley Jn		12:08		/											
KEBGSJN	King Edward Bridge S. Jn		12:11		/						½					
NWCSTLE	Newcastle	12:13½	12:15½	12:14	12:15	2:00	T	2 Down								
HTONSJN	Heaton Stn Jn		12:18		/											
BENTON	Benton Nth Jn		12:19½		/											
MRPTHRP	Morpeth		12:27		/			2 Down								
ALNMOTH	Alnmouth		12:36½		/			2 Down								
BELFORD	Belford L.C.		12:48		/					1						
BRWOKUT	Barnwick-upon-Tweed		12:57½		/			2 Down								
REST403	Reston Signal EG403		13:00		/											
RESTSTN	Reston RESTS TN		13:05		/											
GTHS	Grantshouse		13:09½		/											
OXWLCO	Oxwellmaine Crossover		13:15½		/											
DUNBAR	Dunbar		13:17		/			2 Down			1					
DREM	Drem		13:24½		/			2 Down								
PPAN	Prestonpans		13:29		/					1						
MNKTNHJ	Monktonhall Jn		13:32		/											
PORTOBL	Portobello Jn (Edinburgh)		13:33½		/											
CRGNTYJ	Craigentinny Jn		13:34½		/											
ABHLJN	Abbeyhill Jn		13:36		/				SL							
EDNBUR	Edinburgh	13:38		13:38			TF	11								

Single Train Report															
Train: X 1585C/220 SX/220210012 Alliance Rail															
TrainID:	1585CC	Train Class:	1	Train Category:	XX										
SignalID:	1585	TOC TrainID:		Train UID:											
Bid/Offer Status:	BI	RSID Headcode:	1200	Validity Status:											
TOC Status:		Unit:	16/05/2025	Days Pattern:	SX										
From:	16/12/2024	Origin Time:	09:07	Service Code:	22180012										
Origin Loc:	CRDFCEN	Destination Time:	15:38	ODT:	Mondays to Fridays										
Destination Loc:	EDINBUR	Model Train:	221	Timing Load:	221/-125/-										
Distance:	436.5mi	Train Length (m):	0	Power Type:	DMJ										
Publication Date:		Limiting Speed:		Trailing Load:											
Bank Holidays:		Sleepers:		Catering:	T										
Reservations:	S	Brand:		Ops Char:											
Business Sector:		Accommodation:	B	UIC Number:											
Location	Location Name	Working Times		Public Times		Dwell	Activity	Allowances						Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	pth	pf	Adj	Arr	Dep
CRDFCEN	Cardiff Central		09:07		09:07		TB	0 Up	B		%				
LNGDYKJ	Long Dyke Jn		09:09						ML						
MSHPLD	Marshfield		09:14						ML						
EBBWJ	Ebbw Jn		09:16%						ML						
NWPRTRG	Newport (South Wales)	09:19	09:20%	09:19	09:20	1:30	T	3 Up	ML						
MAINDWJ	Maindee West Jn		09:22						ML						
LWERWJN	Llanwrn West Junction		09:24						ML						
SEVINLJ	Severn Tunnel Junction	09:29%	09:31	09:30	09:31	1:30	T	2 Up							
CHEPSTW	Chepstow		09:38%												
LYDNEY	Lydney		09:45												
AWRE	Awre		09:50							1	2				
GLOSTER	Gloucester	10:06	10:11	10:06	10:11	5:00	T	4 Up				%			
HRTNRDJ	Horton Road Jn		10:12%						ML		1				
BNWDJN	Barnwood Jn		10:14%								2	1			
CHLTHM	Cheltenham Spa		10:21%					2 Up							
ASHCHRC	Ashchurch		10:26%					1 Up			1%				
ABTSWDJ	Abbotswood Jn		10:34%								5				
STKWKSJ	Stoke Works Jn		10:46%								1				
BRMSGRV	Bromsgrove		10:49					2 Up		1	2%				
BGRN	Barnt Green		10:55%					1 Up	FL		1				
LONB	Longbridge		10:58						FL		2				
KNORTON	Kings Norton		11:02							1	2				
SELYOAK	Selly Oak		11:07%								2%				
FWEWYS	Five Ways		11:13					1 Up							
BHAMNWS	Birmingham New Street	11:16	11:20	11:16	11:20	4:00	T	10 Up	DEL						
PROOFHJ	Proof House Jn		11:22												
LNDRSTJ	Londor Street Jn		11:24						ML						
CBOMJN	Castle Bromwich Jn		11:27%						ML						
WTRORTN	Water Orton		11:28%					2 Up							
KNGSBYJ	Kingsbury Jn		11:31								1				
TMWTHIL	Tamworth High Level		11:35								3				
WICHNRJ	Wichnor Jn		11:41%								1				
BURTNOT	Burton-on-Trent		11:45%					1 Up	UTF		1%				
CLMLJN	Clay Mills Jn		11:49								1				
NSJDRBY	North Stafford Jn		11:52												
STSNJN	Stenson Jn		11:52%												
DRBYLW	L.N.W. Jn. Derby		11:55						UTF	1					
DRBY	Derby	11:57%	12:00	11:58	12:00	2:30	T	1 Down	A						
DRBYSMS	St Mary's South Junction		12:01%						DF						
AMBERGJ	Ambergate Jn		12:07												
CLAYXNJ	Clay Cross North Jn		12:13%						ML						
CHFDSJ	Chesterfield South Jn		12:16						ML						
CHFD	Chesterfield		12:15%					1 Down	ML						
TAPTONJ	Tapton Jn		12:16								2%				
DORESNJ	Dore Station Jn		12:24							1					
SHEFFLD	Sheffield	12:29%	12:32	12:30	12:32	2:30	T	1 Down							
NNRYMLJ	Nunbury Main Line Jn		12:33%												
WNCJN	Wincobank Jn.		12:35%								%				
ROTHUN	Holmes Jn		12:37%								2%				
ALDWIRKJ	Aldwarke Jn		12:42%								1	1	%		
SWINTN	Swinton (S.Yorks)		12:46%								%				
MEXBRGH	Mexborough		12:48%												
DONCHJN	Hexthorpe Jn		12:53							1					
DONC	Doncaster	12:57	12:59	12:57	12:59	2:00	T	4 Down			%				
SHFTHLJ	Shaftholme Jn		13:03												
TEMPPLHJ	Temple Hirst Jn.		13:07%												
HAMBLNJ	Hambleton North Jn		13:10								1				
COLTONJ	Colton Jn		13:15						NNL						
YORK	York	13:19	13:22	13:19	13:22	3:00	T	11 Down							
SKELTON	Skelton Jn. Yorkshire		13:24%						FL						
TOLERTN	Tollereton Jn.		13:29						FL						
THIRSK	Thirsk		13:35						FL						
NLRTN	Northallerton		13:39									1			
DLTN	Darlington		13:47					DMIL Down							
FYHLSJN	Ferryhill Stn. Jn.		13:54												
TURSDLJ	Tursdale Jn		13:55%								1				
DRHAM	Durham		14:01					DM Down		1					
BRTLYJN	Birley Jn		14:07%												
KEBGSJN	King Edward Bridge S. Jn		14:10												
NWCSTLE	Newcastle	14:12	14:15	14:12	14:15	3:00	T	2 Down			1				
HTONSJN	Heaton Stn. Jn.		14:18%												
BENTUN	Benton Nth Jn		14:20												
MRPTRHP	Morpeth		14:27%					2 Down							
ALNMOTH	Alnmouth		14:39					2 Down							
BELFORD	Belford L.C.		14:48%							1					
BRWCKUT	Berwick upon Tweed		14:58					2 Down							
REST403	Reston Signal EG403		15:00%												
RESTSTN	Reston RESTSTN		15:05%												
GTHS	Grants House		15:09%												
OXWLCO	Oxwellmains Crossover		15:16												
DUNBAR	Dunbar		15:17%					2 Down				1			
DRENU	Drem		15:25					2 Down							
PPAN	Prestonpans		15:29%							1					
MNKINHJ	Morkklorhall Jn		15:32%												
PORTOBL	Portobello Jn (Edinburgh)		15:34												
CRGNTYJ	Craigentilly Jn		15:35								%				
ABHLJN	Abbeyhill Jn		15:36%						SL						
EDINBUR	Edinburgh	15:38		15:38			TF	7							

Single Train Report															
Train: XK 150900Z28 SX (202210012) Alliance Rail															
TrainID:	1S89BB	Train Class:	1	TrainCategory:	XX										
SignalID:	1S89	TOC TrainID:		TrainUID:											
Bid/Offer Status:	BI														
TOC Status:		RSID Headcode:	1200	Validity Status:											
From:	16/12/2024	Unit:	16/05/2025	Days Pattern:	SX										
Origin Loc:	CRDFCEN	Origin Time:	13:07	Service Code:	22180612										
Destination Loc:	EDNBUR	Destination Time:	19:53	ODT:	Mondays to Fridays										
Distance:	436.5mi	Model Train:	221	Timing Load:	221/-125/-										
PublicationDate:		Train Length (m):	0	Power Type:	DMU										
		Limiting Speed:		Trailing Load:											
Bank Holidays:		Sleepers:		Catering:	T										
Reservations:	S	Brand:		Ops Char:											
Business Sector:		Accommodation:	B	UIC Number:											
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances				Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	pth	prf	Adj	Arr	Dep
CRDFCEN	Cardiff Central		13:07		13:07		TB	0 Up	B		%				
LNGDYKJ	Long Dyke Jn		13:09		/				ML						
MSHFILD	Marshfield		13:14		/				ML						
EBBWJ	Ebbw Jn		13:16½		/				ML						
NWPTRTG	Newport (South Wales)	13:19	13p20½	13:19	13:20	1:30	T	3 Up	ML						
MAINDWJ	Maindee West Jn		13:22		/				ML						
LWERWJN	Llanwern West Junction		13:24		/				ML						
SEVTNLJ	Severn Tunnel Junction	13a29½	13:31	13:30	13:31	1:30	T	2 Up							
CHEPSTW	Chepstow		13:38½		/										
LYDNEY	Lydney		13:45		/										
AWRE	Awre		13:50		/					1					
GLOSTER	Gloucester	14:04	14:07	14:04	14:07	3:00	T	4 Up				%			
HRTNRDJ	Horton Road Jn		14:08½		/				ML		1½				
BNWDJN	Barnwood Jn		14:11		/						2½	1			
CHLTNHM	Cheltenham Spa		14:18½		/			2 Up			½				
ASHCHRC	Ashchurch		14:24		/			1 Up			4				
ABTSWDJ	Abbotswood Jn		14:34½		/						4				
STKWKSJ	Stoke Works Jn		14:45½		/						3				
BRMSGRV	Bromsgrove		14:50		/			2 Up		1	2				
BGRN	Barri Green		14:56		/			1 Up	FL		1				
LONB	Longbridge		14:58½		/				FL		2½				
KNORTON	Kings Norton		15:03		/					1	2				
SELYOAK	Selly Oak		15:08½		/						1½				
FIVEWYS	Five Ways		15:13		/			1 Up							
BHAMNWS	Birmingham New Street	15:16	15:19	15:16	15:19	3:00	T	10 Up	DEL						
PROOFHJ	Proof House Jn		15:21		/										
LNDRSTJ	Landor Street Jn		15:23		/				ML		½				
CROMJN	Caste Bromwich Jn		15:27		/				ML						
WTRORTN	Water Orton		15:28		/			2 Up							
KNGSBVJ	Kingsbury Jn		15:30½		/						1				
TMWTHHL	Tamworth High Level		15:34½		/						3				
WICHNRJ	Wichnor Jn		15:41		/						2				
BURTNOT	Burton-on-Trent		15:46		/			1 Up	UTF		1				
CLMLJN	Clay Mills Jn		15:49		/										
NSJDRBY	North Stafford Jn		15:51		/										
STSNJN	Stenson Jn		15:51½		/										
DRBYLNW	L.N.W. Jn. Derby		15:54		/				UTF	1					
DRBY	Derby	15a56½	16:00	15:57	16:00	3:30	T	1 Down	A						
DRBYGMS	St Mary's South Junction		16:01½		/				DF						
AMBERGJ	Ambergate Jn		16:07		/										
CLAYXNJ	Clay Cross North Jn		16:13½		/				ML						
CHFDSJ	Chesterfield South Jn		16:15		/				ML		1				
CHFD	Chesterfield		16:16½		/			1 Down	ML						
TAPTONJ	Tapton Jn		16:17		/										
DORESNJ	Dore Station Jn		16:22½		/					1					
SHEFFLD	Sheffield	16:28	16:32	16:28	16:32	4:00	T	1 Down							
NNRYMLJ	Nunnery Main Line Jn		16:33½		/										
WNGQJN	Wincobank Jn.		16:35½		/						½				
ROTHJUN	Holmes Jn		16:37½		/						2½				
ALDWKJ	Aldwarke Jn		16:42½		/						1½	1	½		
SWINTN	Swinton (S.Yorks)		16:47		/										
MEXBRGH	Mexborough		16:48½		/										
DONCHJN	Hexthorpe Jn		16:53		/					1					
DONC	Doncaster	16:57	16:59	16:57	16:59	2:00	T	4 Down							
SHFTHLJ	Shaftholme Jn		17:02½		/										
TEMPLHJ	Temple Hirst Jn.		17:07		/										
HAMBLNJ	Hambleton North Jn		17:09½		/					1					
COLTONJ	Colton Jn		17:14½		/				NNL						
YORK	York	17:19	17p21½	17:19	17:21	2:30	T	11 Down							
SKELTON	Skelton Jn. Yorkshire		17:24		/				FL						
TOLERTN	Tollerton Jn.		17:28½		/				FL						
THRSK	Thirsk		17:34½		/				FL						
NLRTN	Northallerton		17:38½		/							1			
DLTN	Darlington		17:46½		/			DML Down							
FYHLSJN	Ferryhill Stn. Jn.		17:53½		/										
TURSDLJ	Tursdale Jn		17:55		/										
DRHM	Durham		17:59½		/			DM Down		1					
BRTLYJN	Birtley Jn		18:06		/										
KEBGSJN	King Edward Bridge S. Jn		18:09		/										
NWCSTLE	Newcastle	18:11	18:14	18:11	18:14	3:00	T	2 Down							
HTONSJN	Heston Stn. Jn.		18:16½		/						%				
BENTON	Benlton Nth Jn		18:18½		/										
MRP:THRP	Morpeth		18:26		/			2 Down							
ALNMOTH	Alnmouth		18:37½		/			2 Down			1				
BELFORD	Belford L.C.		18:48		/					1	2				
BRWCKUT	Benwick-upon-Tweed		18:59½		/			2 Down							
REST403	Reston Signal EG403		19:02		/						2				
RESTSTN	Reston RESTSTN		19:09		/						2				
GTHS	Grantshouse		19:15½		/						4				
OXWLCO	Oxwellmains Crossover		19:25½		/										
DUNBAR	Dunbar		19:27		/			2 Down			2	1			
DREMJ	Drem		19:36½		/			2 Down			1				
PPAN	Prestonpans		19:42		/					1					
MKNTHJ	Morktonhall Jn		19:45		/										
PORTOBL	Portobello Jn (Edinburgh)		19:46½		/										
CRGNTYJ	Craigentinny Jn		19:47½		/						1				
ABHLJN	Abbeyhill Jn		19:50		/				SL		1				
EDNBUR	Edinburgh	19:53		19:53			TF	7							

Single Train Report															
Train: XX 159188/219 SX (202210012) Alliance Rail															
TrainID:	159188	Train Class:	1	Train Category:	XX										
SignalID:	1591	TOC TrainID:		Train UID:											
Bid/Offer Status:	BI	RSID Headcode:	1200	Validity Status:											
TOC Status:		Unit:	16/12/2024	16/05/2025	Days Pattern:	SX	22160012 Mondays to Fridays 2211/125/- DMU								
From:	16/12/2024	Origin Time:	16:06:30	Service Code:	22160012										
Origin Loc:	CRDFCEN	Destination Time:	22:41	ODT:	Mondays to Fridays										
Destination Loc:	EDINEUR	Model Train:	221	Timing Load:	2211/125/-										
Distance:	436.5mi	Train Length (m):	0	Power Type:	DMU										
Publication Date:		Limiting Speed:		Trailing Load:											
Bank Holidays:		Sleepers:		Catering:	T										
Reservations:	S	Brand:		Ops Char:											
Business Sector:		Accommodation:	B	UIC Number:											
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances				Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	pth	prf	Adj	Arr	Dep
CRDFCEN	Cardiff Central		16p06½		16.06		TB	0 Up	B						
LNGDYKJ	Long Dyke Jn		16:08		/				ML						
MSHFLD	Marshfield		16:13		/				ML						
EBBWJ	Ebbw Jn		16:15½		/				ML						
NWPTRTG	Newport (South Wales)	16.18	16.20	16.18	16.20	2:00	T	3 Up	ML						
MAINDWJ	Maindee West Jn		16:21½		/				ML						
LWERWJN	Llanwrern West Junction		16:23½		/				ML						
SEVTNLJ	Severn Tunnel Junction	16.29	16p30½	16.29	16.30	1:30	T	2 Up							
CHEPSTW	Chepstow		16:38		/										
LYDNEY	Lydney		16:44½		/										
AWRE	Awre		16:49½		/					1					
GLOSTER	Gloucester	17a03½	17.11	17.04	17.11	7:30	T	4 Up					½		
HRTNRDJ	Horton Road Jn		17:12½		/				ML						
BNWDJN	Barnwood Jn		17:13½		/						2		1		
CHLTNHM	Cheltenham Spa		17:20½		/			2 Up							
ASHCHRC	Ashchurch		17:26½		/			1 Up				3½			
ABTSWDJ	Abbotswood Jn		17:36½		/							4			
STKWKSJ	Stoke Works Jn		17:47½		/							1			
BRMSGRV	Bromsgrove		17:50		/			2 Up		1	2				
BGRN	Barn Green		17:56		/			1 Up	FL		1				
LONB	Longbridge		17:58½		/				FL		2				
KNORTON	Kings Norton		18:02½		/					1	2				
SELYOAK	Selly Oak		18:08		/						2				
FIVEWYS	Five Ways		18:13		/			1 Up							
BHAMNWS	Birmingham New Street	18.16	18.19	18.16	18.19	3:00	T	10 Up	DEL						
PROOFHJ	Proof House Jn		18:21		/										
LNDRSTJ	Landor Street Jn		18:23		/				ML						
CBOMJN	Castle Bromwich Jn		18:26½		/				ML						
WTRORTN	Water Orton		18:27½		/			2 Up			1				
KNGSBYJ	Kingsbury Jn		18:31		/						1				
TMWTHHL	Tamworth High Level		18:35		/						1				
WICHNRJ	Wichnor Jn		18:39½		/						1				
BURTNOT	Burton-on-Trent		18:43½		/			1 Up	UTF		2½				
CLMLJN	Clay Mills Jn		18:48		/										
NSJDRBY	North Stafford Jn		18:50		/										
STSNJN	Stenson Jn		18:50½		/										
DRBYLNW	L.N.W. Jn, Derby		18:53		/				UTF	1					
DRBY	Derby	18a55½	18p57½	18.56	18.57	2:00	T	1 Down	A						
DRBYSMS	St Mary's South Junction		18:59		/				DF		½				
AMBERGJ	Ambergate Jn		19:05		/										
CLAYXNJ	Clay Cross North Jn		19:11½		/				ML		2				
CHFD SJ	Chesterfield South Jn		19:15		/				ML		1				
CHFD	Chesterfield		19:16½		/			1 Down	ML		½				
TAPTONJ	Tapton Jn		19:17½		/						1				
DORASNJ	Dore Station Jn		19:24		/					1					
SHEFFLD	Sheffield	19a29½	19p31½	19.30	19.31	2:00	T	2 Down							
NNRMLJ	Nunery Main Line Jn		19:33		/						1				
WNCJN	Wincobank Jn		19:36		/						1				
ROTHJN	Holmes Jn		19:39½		/						2½				
ALDWKJN	Aldwarke Jn		19:43½		/						½	1	½		
SWINTN	Swinton (S.York)		19:47		/										
MEXBRGH	Mexborough		19:48½		/										
DONCHJN	Hexthorpe Jn		19:53		/					1					
DONC	Doncaster	19.57	19.59	19.57	19.59	2:00	T	4 Down			1				
SHFTHLJ	Shaftholme Jn		20:03½		/										
TEMPHJ	Temple Hirst Jn		20:08		/										
HAMBLNJ	Hambledon North Jn		20:10½		/					1					
COLTONJ	Colton Jn		20:15½		/										
YORK	York	20.20	20.23	20.20	20.23	3:00	T	5 Down							
SKELTON	Skelton Jn, Yorkshire		20:25½		/				FL						
TOLERTN	Tollerthorpe Jn		20:30		/				FL						
THIRSK	Thirsk		20:36		/				FL						
NLRTN	Northallerton		20:40		/							1			
DLTN	Darlington		20:48		/			DML Down							
FYHLSJN	Ferryhill Sth. Jn.		20:55		/										
TURSDLJ	Tursdale Jn		20:59½		/										
DRHM	Durham		21:01		/			2 Down		1					
BRTLYJN	Birtley Jn		21:07½		/										
KEBGSJN	King Edward Bridge S. Jn		21:10½		/										
NWCSTLE	Newcastle	21a12½	21.17	21.13	21.17	4:30	T	2 Down							
HTONSJN	Heaton Sth. Jn.		21:19½		/										
BENTON	Benton Nth Jn		21:21		/										
MRPTHRP	Morpeth		21:28½		/			2 Down			1				
ALNMOTH	Alnmouth		21:41		/			2 Down							
BELFORD	Belford L.C.		21:50½		/					1	½				
BRWCKUT	Berwick-upon-Tweed		22:00½		/			2 Down							
REST403	Reston Signal EG403		22:03		/										
RESTSTN	Reston RESTSTN		22:08		/										
GTHS	Grantham		22:12½		/										
OXWLCO	Oxwellmains Crossover		22:18½		/										
DUNBAR	Dunbar		22:20		/			2 Down				1			
DREM	Drem		22:27½		/			2 Down							
PPAN	Prestonpans		22:32		/						1				
MNKTNHJ	Monktonhall Jn		22:35		/										
PORTOBL	Portobello Jn (Edinburgh)		22:36½		/										
CRGNTYJ	Craigentinny Jn		22:37½		/										
ABHLJN	Abbeystall Jn		22:39		/				SL						
EDINBUR	Edinburgh	22.41		22.41			TF	7							

G.01.02 Southbound

Single Train Report															
Train: XI 1V99TH(218) SX(202218000) Alliance Rail															
TrainID: 1V99TH		Train Class: 1		Train Category: XX											
SignalID: 1V99		TOC TrainID:		Train UID:											
Bid/Order Status: BI				Validity Status:											
TOC Status:		RSID Headcode: 1550		Days Pattern: SX											
From: 15/12/2024		Unit: 17/05/2025		Service Code: 22180008											
Origin Loc: EDINBUR		Origin Time: 07:27		OOT: Mondays to Fridays											
Destination Loc: CRDFCEN		Destination Time: 14:14		Timing Load: 221-/125-											
Distance: 436mi		Model Train: 221		Power Type: DMU											
Publication Date:		Train Length (m): 0		Trailing Load:											
Bank Holidays:		Sleepers:		Catering: T											
Reservations: S		Brand:		Ops Char:											
Business Sector:		Accommodation: B		UIC Number:											
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances				Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	ph	pf	Adj	Arr	Dep
EDINBUR	Edinburgh		07:27		07:27		TD	1 Up	NL						
ABHLJN	Abbeyhill Jn		07:28½												
CRGNTYJ	Craigentinny Jn		07:29½												
PORTOBL	Portobello Jn (Edinburgh)		07:30½												
MNKTNHJ	Monktonhall Jn		07:32												
PPAN	Prestonpans		07:34												
DREMJ	Drem		07:38½					1 Up							
DUNBAR	Dunbar		07:45												
OXWLCO	Oxwellmains Crossover		07:46½												
GTHS	Grants house		07:53							1					
RESTSTN	Reston RESTSTN		07:57												
REST402	Reston Signal EG402		08:03												
BRWCKUT	Berwick-upon-Tweed		08:05½					1 Up							
BELFORD	Belford L.C.		08:14								½				
ALNMOTH	Alnmouth		08:23½					1 Up			2				
MRPTHR	Morpeth		08:37					1 Up							
BENTON	Benton Nth Jn		08:45							1					
HTONSJN	Heaton Sth. Jn.		08:47½												
NWCSTLE	Newcastle	08:50	08:53	08:50	08:53	3:00	T	3 Up							
KEBGSJN	King Edward Bridge S. Jn		08:55												
BRTLYJN	Birtley Jn		08:58½												
DRHM	Durham		09:04					1 Up							
TURSDLJ	Tursdale Jn		09:09												
FYHLSJN	Ferryhill Sth. Jn.		09:10½								1				
DLTN	Darlington		09:18½					JML Up							
NLRTN	Northalerton		09:26						FL						
THIRSK	Thirsk		09:29½						FL						
TOLERTN	Tollerton Jn.		09:35½						FL	1					
SKELTON	Skelton Jn. Yorkshire		09:40½								1				
YORK	York	09:44	09:47	09:44	09:47	3:00	T	3 Up	NNL						
COLTONJ	Colton Jn		09:51½												
HAMBLNJ	Hambleton North Jn		09:55½												
TEMPHJ	Temple Hirst Jn.		09:58½							1					
SHFTHLJ	Shaftesbury Jn		10:04												
DONC	Doncaster	10:08	10:09½	10:08	10:09	1:30	T	3B Down				1			
DONCHJN	Hexthorpe Jn		10:13½								4½		½		
MEXBERGH	Mexborough		10:23								1½				
SWINTN	Swinton (S. Yorks)		10:26								1½				
ALDWIKJ	Aldwarke Jn		10:29												
ROTHJN	Holmes Jn		10:31½									1			
WNCOUN	Wincobank Jn.		10:34½							1	1½				
NNRYMLJ	Nunery Main Line Jn		10:39												
SHEFFLD	Sheffield	10:41	10:51	10:41	10:51	10:00	T	3 Up				1			
DORESNJ	Dore Station Jn		10:55									1			
TAPTONJ	Tapton Jn		11:01½						ML			1			
CHFD	Chesterfield		11:03					2 Up	ML						
CHFDSJ	Chesterfield South Jn		11:03½						ML						
CLAYKNJ	Clay Cross North Jn		11:05									3			
AMBERGJ	Ambergate Jn		11:14½												
DRBYSMS	St Mary's South Junction		11:18½						C	1					
DRBY	Derby	11:22½	11:25	11:23	11:25	2:30	T	3 Down	UTS						
DRBLNLW	L. N.W. Jn. Derby		11:27												
STSNJN	Stenson Jn		11:29½												
NSJDRBY	North Stafford Jn		11:30									1			
CLMLJN	Clay Mills Jn		11:33												
BURTONOT	Burton-on-Trent		11:34½						DTF						
WICHNRJ	Wichnor Jn		11:38½					2 Down							
TMWTHL	Tomworth High Level		11:42½							1					
KINGSBYJ	Kingsbury Jn		11:46												
WTRORTN	Water Orton		11:48½					1 Down	ML		½				
CBOMJN	Castle Bromwich Jn		11:50						ML		1				
LNDRESTJ	Lancaster Street Jn		11:54½												
PROOFHJ	Proof House Jn		11:56						DEL		1				
BHAMNWS	Birmingham New Street	11:59	12:06	11:59	12:06	9:00	T	12 Down							
FIVEWAYS	Five Ways		12:11					2 Down							
SELYOAK	Selly Oak		12:14												
KNORTON	Kings Norton		12:16½						FL						
LONB	Longbridge		12:18½							1					
BGRN	Barn Green		12:21½					2 Down			3				
BRMSGRV	Bromsgrove		12:27½					4 Down							
STKWKSJ	Sloke Works Jn		12:28½												
ABTSWDJ	Abbotswood Jn		12:35½												
ASHCHRC	Ashchurch		12:42					2 Down		1					
CHLTNHM	Chesterham Spa		12:47½					1 Down					1		
BNWDJN	Barnwood Jn		12:53						ML						
HRTNRDJ	Horton Road Jn		12:54												
GLOSTER	Goucester	12:55	13:04	12:55	13:04	9:00	T	1 Down							
AWRE	Awre		13:15½												
LYDNEY	Lydney		13:20½									3			
CHEPSTW	Chepstow		13:30									5			
SEVTNLJ	Sewern Tunnel Junction	13:42½	13:47½	13:43	13:47	5:00	T	1 Down	ML						
LWERWJN	Llanwern West Junction		13:53½						ML	1					
MANDWJ	Maindee West Jn		13:55½						ML						
NWPTRTG	Newport (South Wales)	13:57½	13:59	13:58	13:59	1:30	T	2 Down	ML						
EBBVJ	Ebbw Jn		14:01½						ML						
MSHFLD	Marshfield		14:04						ML	1	3				
LNGDYKJ	Long Dyke Jn		14:12½						D						
CRDFCEN	Cardiff Central	14:14		14:14			TF	3							

Single Train Report															
Train: SX 1V9100/29 SX (292210008) Alliance Rail															
TrainID:	1V91 CC	Train Class:					Train Category:	XX							
SignalID:	1V91	TCC TrainID:					Train UID:								
Bid/Offer Status:	BI	RSID Headcode:	1600				Validity Status:								
TOC Status:		Unit:	16/05/2025				Days Pattern:	SX							
From:	16/12/2024	Origin Time:	10:02				Service Code:	22180008							
Origin Loc:	EDNBUR	Destination Time:	16:40				ODT:	Mondays to Fridays							
Destination Loc:	CRDFCEN	Model Train:	221				Timing Load:	221/-/125/-							
Distance:	435.9mi	Train Length (m):	0				Power Type:	DMU							
Publication Date:		Limiting Speed:					Trailing Load:								
Bank Holidays:		Sleepers:					Catering:	T							
Reservations:	S	Brand:					Ops Char:								
Business Sector:		Accommodation:	B				UIC Number:								
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances				Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	pth	prf	Adj	Arr	Dep
EDNBUR	Edinburgh		10:02		10:02		TB	7 Up	SL						
ABHLJN	Abbeylehill Jn		10:03½			/									
CRGNTYJ	Craigentimney Jn		10:04½			/									
PORTOBL	Portobello Jn (Edinburgh)		10:05½			/						1			
MNKTNHJ	Monktonhall Jn		10:08			/									
PPAN	Prestonpans		10:10			/						½			
DREIMJ	Drem		10:15			/		1 Up							
DUNBAR	Dunbar		10:21½			/									
OXWLCO	Oxwellmains Crossover		10:23			/									
GTHS	Grants house		10:29½			/									
RESTSTN	Resbn RESTSTN		10:33½			/					1				
RES402	Resbn Signal E9402		10:38½			/									
BRWCKUT	Berwick-upon-Tweed		10:41½			/		1 Up				3			
BELFORD	Belford L.C.		10:53			/									
ALNMOTH	Alnmouth		11:02			/		1 Up							
MRPTHR	Morpeth		11:13½			/		1 Up							
BENTON	Benton Nth Jn		11:21½			/					1	1½			
HTONSJN	Heaton Sth. Jn.		11:25½			/									
NWCSTLE	Newcastle	11:28	11:33	11:28	11:33	5:00	T	3 Up				1			
KEBGSJN	King Edward Bridge S. Jn		11:35½			/									
BRTLYJN	Birtley Jn		11:39			/									
DRHM	Durham		11:44½			/		1 Up							
TURSDLJ	Tursdale Jn		11:49½			/									
FYHLSJN	Ferryhill Sth. Jn.		11:51			/						3	1		
DLTN	Darlington		12:02			/		UML Up				3½			
NLRTN	Northallerton		12:13			/			FL			1			
THRSK	Thirsk		12:17½			/			FL						
TOLERTN	Tolerton Jn.		12:23½			/			FL	1					
SKELTON	Skelton Jn. Yorkshire		12:28½			/									
YORK	York	12:31	12:34	12:31	12:34	3:00	T	5 Up	NNL						
COLTONJ	Colton Jn		12:38½			/									
HAMBLNJ	Hambleton North Jn		12:42½			/									
TEMPLHJ	Temple Hirst Jn.		12:45½			/					1	½			
SHFTHLJ	Shatholme Jn		12:51½			/							½		
DONC	Doncaster	12:56	12:58½	12:56	12:58	2:30	T	3B Down					½		
DONCHUN	Hexthorpe Jn		13:02			/									
MEXBGRH	Mexborough		13:06½			/									
SWINTN	Swinton (S.Yorks)		13:08			/							1		
ALDWTRGJ	Aldwarke Jn		13:10½			/									
ROTHUN	Holmes Jn		13:13			/									
WINCOJN	Wincobank Jn.		13:15			/					1		1		
NNRVMLJ	Nunery Main Line Jn		13:19			/									
SHEFFLD	Sheffield	13:21	13:24	13:21	13:24	3:00	T	6 Up							
DORESNJ	Dore Station Jn		13:28			/									
TAPTONJ	Tapton Jn		13:33½			/				ML		½			
CHFD	Chesterfield		13:34½			/		2 Up		ML					
CHFD SJ	Chesterfield South Jn		13:35			/				ML					
CLAYXNJ	Clay Cross North Jn		13:36½			/									
AMBERGJ	Ambergate Jn		13:43			/						½			
DRBYSMS	St.Mary's South Junction		13:48½			/				B	1				
DRBY	Derby	13:51½	13:54½	13:52	13:54	3:00	T	2 Down		DTF					
DRBYLNW	L.N.W. Jn. Derby		13:56			/						1½			
STSNJN	Stenson Jn		14:00			/									
NSJDRBY	North Stafford Jn		14:00½			/									
CLMLJN	Clay Mills Jn		14:02½			/					DTF				
BURTNOT	Burton-on-Trent		14:04			/		2 Down							
WICHNRJ	Wichnor Jn		14:06			/									
TMTWHL	Tamworth High Level		14:12			/					1				
KNGSBYJ	Kingsbury Jn		14:15½			/									
WTRORTN	Water Orton		14:18			/		1 Down		ML					
CBOMJN	Castle Bromwich Jn		14:19			/				ML		2			
LNRSTJ	Landor Street Jn		14:24½			/									
PROOFHJ	Proof House Jn		14:26			/				DEL					
BHAMNWS	Birmingham New Street	14:28	14:40	14:28	14:40	12:00	T	11 Down							
FIVEWYS	Five Ways		14:43			/		2 Down							
SELYOAK	Selly Oak		14:46			/									
KNORTON	Kings Norton		14:48½			/				FL					
LONB	Longbridge		14:50½			/					1				
BGRN	Barrt Green		14:53½			/		2 Down				3			
BRMSGFV	Bromsgrove		14:59½			/		4 Down							
STKWKSJ	Stoke Works Jn		15:00½			/									
ABTSWDJ	Abbtswood Jn		15:07½			/							4		
ASHCHRC	Ashchurch		15:18			/		2 Down			1	4			
CHLTNHM	Cheltenham Spa		15:27½			/		1 Down				2		1	
BNWDJN	Barnwood Jn		15:35			/				ML					
HRTNRDJ	Horton Road Jn		15:36			/									
GLOSTER	Gloucester	15:37	15:38½	15:37	15:38	1:30	T	2 Down							
AWRE	Awre		15:50			/									
LYDNEY	Lydney		15:55			/									
CHEPSTW	Chepstow		16:01½			/									
SEVTNLJ	Severn Tunnel Junction	16:09	16:10½	16:09	16:10	1:30	T	1 Down		ML					
LWERWJN	Llanwrn West Junction		16:16½			/				ML	1				
MAINDWJ	Maindee West Jn		16:19½			/					ML				
NWPTRTG	Newport (South Wales)	16:20½	16:22	16:21	16:22	1:30	T	1 Down		RL					
EBBWJ	Ebbw Jn		16:25½			/					RL				
MSHFLD	Marshfield		16:29½			/					RL	1			
LNGDYKJ	Long Dyke Jn		16:38½			/					D				
CRDFCEN	Cardiff Central	16:40		16:40			TF	3							

Single Train Report																
Train: XX 1V93BBZ18 SZ (202220008) Alliance Rail																
TrainID:	1V93BB	Train Class:	1	Train Category:	XX											
SignalID:	1V93	TOC TrainID:		Train UID:												
Bid/Offer Status:	BI			Validity Status:												
TOC Status:		RSID Headcode:	1560													
From:	16/12/2024	Unit:	16/05/2025	Days Pattern:	SX											
Origin Loc:	EDINBUR	Origin Time:	13:27	Service Code:	22180008											
Destination Loc:	CRDFCEN	Destination Time:	20:09	OCT:	Mondays to Fridays											
Distance:	435.5mi	Model Train:	221	Timing Load:	221/-/125/-											
Publication Date:		Train Length (m):	0	Power Type:	DMU											
		Limiting Speed:		Trailing Load:												
Bank Holidays:		Sleepers:		Catering:	T											
Reservations:	S	Brand:		Ops Char:												
Business Sector:		Accommodation:	B	UIC Number:												
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances				Public Offsets		
		Arr	Dep	Arr	Dep			Plat	Line	Eng	pth	prf	Adj	Arr	Dep	
EDINBUR	Edinburgh		13:27		13:27		TB	1 Up	NL							
ADHLJN	Abbeyhill Jn		13:28½			/										
CRGNTYJ	Craigentiny Jn		13:29½			/										
PORTOBL	Portobello Jn (Edinburgh)		13:30½			/										
MNKTNHJ	Monktonhall Jn		13:32			/										
PPAN	Prestonpans		13:34			/										
DREIMJ	Drem		13:38½			/		1 Up								
DUNBAR	Dunbar		13:45			/										
OXWLCO	Oxwellmains Crossover		13:46½			/										
GTHS	Grantshouse		13:53			/										
RESTSTN	Reston RESTSTN		13:57			/				1						
RES1402	Reston Signal EG402		14:03			/										
BRWCKUT	Berwick-upon-Tweed		14:05			/		1 Up								
BELFORD	Belford L.C.		14:13½			/					1					
ALNMOTH	Alnmouth		14:23½			/		1 Up								
MRPTHRP	Morpeth		14:35			/		1 Up			3					
BENTON	Benton Nth Jn		14:40			/				1						
HTONSJN	Heaton Sth Jn		14:48½			/										
NWCSTLE	Newcastle	14:51	14p53½	14:51	14:53	2:30	T	4 Up								
KEBGSJN	King Edward Bridge S. Jn		14:55½			/										
BRTLYJN	Birtley Jn		14:59			/										
DRHM	Durham		15:04½			/		1 Up								
TURSDLJ	Tursdale Jn		15:09½			/										
FYHLSJN	Ferryhill Sth Jn		15:11			/					1					
DLTN	Darlington		15:19			/		UML Up								
NLRTN	Northallerton		15:26½			/			FL							
THRSK	Thirsk		15:30			/			FL							
TOLERTN	Tollerton Jn		15:36			/			FL	1						
SKELTON	Skelton Jn, Yorkshire		15:41			/										
YORK	York	15p43½	15p45½	15:44	15:45	2:00	T	3 Up	NNL							
COLTONJ	Colton Jn		15:50			/										
HAMBLNJ	Hambleton North Jn		15:54			/										
TEMP.LHJ	Temple Hirst Jn		15:57			/				1						
SHFTHLJ	Shaftholme Jn		16:02½			/						½				
DONC	Doncaster	16:07	16p08½	16:07	16:08	1:30	T	3B Down			3					
DONCHJN	Hexthorpe Jn		16:14½			/					3					
MEXBRGH	Mexborough		16:22			/					1½					
SWINTN	Swinton (S.Yorks)		16:25			/					1½	1				
ALDWRKJ	Aldwarke Jn		16:29			/					½					
ROTHJN	Holmes Jn		16:32			/					2					
WNCQJN	Wincobank Jn		16:36			/				1	3					
NNRMLJ	Nunery Main Line Jn		16:42			/										
SHEFFLD	Sheffield	16:44	16:51	16:44	16:51	7:00	T	6 Up								
DORESNJ	Dore Station Jn		16:55			/										
TAPTONJ	Tapton Jn		17:00½			/			ML		1					
CHFD	Chesterfield		17:02			/		2 Up	ML							
CHFDSJ	Chesterfield South Jn		17:02½			/			ML							
CLAYXNJ	Clay Cross North Jn		17:04			/										
AMBERGJ	Ambergate Jn		17:10½			/										
DRBYSMS	St.Mary's South Junction		17:15½			/			B	1						
DRBY	Derby	17p16½	17:23	17:19	17:23	4:30	T	2A Down	DIF							
DRBYLNW	L.N.W. Jn, Derby		17:24½			/					2					
STSNJN	Stenson Jn		17:29			/										
NSJDRBY	North Stafford Jn		17:29½			/										
CLMLJN	Clay Mills Jn		17:31½			/			DIF		½					
BURTNOT	Burton-on-Trent		17:33½			/		2 Down			2					
WICHNRJ	Wichnor Jn		17:39½			/					2					
TMTWTHL	Tamworth High Level		17:45½			/				1						
KNGSBYJ	Kingsbury Jn		17:49			/										
WTRORTN	Water Orton		17:51½			/		1 Down	ML							
CBOWJN	Castle Bromwich Jn		17:52½			/			ML							
LND.RSTJ	Lander Street Jn		17:58			/										
PROOFHJ	Proof House Jn		17:57½			/			DEL							
BHAMNWS	Birmingham New Street	17p59½	18:06	18:00	18:06	8:30	T	11 Down								
FIVEWAYS	Five Ways		18:11			/		2 Down								
SELYOAK	Selly Oak		18:14			/										
KNORTON	Kings Norton		18:16½			/			FL							
LONB	Longbridge		18:18½			/				1						
BGRN	Barnt Green		18:21½			/		2 Down			3					
BRMSGRV	Bromsgrove		18:27½			/		4 Down								
STKWKSJ	Stoke Works Jn		18:28½			/										
ABTSWDJ	Abbotswood Jn		18:35½			/										
ASHCHRC	Ashchurch		18:42			/		2 Down		1	1					
CHL.TNHM	Cheltenham Spa		18:48½			/		1 Down			2		1			
BNWDJN	Barnwood Jn		18:56			/			ML							
HRTNRDJ	Horton Road Jn		18:57			/										
GLOSTER	Gloucester	18:58	19:00	18:58	19:00	2:00	T	2 Down								
AWRE	Awre		19:11½			/										
LYDNEY	Lydney		19:16½			/										
CHEPSTW	Chepstow		19:23			/					½					
SEV.TNLJ	Severn Tunnel Junction	19:31	19:39	19:31	19:39	8:00	T	1 Down	ML							
LWERWJN	Llanwrn West Junction		19:45			/			ML	1						
MAINDWJ	Maindee West Jn		19:48			/			ML							
NWPTRTG	Newport (South Wales)	19:49	19p50½	19:49	19:50	1:30	T	2 Down	RL							
EBBWJ	Ebbw Jn		19:54			/			RL		½					
MSHFILD	Marshfield		19:56½			/			RL	1						
LNGDYKJ	Long Dyke Jn		20:07½			/			D							
CRDFCEN	Cardiff Central	20:09		20:09			TF	3								

Single Train Report															
Train: XI 1V4100Z10 SX(202210000) Alliance Rail															
TrainID: 1V4100		Train Class: 1		Train Category: XX											
SignalID: 1V41		TOC TrainID:		Train UID:											
Bid/Offer Status: BI				Validity Status:											
TOC Status:		RSID Headcode: 1590													
From: 18/12/2024		Unit: 16/05/2025		Days Pattern: SX											
Origin Loc: EDINBUR		Origin Time: 16:00		Service Code: 22180008											
Destination Loc: CRDFCEN		Destination Time: 22:40		ODT: Mondays to Fridays											
Distance: 435.9mi		Model Train: 221		Timing Load: 221+125+											
Publication Date:		Train Length (m): 0		Power Type: DMU											
		Limiting Speed:		Trailing Load:											
Bank Holidays:		Sleepers:		Catering: T											
Reservations: S		Brand:		Ops Char:											
Business Sector:		Accommodation: B		UIC Number:											
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances				Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	pth	prf	Adj	Arr	Dep
EDINBUR	Edinburgh		16:00		16:00		TD	7 Up	SL						
ABHLJN	Abbeyhill Jn		16:01½												
CRGNTYJ	Craigentinny Jn		16:02½												
PORTOBL	Portobello Jn (Edinburgh)		16:03½												
MNKTNHJ	Monktonhall Jn		16:05												
PPAN	Prestonpans		16:07									1			
DREMJ	Drem		16:12½					1 Up							
DUNBAR	Dunbar		16:19												
OXWLCO	Oxwellmains Crossover		16:20½												
GTHS	Grantshouse		16:27												
RESTSTN	Reston RESTSTN		16:31							1					
REST402	Reston Signal EG402		16:37												
BRWCKUT	Berwick-upon-Tweed		16:39					1 Up							
BELFORD	Belford L.C.		16:47½												
ALNMOTH	Alnmouth		16:56½					1 Up							
MRPTHRP	Morpeth		17:08					1 Up							
BENTON	Benton Nth Jn		17:16							1					
HTONSJN	Heaton Sth. Jn.		17:18½												
NWCSTLE	Newcastle	17:21	17:23	17:21	17:23	2:00	T	2 Up			½				
KEBGSJN	King Edward Bridge S. Jn		17:25												
BRTLYJN	Birtley Jn		17:28½												
DRHM	Durham		17:34					1 Up			1½				
TURSOLJ	Tursdale Jn		17:40½								1				
FYHLSJN	Ferryhill Sth. Jn.		17:43								2½	1			
DLTN	Darlington		17:53½					JML Up			½				
NLRTN	Northalerton		18:01½						FL		½				
THRSK	Thirsk		18:05½						FL						
TOLERTN	Tollereton Jn.		18:11½						FL	1	½				
SKELTON	Skelton Jn. Yorkshire		18:17								2½				
YORK	York	18:22	18:24	18:22	18:24	2:00	T	5 Up	NNL						
COLTONJ	Colton Jn		18:28½												
HAMBLNJ	Hambleton North Jn		18:32½												
TEMPHJ	Temple Hirst Jn.		18:35½												
SHFTHLJ	Shaftholme Jn		18:40							1					
DONC	Doncaster	18:45	18:48	18:45	18:48	3:00	T	3B Down			½		½		
DONCHUN	Hexthorpe Jn		18:52												
MEXBRGH	Mexborough		18:56½												
SWINTN	Swinton (S. Yorks)		18:58										½		
ALDWIKJ	Aldwarke Jn		19:00								2½				
ROTHJUN	Holmes Jn		19:05								2	1			
WNCOLJN	Wincobank Jn.		19:10							1	5				
NNRYMLJ	Nunsey Main Line Jn		19:18								1				
SHEFFLD	Sheffield	19:21	19:24	19:21	19:24	3:00	T	8 Up					½		
DORESNJ	Dore Station Jn		19:28½										½		
TAPTONJ	Tapton Jn		19:34½							ML					
CHFD	Chesterfield		19:35					2 Up		ML					
CHFDSJ	Chesterfield South Jn		19:35½							ML					
CLAYXNJ	Clay Cross North Jn		19:37												
AMBERGJ	Ambergate Jn		19:43½												
DRBYSMS	St Mary's South Junction		19:48½							B	1				
DRBY	Derby	19:51½	19:53½	19:52	19:53	2:00	T	2 Down	DTF						
DRBYLNW	L.N.W. Jn. Derby		19:55												
STSNJN	Stenson Jn		19:57½												
NSJDRBY	North Stafford Jn		19:58												
CLMLJN	Clay Mills Jn		20:00							DTF					
BURTONOT	Burton-on-Trent		20:01½					2 Down							
WICHNRJ	Wichnor Jn		20:05½								1				
TMWTHL	Tamworth High Level		20:10½								1	2			
KNGSBYJ	Kingsbury Jn		20:16												
WTRORTN	Water Orton		20:18½					1 Down		ML					
CBOMJN	Castle Bromwich Jn		20:19½							ML		½			
LNDRSTJ	Landor Street Jn		20:23½												
PROOFHJ	Proof House Jn		20:25							DEL					
BHAMNWS	Birmingham New Street	20:27	20:40	20:27	20:40	13:00	T	11 Down							
FVEWYS	Five Ways		20:43					2 Down							
SELYOAK	Selly Oak		20:46												
KNORTON	Kings Norton		20:48½							FL		2			
LONB	Longbridge		20:52½								1	2½			
BGRN	Barnt Green		20:58					2 Down				3			
BRMSGRV	Bromsgrove		21:04					4 Down							
STKWKGSJ	Stoke Works Jn		21:05												
ABTSWDJ	Abbotswood Jn		21:12									½			
ASHCHRC	Ashchurch		21:19					2 Down			1	2			
CHLTNHM	Cheltenham Spa		21:26½					1 Down				1		1	
BNWDJN	Barnwood Jn		21:33							ML					
HRTNRDJ	Horton Road Jn		21:34												
GLOSTER	Gloucester	21:35	21:36½	21:35	21:36	1:30	T	2 Down							
AWRE	Awre		21:48												
LYDNEY	Lydney		21:53												
CHEPSTW	Chepstow		21:59½									1			
SEVTNLJ	Severn Tunnel Junction	22:08	22:09½	22:08	22:09	1:30	T	1 Down		ML					
LWERWJN	Llanwrn West Junction		22:15½							ML		1			
MAINDWJ	Maindee West Jn		22:18½							ML		1			
NWPTRTG	Newport (South Wales)	22:22	22:22	22:21	22:22	1:30	T	1 Down		RL					
EBBWJ	Ebbw Jn		22:25½							RL					
MSHFILD	Marshfield		22:29½							RL	1				
LNGDYKJ	Long Dyke Jn		22:38½							E					
CRDFCEN	Cardiff Central	22:40		22:40			TF	4B							

Single Train Report															
Train: XI 1V67B8/ZB SX(2822180008) Alliance Rail															
TrainID: 1V67BB		Train Class: 1		Train Category: XX											
SignalID: 1V67		TOC TrainID:		Train UID:											
Bid/Offer Status: BI				Validity Status:											
TOC Status:		RSID Headcode: 1560													
From: 15/12/2024		Unit: 16/05/2025		Days Pattern: SX											
Origin Loc: EDINBUR		Origin Time: 17:27		Service Code: 22180008											
Destination Loc: CRDFCEN		Destination Time: 00:09		ODT: Mondays to Fridays											
Distance: 435.9m		Model Train: 221		Timing Load: 221-1125/-											
Publication Date:		Train Length (m): 0		Power Type: DMU											
		Limiting Speed:		Trailing Load:											
Bank Holidays:		Sleepers:		Catering: T											
Reservations: S		Brand:		Ops Char:											
Business Sector:		Accommodation: B		UIC Number:											
Location	Location Name	Working Times		Public Times		Dwell	Activity	Line		Allowances				Public Offsets	
		Arr	Dep	Arr	Dep			Plat	Line	Eng	ph	prf	Adj	Arr	Dep
EDINBUR	Edinburgh		17:27		17:27		TB	7 Up	SL						
ABHLJN	Abbeville Jn		17:28½			/									
CRGNTYJ	Craigentinny Jn		17:29½			/									
PORTOBL	Portobello Jn (Edinburgh)		17:30½			/									
MNKINTHJ	Monkintail Jn		17:32			/									
PPAN	Prestonpans		17:34			/						1			
DREMU	Drem		17:39½			/		1 Up							
DUNBAR	Dunbar		17:46			/									
OXWLCO	Oxwellmains Crossover		17:47½			/									
GTHS	Grantshouse		17:54			/									
RESTSTN	Reston RESTSTN		17:58			/				1					
REST402	Reston Signal EG402		18:04			/									
BRWCKUT	Benwick-upon-Tweed		18:06			/		1 Up							
BELFORD	Belford L.C.		18:14½			/									
ALNMOTH	Alnmouth		18:23½			/		1 Up				1			
MRPTHRP	Morpeth		18:36			/		1 Up				2			
BENTON	Benton Nth Jn		18:46			/				1					
HTONSJN	Heaton Sth. Jn.		18:48½			/									
NWCSTLE	Newcastle	18:51	18p53½	18:51	18:53	2:30	T	2 Up							
KEBGSJN	King Edward Bridge S. Jn		18:55½			/									
BRTLYJN	Birtley Jn		18:59			/									
DRHM	Durham		19:04½			/		1 Up							
TURSDLJ	Tursdale Jn		19:09½			/									
FYHLSJN	Ferryhill Sth. Jn.		19:11			/						1			
DLTN	Darlington		19:19			/		JML Up							
NLRTN	Northalerton		19:26½			/			FL						
THRSK	Thirsk		19:30			/			FL						
TOLERTN	Tollerden Jn.		19:36			/			FL	1					
SKELTON	Skelton Jn. Yorkshire		19:41			/						½			
YORK	York	19:44	19:46	19:44	19:46	2:00	T	3 Up	NNL						
COLTONJ	Colton Jn		19:50½			/									
HAMBLNJ	Hambleton North Jn		19:54½			/									
TEMPLHJ	Temple Hirst Jn.		19:57½			/				1					
SHFTHLJ	Shaftholme Jn		20:03			/							½		
DONC	Doncaster	20a07%	20:09	20:08	20:09	1:30	T	8 Down							
DONCHUN	Hexthorpe Jn		20:12			/						1			
MEXBRGH	Mexborough		20:17½			/									
SWNTN	Swinton (S. Yorks)		20:19			/						1			
ALDWRKJ	Aldwarke Jn		20:21½			/						4			
ROTHJUN	Holmes Jn		20:28			/							1		
WNCQJN	Wincobank Jn.		20:31			/				1		4			
NNRMLJ	Nunsey Main Line Jn		20:38			/							1½		
SHEFFLD	Sheffield	20a41%	20:50	20:42	20:50	8:30	T	8 Up							
DORFENJ	Dore Station Jn		20:54			/						1			
TAPTONJ	Tapton Jn		21:00½			/			ML			1			
CHFD	Chesterfield		21:02			/		2 Up	ML			1			
CHFD SJ	Chesterfield South Jn		21:03½			/			ML						
CLAYXNJ	Clay Cross North Jn		21:05			/									
AMBERGJ	Ambergate Jn		21:11½			/							1½		
DRBYSMS	St Mary's South Junction		21:18			/			B	1					
DRBY	Derby	21:21	21:23	21:21	21:23	2:00	T	2A Down	DTF						
DRBYLNW	L.N.W. Jn. Derby		21:24½			/						2			
STSNJN	Stenson Jn		21:29			/									
NSJDRBY	North Stafford Jn		21:29½			/							1½		
CLMLJN	Clay Mills Jn		21:33			/			DTF				½		
BURTNOT	Burton-on-Trent		21:35			/							3		
WICHNRJ	Wichnor Jn		21:42			/		2 Down					1		
TMWTHHL	Tarnworth High Level		21:47			/				1			1½		
KINGSBYJ	Kingsbury Jn		21:52			/							1		
WTRORTN	Water Orton		21:53½			/		1 Down	ML				1		
CBOMJN	Castle Bromwich Jn		21:57½			/			ML						
LNDRSTJ	Landor Street Jn		22:01			/									
PROOFHJ	Proof House Jn		22:02½			/									
BHAMINWS	Birmingham New Street	22a04%	22:08	22:05	22:08	3:30	T	11 Down							
FIVEWYS	Five Ways		22:11			/		2 Down							
SELYCAK	Selly Oak		22:14			/									
KNORTON	Kings Norton		22:16½			/			FL						
LONB	Longbridge		22:18½			/				1					
BGRN	Barnt Green		22:21½			/		2 Down				3			
BRMSGRV	Bromsgrove		22:27½			/		4 Down							
STKWKSJ	Stoke Works Jn		22:28½			/									
ABTSWDJ	Abbotswood Jn		22:35½			/									
ASHCHRC	Ashchurch		22:42			/		2 Down		1		1			
CHLTNHM	Cheltenham Spa		22:48½			/		1 Down					1		
BNWDJN	Barrow Jn		22:55			/			ML				1		
HRTNRDJ	Horton Road Jn		22:57			/									
GLOSTER	Gloucester	22:58	23:00	22:58	23:00	2:00	T	2 Down							
AWRE	Awre		23:11½			/						2			
LYDNEY	Lydney		23:16½			/									
CHEPSTW	Chepstow		23:25			/									
SEVTLNJ	Severn Tunnel Junction	23a32½	23:34	23:33	23:34	1:30	T	1 Down	RL						
LWERWJN	Llanwrern West Junction		23:45			/			RL						
MAINDWJ	Mandee West Jn		23:48			/			RL						
NWPTRTG	Newport (South Wales)	23a46½	23:51	23:50	23:51	1:30	T	1 Down	RL						
EBBWJ	Ebbw Jn		23:54½			/			RL						
MSHFLD	Marshfield		23:58½			/			RL	1					
LNGDYKJ	Long Dyke Jn		00:07½			/			D						
CRDFCEN	Cardiff Central	00:09		24:09			TF	3							

G.02 Engineering Access Statement

GW900 PILNING TO FISHGUARD HARBOUR - continued

SECTION		Periods A and B 10.12.2023 to 11.02.2024	Period C 12.02.2024 to 24.03.2024	Period D 25.03.2024 to 01.06.2024	Periods E to G 02.06.2024 to 08.09.2024	Periods H and J 09.09.2024 to 14.12.2024	REMARKS
Ebbw Jn to Long Dyke 900.6	WEEK END	2220 Sat to 1000 Sun Mains or Reliefs BLOCKED -and- 0105 Sun to 0735 Sun All BLOCKED					Times may be reduced in weeks GWR are diverting via Gloucester, Bath or Newbury. RLs can be blocked vice MLs for same times Sat/Sun if declared and agreed in DPPP / CPPP. Trains to be timed over the RLs with RL SRTs when MLs blocked. Blocks will be withdrawn for major events in Cardiff to enable additional services to run.
	SUN/ MON	0001 Mon to 0500 Mon Mains BLOCKED					RLs can be blocked vice MLs Sat/Sun if declared and agreed in DPPP / CPPP
	MID WEEK	2215 Mon-Thu to 0550 Tue-Fri Mains BLOCKED (Except: Mains or Reliefs: details as shown in Section 5)					RLs can be blocked vice MLs Sat/Sun if declared and agreed in DPPP / CPPP I.M. trains which may be affected by this section 4: UTU060A, UTU060B, UTU112

GW900 PILNING TO FISHGUARD HARBOUR - continued

SECTION		Periods A and B 10.12.2023 to 11.02.2024	Period C 12.02.2024 to 24.03.2024	Period D 25.03.2024 to 01.06.2024	Periods E to G 02.06.2024 to 08.09.2024	Periods H and J 09.09.2024 to 14.12.2024	REMARKS
Maindee West Jn to Ebbw Jn (Newport Station Area) 900.5	WEEK END	2225 Sat to 1000 Sun Mains (excluding Platform 2) or Reliefs BLOCKED -and- 0020 Sun to 0745 Sun All BLOCKED		2225 Sat to 0900 Sun Mains (excluding Platform 2) BLOCKED -and- 0020 Sun to 0745 Sun All BLOCKED		Period H 2225 Sat to 0900 Sun Mains (excluding Platform 2) BLOCKED -and- 0020 Sun to 0745 Sun All BLOCKED Period J 2225 Sat to 1000 Sun Mains or Reliefs (excluding Platform 2) BLOCKED -and- 0020 Sun to 0745 Sun All BLOCKED	Times may be reduced in weeks GWR are diverting via Gloucester, Bath or Newbury. RLs can be blocked vice MLs for same times Sat/Sun if declared and agreed in DPPP / CPPP. ML side patrolling required until 1000 Sun during GMT. Trains to / from the Hereford Line not affected unless specified in Section 7. Trains to be timed over the RLs with RL SRTs when MLs blocked. Blocks will be withdrawn for major events in Cardiff to enable additional services to run.
	SUN/ MON	0001 Mon to 0500 Mon Mains (excluding Platform 2) BLOCKED					Trains to be timed over the RLs with RL SRTs when MLs blocked.
	MID WEEK	2225 Mon-Thu to 0510 Tue-Fri Mains (excluding Platform 2) BLOCKED (Except: Mains or Reliefs: details as shown in Section 5)					Trains to be timed over the RLs with RL SRTs when MLs blocked. I.M. trains which may be affected by this section 4: TRV558, UTU060A, UTU060B, UTU112, UTU169

GW900 PILNING TO FISHGUARD HARBOUR - continued

SECTION		Periods A and B 10.12.2023 to 11.02.2024	Period C 12.02.2024 to 24.03.2024	Period D 25.03.2024 to 01.06.2024	Periods E to G 02.06.2024 to 08.09.2024	Periods H and J 09.09.2024 to 14.12.2024	REMARKS	
Maindee East Jn to Maindee West Jn 900.4	WEEK END	2225 Sat to 1000 Sun Mains or Reliefs BLOCKED -and- 0010 Sun to 0750 Sun All BLOCKED			2225 Sat to 0900 Sun Mains or Reliefs BLOCKED -and- 0010 Sun to 0750 Sun All BLOCKED		<p>Period H 2225 Sat to 0900 Sun Mains or Reliefs BLOCKED -and- 0010 Sun to 0750 Sun All BLOCKED</p> <p>Period J 2225 Sat to 1000 Sun Mains or Reliefs BLOCKED -and- 0010 Sun to 0750 Sun All BLOCKED</p> <p>Times may be reduced in weeks GWR are diverting via Gloucester, Bath or Newbury.</p> <p>RLs can be blocked vice MLs for same times Sat/Sun if declared and agreed in DPPP / CPPP.</p> <p>ML side patrolling required until 1000 Sun during GMT. Trains to / from the Hereford Line not affected unless specified in Section 7.</p> <p>Trains to be timed over the RLs with RL SRTs when MLs blocked</p>	
	SUN/ MON	0001 Mon to 0500 Mon Mains BLOCKED						Trains to be timed over the RLs with RL SRTs when MLs blocked.
	MID WEEK	2215 Mon-Thu to 0605 Tue-Fri Mains BLOCKED (Except: Mains or Reliefs: details as shown in Section 5)						<p>Trains to be timed over the RLs with RL SRTs when MLs blocked.</p> <p>I.M. trains which may be affected by this section 4: TRV558, UTU060A, UTU060B</p>

GW900 PILNING TO FISHGUARD HARBOUR - continued

SECTION		Periods A and B 10.12.2023 to 11.02.2024	Period C 12.02.2024 to 24.03.2024	Period D 25.03.2024 to 01.06.2024	Periods E to G 02.06.2024 to 08.09.2024	Periods H and J 09.09.2024 to 14.12.2024	REMARKS
Llanwern Works West Connection to Maindee East Jn 900.3	WEEK END	2235 Sat to 1000 Sun Mains BLOCKED -or- Reliefs BLOCKED 2235 Sat to 0800 Sun -and- 0010 Sun to 0750 Sun All BLOCKED		2235 Sat to 0900 Sun Mains BLOCKED -or- Reliefs BLOCKED 2235 Sat to 0800 Sun -and- 0010 Sun to 0750 Sun All BLOCKED		Period H 2235 Sat to 0900 Sun Mains BLOCKED -or- Reliefs BLOCKED 2235 Sat to 0800 Sun -and- 0010 Sun to 0750 Sun All BLOCKED Period J 2235 Sat to 1000 Sun Mains BLOCKED -or- Reliefs BLOCKED 2235 Sat to 0800 Sun -and- 0010 Sun to 0750 Sun All BLOCKED	Times may be reduced in weeks GWR are diverting via Gloucester, Bath or Newbury. RLs can be blocked vice MLs Sat/Sun if declared and agreed in DPPP / CPPP ML side patrolling required until 1000 Sun during GMT. Trains to / from the Hereford Line not affected unless specified in Section 7. Trains to be timed over the RLs with RL SRTs when MLs blocked.
	SUN/ MON	0001 Mon to 0500 Mon Mains BLOCKED					Trains to be timed over the RLs with RL SRTs when MLs blocked.
	MID WEEK	2215 Mon-Thu to 0605 Tue-Fri Mains BLOCKED (Except: Mains or Reliefs: details as shown in Section 5)					Trains to be timed over the RLs with RL SRTs when MLs blocked. I.M. trains which may be affected by this section 4: UTU060A, UTU060B

GW900 PILNING TO FISHGUARD HARBOUR - continued

SECTION		Periods A and B 10.12.2023 to 11.02.2024	Period C 12.02.2024 to 24.03.2024	Period D 25.03.2024 to 01.06.2024	Periods E to G 02.06.2024 to 08.09.2024	Periods H and J 09.09.2024 to 14.12.2024	REMARKS
Severn Tunnel Jn to Llanwern Works West Connection 900.2	WEEK END	2235 Sat to 1000 Sun Mains BLOCKED -or- 2235 Sat to 0845 Sun Reliefs BLOCKED -and- 0010 Sun to 0835 Sun All BLOCKED			2235 Sat to 0900 Sun Mains BLOCKED -or- 2235 Sat to 0845 Sun Reliefs BLOCKED -and- 0010 Sun to 0835 Sun All BLOCKED		<p>Period H</p> <p>2235 Sat to 0900 Sun Mains BLOCKED -or- 2235 Sat to 0845 Sun Reliefs BLOCKED -and- 0010 Sun to 0835 Sun All BLOCKED</p> <p>Period J</p> <p>2235 Sat to 1000 Sun Mains BLOCKED -or- 2235 Sat to 0835 Sun Reliefs BLOCKED -and- 0010 Sun to 0835 Sun All BLOCKED</p> <p>Times may be reduced in weeks GWR are diverting via Gloucester, Bath or Newbury.</p> <p>RLs can be blocked vice MLs Sat/Sun if declared and agreed in DPPP / CPPP</p> <p>ML side patrolling required until 1000 Sun during GMT. Trains to / from the Hereford Line not affected unless specified in Section 7.</p> <p>Trains to be timed over the RLs with RL SRTs when MLs blocked.</p>
	SUN/ MON	0001 Mon to 0500 Mon Mains BLOCKED					Trains to be timed over the RLs with RL SRTs when MLs blocked.
	MID WEEK	2215 Mon-Thu to 0605 Tue-Fri Mains BLOCKED <i>(Except: Mains or Reliefs: details as shown in Section 5)</i>					Trains to be timed over the RLs with RL SRTs when MLs blocked.
							I.M. trains which may be affected by this section 4: UTU060A, UTU060B

G.03 List of changes to other schedules

1S87 05:30 from Cardiff:

Amended service	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
4S69LA 4S69LD	GB Railfreight	SX	06:06 06:35	Doncaster Iport Tees Dock	16:25 06:35	Elderslie GB Railfreight	Added 1m to Tyne Yard stop, added (1) at Newcastle, (1.5) at Heaton South Junction for headway, reduced Chevington Loop dwell by 3.5m. Extended A-stop at Berwick loop by 7.5 a half minutes for headway with 1S81BB. Not able to get it back to booked by Millerhill C-stop, ESG scope doesn't include beyond.	ECML ESG
0M00EA	DB cargo	TO	06:50	Blackwell loop	08:04	Bescot Yard	Aligned to the MSX path departing 04:06.	ECML ESG
2B07LD	Northern	EWD	08:20	Leeds	09:04	Doncaster	Added (1) approaching Doncaster for margin with 1S87 departing P8.	ECML ESG
2P09GG	West Midlands	SX	07:03	Bromsgrove	08:17	Lichfield Trent Valley HL	Retimed to depart 1m earlier to give 3m margin for headway at Barnt Green, added 1m dwell (1.5m-->2.5m) at Longbridge to give 3m margin for platform reoccupation at Kings Norton and arrives as booked.	JUNE 24
3Q02SB	Test Train	THO	23:42	Tyseley LMD	08:17	Derby R.T.C.	Reduced stop Op stop at Melbourne Junction by 8 minutes (36.5-->28.5) and added back at Chaddesden Curve, for headway with retimed 1D52.	ECML ESG
4E79GB	GB Railfreight	SX	07:26	Ratcliffe	09:23	Doncaster	Consequential retime between Alfreton-Masborough for retimed 6E79, back to booked by Masborough	ECML ESG

4N47QJ	QJ - Strategic Capacity	SX	09:04	Milford Down Sidings	11:28	Tyne Coal Terminal	Retimed to depart 3m earlier at 09:01, and moved over to platform 3 at Church Fenton & LSL from there, to make parallel with 1S87 and avoid junction margin conflict at Colton Junction.	ECML ESG
4S26LA	GB Railfreight	SX	08:09	Drax	16:57	Hunterston	Extended A-stop at Milford Junction by 3m (15-->18) consequential headway with retimed 4N47QJ. Removed (3) at Church Fenton and back to booked.	ECML ESG
4S30LA	Freightliner Intermodal	SX	07:19	Tees Dock	13:58	Coatbridge	Extended A-stop in Berwick Loop by 4 minutes (15-->19) and removed from C-stop at Millerhill S.S., for headway with 1S87 at Berwick. Back to booked departing Millerhill.	ECML ESG
6E79GT	DB Cargo	MO	01:50	Cardiff Tidal T.C.	08:35	Masborough FD	Reduced A-stop at Burton-on-Trent from 63m to 6m to get avoid headway conflict with 1S87 between Derby and Chesterfield. A-stop added at Broadholme instead (42.5m) and arrives Masborough 13.5m earlier.	ECML ESG
6H12GB	GB Railfreight	SX	06:24	Tyne Coal Terminal	10:17	Drax	Reduced A-stop at Skelton Junction by 9.5 minutes (17.5-->8m) for junction margin with 1S87 at Colton Junction. Added back pathing approaching Church Fenton and Milford to get back to booked.	ECML ESG
6M29PD	DB Cargo	TWThO	04:46	Cardiff Tidal T.C.	08:35:30	Kingsbury Reception SDGs	Removed 4m dwell at Lydney to give 4m margin for Headway at Gloucester, added (4.5) at Abbotswood Junction, removed (0.5) at Kings Norton and arrives as booked Inserted Tiploc (Spetchley loop: Up Spetchley Goods Loop 552 meters) between Abbotswood jn and Stoke Works Junction for 3.5m dwell (A stop)to avoid clash, removed (4.5) at Abbotswood Junction and (2.5) at Kings Norton and arrives as booked	JUNE 24

6M60EF 6M60FA	DB cargo	FO	02:50	Exeter Riverside N.Y	10:09 08:51	Bescot Yard Cliffe Vale	Added 3.5m dwell at Bromsgrove (BL stop: 28.5m-->32m) to give 3m margin for headway at Bromsgrove, removed (2) at Bromsgrove, (1) at Barnt Green, removed (0.5) at Longbridge and arrives as booked	JUNE 24
6M71FB 6M72FA	GB Railfreight	SX WO	08:50	Doncaster Down Decoy	13:46 12:26	Shap Harrisons Tuebrook	Retimed to depart 4mins later for headway with 1S87 approaching Doncaster. Reduced pathing at Doncaster from 5m-->1m and back to booked.	ECML ESG
6M90FC	GB Railfreight	MSX	05:06	Avounmouth Hanson SDG	12:53	Clitheroe Castle	Extended C-stop at Landor Street by 3.5m (10m-->13.5) and removed from Rycroft Junction A-stop and back to booked. For headway.	ECML ESG
9M08TP	TransPennine Express	SX	08:01	Newcastle	10:59	Liverpool lime street	Added (0.5) approaching Skelton Junction, consequential for headway with retimed 6H12, reduced York dwell by 0.5 and back to booked.	ECML ESG
9E07GT	TransPennine Express	SX	07:24	Liverpool Lime Street	10:24	Newcastle	Departs York 3 minutes later for headway with 1S87. Arrives 3 later.	ECML ESG

1S81 07:08 from Cardiff

Amended service	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
ON32BA	Freightliner HH	SX	09:24	Leeds Balm Road	12:27	Tyne S.S.	Extended dwell at Darlington Down Loop for headway with 1S81, due to clash with 4S79 joining from Dinsdale, departs Darlington Loop at 12:14 instead of 11:53. Pathed out between 4S79, arrives Tyne S.S. at 12:56 (was 12:27). 1 minute margin non-compliance with 4S79 entering Durham Loop, if resolved, causes junction margin with 1W11 following ON32 new path at Birtley Junction.	ECML ESG
1J43AG	Northern	SX	08:34	Bridlington	10:47	Sheffield	Added (0.5) at Wincobank, consequential for retimed 1L48, 1L45, and added (0.5) approaching Sheffield to arrive on a full minute, 1 m later.	ECML ESG
1L45LT	Northern	EWD	09:36	Leeds	12:01	Lincoln	Added (1.5) at Wincobank Junction, consequential for headway with 1L48 to Sheffield. Removed (0.5) at Nunnery Main Line Junction after departing Sheffield and (0.5) at Darnall. Arrives 1 minute later. Needs to be split SX SO	ECML ESG
1L48GZ	Northern	EWD	09:17	Lincoln	11:43	Leeds	Added (0.5) at Woodburn jn and (1) at Nunnery Main Line Junction for platform end margin with 1S81 departing P5, removed from dwell and back to booked. Needs to be split to SX and SO	ECML ESG
1S37XC	Cross country	SX	05:25	Plymouth	14:12	Edinburgh	Retimed between Newcastle-Edinburgh as follows: extended Morpeth and Berwick stops by 1 minute, added (0.5) at Alnmouth, removed 1.5 from A-stop approaching Edinburgh, consequential to freight conflicts. Arrives 2 later.	ECML ESG

4E84GA	Seaforth C.T (GBFR)	SX	05:14	Doncaster Iport GB Railfreight	11:38	Doncaster Iport GB Railfreight	Added (0.5) and extened A-Stop by 6.5 minutes at Masborough Junction, removed (1) at Aldwarke Junction, removed (1) and decreased dwell by 4 minutes at St. James Junction,	ECML ESG
4Y02QJ	QJ - Strategic Capacity	SX	12:07	Tyne S.S.	14:33	Millerhill SS	start 2m later, added (0.5) to Tyne SS, finish 2.5 m later, for headway. Added (0.5) approaching Benton North for headway, removed from Grantshouse stop and back to booked, for headway	ECML ESG
9E09GT	TransPennine Express	SX	09:24	Liverpool Lime Street	12:27	Newcastle	Retimed to depart 3 minutes later from York, for headway with 1s81. Arrives 3 later.	ECML ESG
1M25FX	Cross country	SX	08:00	Bristol Temple Meads	10:59	Manchester Piccadilly	Added (2) at Longbridge for headway at Kings Norton. Removed (2) at Five Ways and arrives as booked	JUNE 24
1S10LN	LNER	SX	09:30	London King's Cross	13:35	Edinburgh	Removed (0.5) from King Edward Bridge South Junction, added (0.5) to Heaton South Junction, for headway	ECML ESG
1V05DA	Cross country	SX	08:08	Nottingham	11:25	Cardiff Central	Added 1 minute arriving to New Street and removed from dwell, for junction margin with 1S81	JUNE 24
2B11LD	Northern	SX	10:20	Leeds	11:02	Doncaster	Added (1) approaching Doncaster for margin with 1S81 departing, arrives 1 later	ECML ESG
3S31DG	Colas	FSX	22:01	Swindon Transfer	11:06	Cheltenham Lansdown loop	Added (0.5) at Skoke Works Junction and removed (0.5) at Bromsgrove for headway with 1S81EX at Bromsgrove	JUNE 24
4E04GA	GB Railfreight	SX	11:07	Mossend PD Stirling GB Railfreight	19:35	Doncaster Iport GB Railfreight	Added 2.5m dwell at Millerhill S.S. (A stop: 21m-->23.5m) to give 3m margin for junction margin at Monktonhall Junction. Removed 2.5m dwell at Grantshouse (A stop: 16m-->13.5m) and arrives as booked	ECML ESG

5H06EX	CrossCountry	SX	09:22	Birmingham New Street	09:39	Tyseley LMD	Retimed to depart 2 minutes later for headway with 1S81, removed (2) at Croft and back to booked.	JUNE 24
5H57DD	West Midlands Trains	SX	09:19	Birmingham New Street	09:35	Tyseley LMD	Departs 1 minute earlier for headway with 1S81, added (1) At Grand Junction and back to booked.	JUNE 24
6M16GA 6M16GB	DB cargo	MSX MO	05:40 10:01	Wilton EFW Terminal Tees N.Y.	15:15	Knowsley Freight Terminal	Diverted via York Yard and stops at York Yard south jn for 20m. Removed stop at Milford Junction and replaced with pathing and back to booked by Milford Junction. For Junction margin at Colton Junction	ECML ESG
6M31EG	GB Railfreight	MWThO	02:15	Bow Depot GB Railfreight	10:12	Burton West Yard GB Railfreight	Added 6m dwell at Kingsbury Junction (A stop: 9.5m-->15.5m), arrives 6m later than booked time (10:06-->10:12) to resolve junction margin with 1D55 at Kingsbury	JUNE 24
6G84EA	GB Railfreight	FSX	07:10	Kineton MOD GB Railfreight	12:57	Donnington RFT GB Railfreight	Added 1m dwell at Landor Street Junction to give 2m margin to 1L34HX for Junction Margin, removed (0.5) at Castle Bromwich Junction and at Park Lane Junction, and arrives as booked	JUNE 24
6G84EA	GB Railfreight	FSX	07:24	Kineton MOD GB Railfreight	13:18	Donnington RFT GB Railfreight	Retimed to depart Landor Street 2 minutes later, removed from stop at Castle Bromwich - consequential for retimed 1L34	ECML ESG
6S49LA	GB Railfreight	SX	10:33	Tyne S.S.	16:25	Millerhill SS	Added 4m to dwell at Wooden gate Junction, removed 1.5m dwell from Crag Mill Loop, added 5.5m dwell at Berwick-upon-Tweed, reduced dwell by 3m at Drem D.P.L	ECML ESG

4S69LA 4S69LD	GB Railfreight	SX	06:06 06:36	Doncaster Iport GB Railfreight Tees Dock GB Railfreight	16:25 16:07	Elderslie GB Railfreight	Added 1m to Tyne Yard stop, added (1) at Newcastle, (1.5) at Heaton South Junction for headway, reduced Chevington Loop dwell by 3.5m. Extended A-stop at Berwick loop by 7.5m for headway with 1S81BB. Not able to get it back to booked by Millerhill C-stop, ESG scope doesn't include beyond.	ECML ESG
2N07JS	Transport for Wales	SX	06:07	Cardiff Central	08:05	Ebbw Vale	Changed departure time from Cardiff 3m early (3m dwell) removed (0.5) pathing and added in (3.5) at Ebbw jn to total of (5.5), back to booked.	Wales ESG
2G50JS	Transport for Wales	SX	07:11	Cardiff Central	08:26:30	Cheltenham Spa	Added (0.5) at Newport, extended dwell by 3m at Gloucester (to 5), arrives Cheltenham 3m later.	Wales ESG
2C08DA	Great Western	SX	08:11	Gloucester	10:16	Frome	Departs 1m earlier at 08:10, and added in (1) at Gloucester Yard Junction	Wales ESG
2E50DA	Great Western	SX	07:10	Bristol Temple meads	08:00	Gloucester	Removing (0.5), a headway clash appears at Standish Junction with 6M21EG and 2E50DA	Wales ESG
1L66DA	Great Western	SX	07:25	Worcester Shrub Hill	10:00	London Paddington	Departs 1m earlier from Gloucester, added (1) back at Standish Jn and back to booked.	Wales ESG
1G03DA	Great Western	SX	06:31	London Paddington	08:33	Cheltenham Spa	Removed (1) at Gloucester Yard Junction and added {0.5}, added 1m to dwell time at Gloucester and back to booked	Wales ESG

1S85 09:07 from Cardiff

Amended service	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
6S49LA	GB Railfreight	SX	10:33	Tyne S.S.	16:25	Millerhill SS	Added 4m to dwell at Wooden gate Junction, removed 1.5m dwell from Crag Mill Loop, added 5.5m dwell at Berwick-upon-Tweed, reduced dwell by 3m at Drem D.P.L	ECML ESG
1F11DA	Great Western	SX	09:24	Cardiff	12:55	Portsmouth	Added (0.5) approaching Ebbw Junction, removed 0.5 from stop at Newport and back to booked. Consequential for 1S85, 1L12, 1W92	Wales ESG
1S14LN	LNER	SX	11:30	London King's Cross	15:35	Edinburgh	changed platform 2 to 3 at Newcastle	ECML ESG
9E11GT	Transpennine Express	SX	11:24	Liverpool Lime Street	14:23	Newcastle	Retimed to depart York 3m later for headway with 1S89, added (1) at Tollerton for headway. Arrives 4m later.	ECML ESG
1L34HX	Cross country	SX	09:22	Birmingham New Street	12:40	Stansted Airport	Departs 1m later to achieve headway with 1S81 removed (1) at Croft and back to booked.	ECML ESG
1L12DA	Great Western	FSX	07:16	Carmarthen	11:12	Paddington	Moved [1] from Cardiff to Pontyclun, added (1) at Leckwith Loop. Arrives Cardiff 1 minute later, extended dwell by 2m to depart at 09:19, for headway with 1S85. Removed (0.5) at Marshfield and Maindee Wet, removed (1) at Pilning and back to booked.	Wales ESG
1M33FX	Cross country	SX	10:00	Bristol temple meads	12:59	Manchester Piccadilly	Added (2) to Barnt Green for headway, removed 2m dwell from Birmingham New Street, back to time	JUNE 24
6M50FD	DRS	MSX	14:54	Torness power station	19:46	Carlsile Kingmoor sdg(DRS)	Retimed the RM move by 10 minutes to follow 1S85. Removed time from OP-stop at Millerhill Signal (minimum required is 2 minutes) and back to booked.	ECML ESG

1W92JW	Transport for Wales	SX	09:24	Cardiff Central	13:55	Holyhead	Changed Cardiff platform from 0 to 2, added (0.5) approaching Newport, removed (0.5) at Maindee North Junction. Consequential for 1S85, 1L12.	Wales ESG
5F11DA	Transport for Wales	SX	08:55	Cardiff Central	09:18	Cardiff Central	Changed Cardiff platform from 1 to 2	Wales ESG
5W92DB	Transport for Wales	SX	09:10	Canton C.S.D.	09:15	Cardiff Central	Changed Cardiff platform from 2 to 0.	Wales ESG
1B29AG	Northern	EWD	13:23	York	16:04	Blackpool	Moved to P6 at York to avoid platform clash at York.	ECML ESG
1B24AG	Northern	EWD	10:19	Blackpool	12:59	York	Moved to P6 at York to avoid platform clash at York. Consequential platforming conflicts listed under 1S85CC.	ECML ESG
4S79LA	GB Railfreight	SX	11:08	Tees dock GB Railfreight	19:40	Mossend up yard	Increased dwell by 3.5m at Durham Sig Ty357, (1) removed at Birtley Junction, (1.5) removed at King Edward Bridge S. Junction, increased dwell by 4.5m at Crag Mill Loop, increased dwell by 5.5m at Grantshouse, removed [2] at Dunbar, removed [1] at Drem, reduced dwell by 8.5 at Millerhill S.S.	ECML ESG
2N11JS	TfW	SX	08:07	Maesteg	09:59	Ebbw Vale Town	Removed 2.5m dwell at Cardiff Central (dwell: 7.5m-->5m), added (2.5) at Ebbw Junction and arrives as booked	Wales ESG
2G54JS	TfW	SX	09:10	Cardiff central	10:24:30	Cheltenham Spa	Added (0.5) at Llanwern West Junction, (2) at Awre for headway at Barnwood Junction, P2-->P4. Consequential conflict: Platform reoccupation between 2G54Js and 1L70DA at Gloucester	Wales ESG

1E32XC	CrossCountry	SX	09:45	Reading	13:36	York	Proposed to depart 1E32 at 12:15 from Derby, whilst 1S85 departs in the slot 1E32 used from Derby to York departing at 12:00. 1E32 arrives York 15 later, turnaround at York with 1V90 York-Reading is 57mins. Consequential conflicts to 1E32 retimed listed under 1S85BB	ECML ESG
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1S89 13:07 from Cardiff

Amended service	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
0D01GB	DB cargo	THO	16:15	Tinsley SS	16:58	Belmont down yard	Removed (0.5) from Swinton, added (0.5) to bridge Junction, back to time, for headway	ECML ESG
1G38EV	Cross country	SX	14:41	Nottingham	15:56	Birmingham new street	Added (0.5) to Tamworth high level, removed (0.5) from Castle Bromwich Junction, back to time. Consequential for junction margin with retimed 6E08.	ECML ESG
1N20TR	Northern	EWD	15:45	Leeds	16:31	Sheffield	Changed Sheffield platform from 1B to 2B	ECML ESG
1N21TR	Northern	EWD	16:51	Sheffield	17:38	Leeds	Changed Sheffield platform from 1B to 2B	ECML ESG
1S49XC	Cross country	SX	11:27	Plymouth	20:05	Edinburgh	Removed (0.5) from Stenson Junction, added 0.5m to dwell at Chesterfield, back to time, consequential for retimed 6H45	ECML ESG
3Z27DB	Colas	THO	14:53	Derby R.T.C.	17:04	Doncaster West Yard	Removed (1) from Mexborough, added (1) to Hexthorpe Junction, back to time, consequential for headway with 0D01	ECML ESG

6E08GD 6E08GE 6E08GF 6E08GA 6E08GC	DB cargo	FO WO SX SX TO	13:06	Wolverhampton Steel Terminal	17:33	Masborough FD	Added 0.5m to Kingsbury Junction dwell, removed (0.5) from Tamworth high level, back to time, consequential for headway with 6E11	ECML ESG
6E11GC	DB cargo	MWFO	11:46	Appleford Sidings	18:25	Milford West	Added 3.5m to dwell at Water Orton West, removed 3.5m from Clay Mills Junction, for headway.	ECML ESG
6H45FA 6H45PD	Freightliner HH	MO MSX	09:37	Banbury resevoir tarmac	17:37	Tunstead Sdgs	Removed 0.5m from Ambergate Junction dwell, added (0.5) to Tapton Junction back to time, for headway	ECML ESG
1B83TP	TransPennine Express	SX	14:24	Cleethorpes	18:00	Liverpool lime street	Removed [1] from New Mills South Junction, added (1) to Edale, back to time.	ECML ESG
1L20DB	Great Western	SX	11:27	Carmarthen	15:22	Paddington	Extended dwell at Cardiff Central by 2m, added (0.5) at Marshfield, removed (2.5) at Llanwern West Junction, for headway	Wales ESG
1W94JW	Transport for Wales	SX	13:24	Cardiff Central	18:07	Holyhead	Added (0.5) approaching Newport for platform reoccupation with retimed 1L20. Removed (0.5) at Dorrington and back to booked.	Wales ESG
2013JS	Transport for Wales	SX	12:37	Ebbw Vale Town	13:24	Newport	Retimed to depart 1 minute earlier and removed (1.5) approaching Gaer Junction for headway with 1S89. Added back {0.5} to arrive on a full minute.	Wales ESG
6M86FA	GB Railfreight	TFO	10:30	Margam TC GB	18:48	Dee Marsh Recp.	Extended A-stop at Maindee North by 0.5m, removed from Panteg stop and back to booked.	Wales ESG
2N19JS	TfW	SX	12:07	Maesteg	14:02	Ebbw Vale Town	Removed (1) at Llanharan, removed (3) at Pontyclun, increased dwell by 1m at Cardiff Central, added (3) at Ebbw Junction, for headway with 1S89.	Wales ESG
2G62JS	TfW	SX	13:11	Cardiff central	14:25	Cheltenham Spa	Added (1) at Ebbw Junction, removed (1) and decreased dwell by 1m at Newport, added (1) at Awre, for headway with 1S89.	Wales ESG
9E15GT	TransPennine Express	SX	15:24	Liverpool Lime Street	18:24	Newcastle	Departs York 3m later for headway with 1S89, arrive Newcastle 4 minutes late.	ECML ESG

1S91 16:06 from Cardiff

Amended service	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
1Q27GB 1Q29GB	Test Train	WO	11:57	Crewe C.S.	19:20 19:21	Derby R.T.C.	Added (2) at Longton, (6) at Caverswall, (5) at Uttoxeter Signal Box, (3) at Tutbury for headway with 1S91 and 1D74. Removed the time from RM move at Derby 21.5m to 10.5.	ECML ESG
0N67GB	DRS	SX	19:10	Carlisle Kingmoor TMD	21:06	Tyne S.S.	Added (3.5) approaching Low Fell Junction, for junction margin with retimed 4S96. Removed (1) approaching Tyne SS and arrives 2 m later on a full minute.	ECML ESG
1B77ES	Grand Union	SX	15:13	Paddington	18:50	Carmarthen	Extended 1B77 Severn Tunnel Junction dwell by 1m for junction margin at Severn Tunnel Junction with retimed 2G68 (consequential to 1S91 departing earlier), removed 1 minute from Newport dwell and back to booked	Wales ESG
1S55XC	Cross country	SX	14:27	Plymouth	23:05	Edinburgh	Moved (3) from Dunbar to Grantshouse, added (2) at Dunbar for headway with retimed 9S21. Arrives 2 later.	ECML ESG
1U75GT	TransPennine Express	EWD	18:45	Manchester Victoria	21:17	Scarborough	Added (1) approaching York for platform reoccupation with 1S91, removed 1 minute from stop and back to booked.	ECML ESG
3Q14GS	Test Train	THO	21:03	Slateford Depot	04:44	Darlington Up S.S.	Retimed to depart Edinburgh stop a minute later, consequential for retimed 5D90. Removed from Berwick stop and back to booked.	ECML ESG

4S92LA	DB Cargo	FO FSX	18:50	Tees Dock	01:50 02:00	Mossend	Retimed between Ferryhill South Junction-Millerhill to achieve headway with 1S91 at Newcastle. Runs after 1S55 from Heaton North. Arrives to Millerhill C-stop as booked in June 24, however, this is different in the ESG database. Kept it to June times for the C-stop.	ECML ESG
5D90LA	ScotRail	SX	22:27	Millerhill EMU Yard	22:40	Edinburgh	Departs at 22:14 (13mins earlier) for headway with 1S87BB and before 1S27, 1S28. Arrives early.	ECML ESG
4M50GA	DB cargo	SX	16:58	East Mids Gateway TML DBC	21:21	Immingham Mineral Quarry	Reduced A-stop at Kilnhurst by 3.5 minutes for headway with 1S91, added (2.5) at Hexthorpe, and added (1) at Kirk Sandall and back to booked.	ECML ESG
5S26LN	LNER	SX	22:20	Edinburgh	22:27	Craigentinny t& RSMD	Depart 1 minute early for junction margin with retimed 5D90. Arrives 1 early. (still has 20 to be formed of passenger service)	ECML ESG
6B36LA	Colas	THO,THSX	19:25	Newcastle	23:41	Oxwellmains	Added (1) at Prestonpans, removed {0.5} at Oxwellmains and arrives on a full minute, one minute later.	ECML ESG
4N41GA	GB Railfreight	FSX	19:57	Doncaster Down Decoy	23:25	Tyne Coal Terminal	Depart 2 minutes later for headway with retimed 1S91 from Doncaster, added (0.5) pathing approaching Doncaster for margin with 1V67 and removed 2 m form A-stop at Arksey Loop, back to booked.	ECML ESG
6S66SO	Colas	FSX	16:25	Hunslet Tilcon	01:29	Oxwellmains	Removed {1} approaching Ferryhill South Junction, removed {0.5} at Tursdale as not required if not stopping on the slow line. Added to dwell at Durham loop. Consequential headway for retimed 4S92LA.	ECML ESG

6X36SD	Colas	SX	22:23	Millerhill SS	03:41	Doncaster Up Decoy	Departs 1 minute earlier from Millerhill for junction margin with 1S91 at Monktonhall, added (0.5) approaching Monktonhall and (0.5) at Oxwellmains, back to booked.	ECML ESG
9E18GT	TransPennine Express	SX	18:24	Liverpool Lime Street	21:23	Newcastle	Departs York 3 minutes later, to run behind 1S91, added (0.5) at Thirsk for headway and (0.5) approaching Newcastle, to avoid clash with 1S91 at Darlington.	ECML ESG
9S21LA	TransPennine Express	EWD	21:19	Newcastle	23:01	Edinburgh	Departs 2m later for headway with 1S91. Arrives 2.5 later. Needs to be split to [SX] and [SO]	ECML ESG
1G21DA	Great Western	SX	15:31	London Paddington	17:30	Cheltenham Spa	Added 1m to dwell at Gloucester and removed (1) approaching Horton Road, added (1) at Cheltenham for platform reoccupation with retimed 2G68 and ECS. Arrives 2 later.	Wales ESG
1L26DA	Great Western	SX	14:18	Carmarthen	18:14	London Paddington	Departs Cardiff at 16:19 vs 16:18 for headway with retimed 2019 into P4. Minute later throughout to Bristol, reduced dwell there and back to booked.	Wales ESG
1M61FX	Cross country	SX	14:38	Paignton	19:59	Manchester Piccadilly	Added (1) at Barnwood Junction and removed at Longbridge, for headway with retimed 1G21/5L86 at Cheltenham Spa.	Wales ESG
2C83DA	Great Western	SX	16:00	Cardiff Central	17:59	Taunton	Departs 1 minute early, consequential for making 1S91 one minute early along with 2N25. Back to booked by Newport.	Wales ESG
6H82FB	Freightliner HH	SX	16:11	Small Heath LaFarge	22:05	Tunstead Sdgs	Removed (1) at Bromford Bridge for headway, added 1m to A-stop at Clay Mills Junction and back to booked.	ECML ESG

2G68JS	Transport for Wales	SX	16:10	Cardiff Central	17:26	Cheltenham Spa	Routed via P4 at Newport for headway with 1S91. Arrives Newport 1 minute earlier. Pathing at (3.5) at Llanwern West for junction margin with 6V32 at Severn Tunnel Junction. Arrives as booked	Wales ESG
2N25JS	Transport for Wales	SX	15:07	Maesteg	17:02	Ebbw Vale	Reduced Cardiff stop by 3.5 minutes, consequential for retiming 1S91 to depart earlier. Added (2) at Park Junction and (1.5) at Park north Junction and back to booked.	Wales ESG
2O19JS	Transport for Wales	SX	15:38	Ebbw Vale Town	16:26	Newport	Departs 1 m earlier (margin with retimed 2N25JS at Park Junction) added (1.5) at Park Junction and Gaer Junction, retimed to arrive P4 to avoid clash with 2G68 routed into P4. Arrives Newport at 16:27	Wales ESG
2O84DA	Great Western	SX	17:10	Gloucester	20:41	Weymouth	Departs 1 minute earlier for AB headway with 1S91 between Gloucester and Horton Road, added (1) at Gloucester Yard Junction and back to booked.	Wales ESG
5L86DA	Great Western	Sx	17:33	Cheltenham Spa	17:56	Cheltenham Spa	Retimed to depart 2mins later (due to 1G21 retimed) reduced RM by 2 and arrives to form 1L86 as booked.	Wales ESG
5V68DC	Great Western	SX	17:05	Gloucester	16:06	Gloucester Loco Spur	Departs 5 minutes earlier, consequential to 2O84, 1S91 AB headway at Gloucester-Horton Road.	Wales ESG
6M67FD	Direct Rail Services	SX	14:08	Bridgewater F.D.	21:18	Crewe Coal Sidings	Departs Eckington loop 3m later 17:29->17:32) for headway with 1S91. Arrives C-stop at Worcester T.C. 3 minutes later, back to booked departing.	JUNE 24
4E18GA	Freightliner HH	SX	09:47	Fairwater Yard	21:57	Doncaster Wood Yard	Extended A-stop in Breadsall loop by 10 minutes for headway with 1S91, removed from C & A-stop at Barrow Hill Up Sdgs 2.	ECML ESG

6E88GE	GB Railfreight	SX	18:40	Toton North Yard	22:23	Thrislington	Extended A-stop at Masborough Junction from 3.5m to 10.5 minutes. Removed from the (8) at Swinton and back to booked, for headway with 1S91, which has been retimed from Sheffield to avoid headway conflict with 2N29 at Aldwarke Junction and 1V70 junction margin at Swindon.	ECML ESG
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1V99 07:27 from Edinburgh

Amended service	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
6E54GP	Colas	FO	05:02	Oxwellmains Lafarge	13:13	York South Yard FHH	Extended A-stop by 38m at Durham sig TY358, removed 38m from A-stop at Ferryhill South Junction, back to time	ECML ESG
1A18LN	LNER	SX	09:40	Leeds	11:51	London Kings Cross	Added a total of (1.5) between South Kirkby Junction and Adwick for headway with 1V99. Reduced Doncaster stop by 1.5 minutes (3.5-->2m) and back to booked. Still conflicts with 1V99 as not enough time for platform re-occupation.	ECML ESG
1A70GC	Grand Central	SX	08:56	Bradford Interchange	11:38	London Kings Cross	Removed (1) at Adwick for headway with 1V99 approaching Doncaster. Extended dwell to 3m from 2 at Doncaster and back to booked. Still 0.5 shy of headway and conflicts with 6N06/6X06 on P1 at Doncaster.	ECML ESG
1D01LA	ScotRail	SX	06:54	Dunbar	07:27	Edinburgh	Added 1m to dwell to Wallyord, 2m to Musselburgh, arrives 3m later	ECML ESG
1F25EA	East Midlands Railway	SX	10:02	St Pancras	12:01	Sheffield	Replatformed at Derby from 3 to 4B, to make P3 available.	ECML ESG

1M01EX	Cross country	SX	08:45	Cardiff	12:04	Nottingham	Added (1) to Stenson Junction, removed 1m from Derby dwell, back to time, Junction margin	ECML ESG
1N09KH	East Midlands Railway	SX	10:10	Crewe	12:32	Newark Castle	Replatformed at Derby from 3A to 4A to make P3 available.	ECML ESG
1P66GT	TransPennine Express	EWD	08:21	Saltburn	11:41	Manchester Airport	Suggest splitting to [SX] and [SO] Moved to the SL between Thirsk-Tollerton Junction for headway with 1V99 on the FL. Added {0.5} at Tollerton for moving to the FL, reduced York dwell 6-->2m and back to booked.	ECML ESG
1Q19GS	Test Train	MO	08:39	Heaton T&R.S.M.D.	20:18	London Kings Cross	Extended A-stop at Durham Sig Ty358 to 10 minutes (was 0.5) and removed A-stop at Ferryhill South Junction for headway with 1V99 and for junction margin with retimed 6D62. The dwells were marked as Op-stops in the ECML ESG however in June 24 TT they are A-stops, so updated accordingly.	ECML ESG
1Q51CA	Colas	MO	11:15	Derby R.T.C.	24:01:00	Eastleigh east yard	Changed platform 5A to PS at Derby, removed 2m from dwell, added (0.5) to Derby Way & Works Junction, back to time, lack of available platforms	ECML ESG
1S00LN	LNER	SX	06:18	Newcastle	07:57	Edinburgh	Retimed departure 1m earlier from Newcastle to maintain headway with 5E82LQ, added (1) to arrive as booked.	ECML ESG
1Y12LF	Northern	EWD	10:17	Nottingham	12:14	Leeds	Removed 1m from Alfreton dwell, added 1m to Dronfield dwell, back to time, Junction margin	ECML ESG
2A01NT	Northern	EWD	07:04	Chathill	08:20	Newcastle	Departs 2m later a consequence of ECS 5A01NT change, however dwell changed from 14 to 12 to keep arrival time the same	ECML ESG



2A03NT	Northern	EWD	08:28	Morpeth	08:50	Newcastle	Departs 3m earlier, arrives 3m earlier for headway with 1V99TH between Morpeth and Newcastle.	ECML ESG
2A18EA	East Midlands Railway	SX	10:54	Nottingham	12:05	Matlock	Replatformed at Derby from 4B to 5 to make P3 available.	ECML ESG
2C10QZ	Northern	SX	08:36	Leeds	09:52	York	Added 3m to dwell at Poppleton for junction margin with 2C17 at Skelton Junction, arrives 3m later	ECML ESG
2C17QZ	Northern	EWD	09:42	York	10:56	Leeds	Departs 2.5m earlier, removed (0.5) from York, added (1) at Skelton Junction, and 2m dwell to Poppleton to resolve headway with 1S33.	ECML ESG
2D84LA	ScotRail	SX	07:41	Dunbar	08:13	Edinburgh	Departs 1m earlier from Dunbar, dwell increased from 1 to 2 at Musselburgh to avoid junction margin with 1V54XC at Abbeyhill Junction and keep same arrival at Edinburgh.	ECML ESG
2T10GA	Northern	EWD	08:07	Ashington	08:42	Newcastle	Moved from ML to SL at Heaton South Jn added {0'5} at Benton North Jn, (0.5) pathing to Heaton South Jn, arrives 1m later	ECML ESG
2T62LA	ScotRail	SX	07:10:30	Edinburgh	08:11	Tweedbank	Retimed to depart 0.5minute later (should on a full minute) removed 0.5m from dwell at Shawfair (4m-->3.5m) and back to booked.	ECML ESG



2V60DA	Great Western	SX	09:30	Weymouth	12:57	Gloucester	Added (1) at Gloucester Yard Junction to give 3m margin for AB at Horton Road Junction and arrives 1 m (12:57-->12:58) later as booked. Added (2) at Standish Junction to give 3m margin for headway at Gloucester and arrives 2m later (12:57-->12:59) Added (1) at Horton Road Junction to give 3m margin for platform reoccupation at Gloucester and arrives 1m later than booked	JUNE 24
2Y38LA	ScotRail	SX	07:15	Edinburgh	07:47	North Berwick	Retimed to depart at 07:08 (7 minutes earlier) to enable a slot for 1V99 from Edinburgh. Arrives 7 early. Turnaround for being formed off 5D82LA reduced to 8 minutes (meets the minimum required for ScotRail)	ECML ESG
3Z26DB	Colas	THO	09:29	Doncaster west yard	11:20	Derby R.T.C.	Removed (1) from Ambergate Junction, added (1) to St Mary's South Junction, back to time, for headway	ECML ESG
4L84HA 4L84HB	DB cargo	MO MSX	10:43	East Mids Gateway TML DBC	18:58 18:52	London Gateway	Removed (1) approaching Stenson Junction, added back at Burton-on-Trent and follow as booked, for headway with 1V99	ECML ESG
4M75FA	GB Railfreight	WFO	08:19	Avonmouth Hanson Sdgs	18:49	Clitheroe Castle	Added (1) at Longbridge for junction margin with 1V99, removed from A-stop at Landor Street and back to booked.	JUNE 24
5A01NT	Northern	EWD	06:41	Chathill	07:02	Chathill	Increased dwell by 2 minutes to avoid junction margin conflict with 1S00LN	ECML ESG
5A03NT	Northern	EWD	08:09	Morpeth	08:27	Morpeth	Reduced RM at Morpeth sidings from 14 to 11 as a consequential change to retimed 2A03NT	ECML ESG
5D01LA	ScotRail	SX	07:21	Edinburgh	07:37	Millerhill EMU	Departs 5m earlier, added 3m to dwell & (1) to Portobello Junction to resolve junction margin at Abbeyhill with 2T55LL,	ECML ESG

							Headway at Craigentenny with 2T62LA, Absolute block at Portobello Jn with 2T62LA	
5E82LQ	Lumo	MSX	06:11	Heaton T&R S.M.D	08:01	Edinburgh	Pathing changed for 5E82LQ from (2.5) to (1) at Oxwellmains to avoid a junction margin conflict with 2D84LA at Dunbar, then added (0.5) at Dunbar to maintain headway with 1S00LN.	ECML ESG
6N31GA 6N32GA	DB cargo	SX	07:46	Scunthorpe BSC	12:23 12:29	Lackeby BSC	Added (4) at Colton Junction, removed (4) from York Yard South Junction, back to booked, to resolve clash with 1P65GT.	ECML ESG
6D62GA	GB Railfreight	SX	08:53	Thrislington GB Railfreight	13:53	Scunthorpe Anchor (GB Railfreight)	Retimed to depart Ferryhill at 09:16 for headway, removed time from A-stop at Darlington and departs Darlington Loop as booked. Conflicts with 1E08 in the ECML ESG that existed before the proposed change.	ECML ESG

1V91 10:03 from Edinburgh

Amended service	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
0E15GA	GB Railfreight	MO	05:50	Millerhill SS	13:44	Doncaster down decoy	Added (4.5) at Thirsk, removed (1) at Tollerton Junction, removed (1) at Skelton Junction, removed (1) and decreased dwell by 1.5m at York Yard South Junction, removed (0.5) at Hambleton Junction, removed (0.5) at Shaftholme Junction	ECML ESG
0V01DA	Colas	MWFO	13:43	Derby RTC	16:58	Coleham ISU	Extended dwell by 3 minutes at Derby, reduced dwell by 3 minutes at Sunnyside, added (1) at Wichnor Junction, added 12 min dwell at Elford loop, removed 10 min dwell at Whitacre Junction, back to booked.	ECML ESG

1D63ES	CrossCountry	SX	13:12	Birmingham new street	14:23	Nottingham	Replatformed at Derby from 4B to 3B.	ECML ESG
1E10LZ	CrossCountry	SX	09:58	Edinburgh	14:08	Kings cross	Departs 2m early, added (2) at Berwick, removed (0.5) at Skelton Junction, added (0.5) at Hambleton North Junction and back to booked.	ECML ESG
1G30EV	CrossCountry	SX	13:41	Nottingham	14:56	Birmingham new street	Added (1) at Derby Way&works Jn, removed 1m from Derby dwell, platform from 3A to 3B back to time	ECML ESG
1N08LN	LNER	SX	10:33	London Kings Cross	13:32	Newcastle	Added Colton North Junction Tiploc in the schedule, routed on LSL Down, changed platform (P5-->P11) at York, removed 1min dwell at York, and arrive as booked.	ECML ESG
1V58XC	CrossCountry	SX	10:05	Edinburgh	20:50	Penzance	Added (1) at Drem, removed (0.5)and decreased dwell by 2 minutes at Newcastle, added (1.5) at Birtley Junction, added (1) and decreased dwell by 1 min at York, changed platform to 2B at Derby, added (0.5) at Water Orton, added (0.5) at Landor Street Junction, decreased dwell by 1 min, removed (0.5) at Westerleigh Junction, increased dwell by 1.5 min at Bristol Parkway, removed (0.5) at Filton Abbey Wood, removed (0.5) at Horfield Junction, removed (0.5) at Bristol East Junction, added 1 min to dwell at Bristol Temple Meads.	ECML ESG
2A27SN	East Midlands Railway	SX	13:12	Matlock	14:18	Nottingham	Departs 3m early, added (3) at Spondon and back to booked.	ECML ESG

4D08GY	GB Railfreight	SX	09:39	Tees dock GB Railfreight	13:18	Doncaster Iport GB Railfreight	Removed (2.5) and increased dwell by 2.5 at Skelton Bridge Junction, added (3) at Skelton Junction, added 1 dwell at York Yard South Junction, removed (0.5) at Colton North Junction, added (0.5) at Shaftholme Junction, added (3) and 0.5m dwell at Doncaster	ECML ESG
4E29GA	Freightliner Intermodal	MSX MO	04:59	Coatbridge FLT	13:21	Tees dock Corus	Added 13.5m to dwell at Newcastle, 5.5m to Darlington, removed {1} from Eaglescliffe, arrives 2m later	ECML ESG
4E29XX	Freightliner	MSX	04:59	Coatbridge FLT	13:21	Tees dock Corus	divert Via morden & stockton (all RA8)- is viable 4E29XX 13'30 dwell to newcastle, 3 pathing to ferryhill south jn, 4 pathing to morden LC sig NF7194, 1 pathing to norton sth Junction, finish 2 later. this does have a conflict with 6C96QJ to solve	ECML ESG
4M03FZ	GB Railfreight	SX	12:41	Doncaster Down Decoy	14:47	Peak Forest Cemex	Increased dwell by 6.5m at Hexthorpe Junction, added (0.5) at Mexborough, increased dwell by 9m at Thybergh Junction, added (1) at holmes Junction, added (2) at Wincobank Junction, added (0.5) Nunnery Main Line Junction, increased dwell by 2 and changed to platform 8 at sheffield, added (0.5) at Totley Tunnel East, removed (0.5) at Edale	ECML ESG
1V58DB	Cross country	SX	10:07	Edinburgh	20:48	Penzance	Added (0.5) to Wichnor Junction, removed (0.5) from Kingsbury Junction, back to time, for headway	ECML ESG

1V93 13:27 from Edinburgh

Amended service headcode	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
1P78GT	TransPennine Express	EWD	14:21	Saltburn	17:41	Manchester Airport	Moved to Slow line between Tollerton Junction and Thirsk and added {0.5} at Tollerton for headway with 1V93BB and removed 4min dwell at York to arrive as booked.	ECML ESG
5A15NT	Northern	EWD	14:10	Morpeth	14:26	Morpeth	Departs 1m earlier as a consequence to departing 2A15NT 1m earlier	ECML ESG
6D11GA	DB cargo	SX	13:32	Lakenby B.S.C	18:04:30	Scunthorpe BSC	Extended A stop at Boroughbridge Rd by 2m for headway with retimed 1P78. Removed 2m dwell (11min-->9min) at York Yard south Junction and departs as booked	ECML ESG
1E86XC	CrossCountry	SX	07:56	Southampton central	13:28	Newcastle	Added (0.5) to Durham, removed (0.5) from King Edward Bridge South Junction, back to time	ECML ESG
1J65GQ	Northern	EWD	14:54	Newcastle	16:20	Carlisle	Departs Newcastle 4 mins earlier, added (1) at King Edward Bridge S. Jn., (1) at Norwood Jn., (0.5) at MetroCentre, and dwell at MetroCentre increased to 2.5 mins to bring back to booked. For headway with 1V93 departing Newcastle after 1J65.	ECML ESG
2A15NT	Northern	SX	14:27	Morpeth	14:49	Newcastle	Departs 1 min earlier, (1) removed from Cramlington, (0.5) removed from Benton North Junction, {0.5} removed from Manors	ECML ESG
2C34QZ	Northern	EWD	14:36	Leeds	15:49	York	Dwell extended at Skelton Junction and routed to the DL, to be parallel with 1V93 and 1E17. Arrives 3 minutes later at 15:52. This solution repeats throughout the day for other services.	ECML ESG

2D88LA	ScotRail	SX	14:52	Dunbar	15:25	Edinburgh	Added (1) to Wallyford, 1m dwell to Abbeyhill jn, finishes 2m later, for junction margin at Portobello Jn.	ECML ESG
2T94LA	ScotRail	SX	15:10	Edinburgh	16:11	Tweedbank	Departs 1m later, (1) from Brunstane, to avoid clash at Abbeyhill Jn	ECML ESG
6E97GB	DB cargo	MO	10:07	Carlisle network yard	16:53	Tees dock BSC export berth	Dwell reduced by 4 minutes at Tyne S.S. and added back as (4) at Birtley.	ECML ESG
6V73DC	DB cargo	FO	15:07	Cliffe Vale	07:18	St Blazey SS	Added 2m to dwell to Park Lane Junction, removed (1) from Landor Street jn, (1) from Lifford east jn, back to time, for headway	ECML ESG

1V41 16:00 from Edinburgh

Amended service	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
1Y28LF	Northern	EWD	18:17	Nottingham	20:13	Leeds	Moved from platform 3 to 1 at Chesterfield, changed from DBH to DM to avoid junction margin with 1L16EA at Tapton Junction	ECML ESG
1E22LN	LNER	SX	16:00	Edinburgh	20:07	London Kings Cross	Departs 5m early, with 1V41 departing at 16:00, Newcastle dwell increased by 1m, added (1) at Tursdale Junction, added (3) at Ferryhill Sth. Junction, added (0.5) at Darlington, decreased dwell by (0.5) at York, back to booked. Consequential conflicts exist between 1E22 and 1Q23, 1Q24, 2Y07, 4E04 and 4L78/4L79.	ECML ESG
1E44XC	Cross country	SX	12:45	Reading	17:28	Newcastle	Added (1) at Ferryhill Sth. Junction, removed (0.5) and increased dwell by 0.5 at Durham, added (2) at Birtley Junction, added (1) at King Edward Bridge S. Junction, to arrive 3 minutes later, consequential to 9E14	ECML ESG

6V99QJ	QJ - Strategic Capacity	TO	18:07	Bescot yard	06:16	St Blazey SS	Removed 2m dwell from Stoke Works Jn, extended Ashchurch dwell to 43.5m and removed from pathing towards Gloucester, back to booked by Gloucester, for headway.	JUNE 24
1N16LN	LNER	SX	14:33	London King's Cross	17:33	Newcastle	Removed (1) at Darlington, added (1) at Birtley Jn, added (1) at King Edward S. Jn to arrive 1m later, consequential to 9E14, 1E44	ECML ESG
1E67GS	Cross country	SX	16:27	Plymouth	22:04	Leeds	Birmingham platform 9A to 8A to avoid clash with 1G57EX	JUNE 24
1N65EV	Cross country	Sx	17:24	Stansted	20:38	Birmingham new street	Added (1) approaching Coleshill, arrives 1m later, consequential headway for 6V66 Y-paths and 4V46.	ECML ESG
1Y23GN	LNER	SX	18:27	York	20:37	London Kings Cross	Added (0.5) at Shaftholme for headway with 1V41, removed (0.5) at Tallington Jn and back to booked. 1Y23 still clashes with 4L79HA.	ECML ESG
4G65EA	Freightliner Intermodal	SX	20:08	Lawley street FLT	21:35	Daventry	Retimed to depart 1m later for junction margin with 1V41 at Water Orton; removed (1) at Whitacre Jn and back to booked.	ECML ESG
4O31DA	Freightliner Intermodal	FO, FSX	17:45	Leeds F.L.T.	01:34	Soton W docks	Added (1) at Aldwake for headway with 1V41 at Aldwarke Jn and removed (1) at Tapton, back to booked.	ECML ESG
4O64CA	DB cargo	FO	18:53	East Mids Gateway TML DBC	07:27	Soton W docks	Added (4) at Clay Mills Jn, increased dwell by 4m at Branston Jn, decreased dwell by 3m at Elford Loop, to avoid clash with 1V41 at Wichnor Jn.	ECML ESG
1V28DD	West Midlands Trains	SX	20:00	Birmingham New Street	20:38	Worcester shrub hill	Removed (0.5) from Longbridge for headway, (0.5) to Droitwich Spa, back to time	JUNE 24

4V46DB	DRS	SX	19:24	Daventry Tesco	23:35	Cardiff Wentloog	Added (1) at Nuneaton Abbey Jn, added (0.5) at Whitacre Jn, removed (0.5) at Coleshill Parkway, removed (0.5) at Bordesley Jn for headway with 6V66 Y-paths. Arrives 0.5m later.	ECML ESG
2G71DB x2	Transport for Wales	SX	20:40	Cheltenham Spa	22:03	Cardiff Central	Departs 1m earlier, added (1) to Cheltenham Spa for junction margin.	JUNE 24
2P59GG	West Midlands Trains	SX	19:29	Bromsgrove	20:47	Lichfield Trent Valley	Birmingham platform 8A to 7A for platform reoccupation	JUNE 24
6M02FA	Freightliner HH	TTHO	16:55	Hunslet Yard	20:32	Tunstead	Extended A-stop at Mill Race Jn by 1m, added (2) at Nunnery Main Line Jn, added (1.5) and added 0.5m dwell (A-stop) at Sheffield, added (1) at Dore Station Jn, removed (0.5) at Dore West Jn for headway with 1V41 from Mill Race Jn to Dore Station Jn, removed (1) at Totley Tunnel East, reduced 4m dwell at Earles Sidings Sig ES31, arrives 0.5m later.	ECML ESG
2R59GG	West Midlands Trains	SX	19:46	Four Oaks	20:53	Redditch	Changed Birmingham platform 12B to 12A	JUNE 24
6V66DA 6V66GL 6V66DB 6V66DH 6V97DC	DB Cargo	TTHO TTHO, MO, WO, FO MO, WO WO TTHO	15:09 14:39 15:09 15:02 16:33	Scunthorpe B.S.C. Beeston Sims Mcintyre	01:32 00:17 08:04 08:04 23:36	Margam T.C. Eaust Usk	Various Y-paths: added (0.5) at Whitacre Junction approaching Coleshill Parkway, added (1) at Coleshill Parkway approaching Water Orton for headway with 1V41 at Water Orton, back to booked by Cheltenham Spa.	ECML ESG
4V18DA	Freightliner HH	FO	13:22	Doncaster Wood Yard	23:14	Fairwater yard	Removed 0.5m from dwell from Ashchurch for platform reoccupation, added (0.5) to Cheltenham Spa, back to time	JUNE 24

4V18DA	Freightliner HH	FSX	13:22	Doncaster Wood Yard	23:14	Fairwater yard	Removed 0.5m dwell from Ashchurch for platform reoccupation, added (0.5) to Cheltenham Spa, back to time.	JUNE 24
5G71DB x2	Transport for Wales	SX	20:28	Cheltenham Spa	20:38	Cheltenham Spa	Removed 1m dwell from Cheltenham Signal 422 for junction margin, finishes 1 earlier.	JUNE 24
9E14GT	TransPennine Express	SX	14:24	Liverpool Lime Street	17:24	Newcastle	Added (1) at Durham, added (2) at Birtley Jn, added (1) at King Edward S. Jn for platform end margin with 1V41 departing platform 2	ECML ESG
6V12DC	DB Cargo	SX	18:46	Round oak	21:59	Llanwern exchange sdgs	Removed (1) from Norton Jn, consequential for headway with 6V52, added (1) to Abbotswood Jn, back to time	JUNE 24
6V12QJ	QJ - Strategic Capacity	SX	18:46	Round Oak	21:59	Llanwern Exchange sdgs	Removed (1) from Norton Jn, added (1) to Abbotswood Jn, removed (3) from Ashchurch, (0.5) from Cheltenham Spa, dwell added at Cheltenham Lansdown Loop 7.5m, removed (6.5) from Barnwood Jn, (1) from Chepstow, (0.5) from Llanwern Steelworks East, back to time.	JUNE 24
6V52DA	DB cargo	WO FO	17:06	Wolverhampton Steel Term	01:38 02:07	Margam TC	Removed 2m from dwell from Stoke Works Jn for headway, added 2m dwell to Ashchurch, back to time.	JUNE 24
6V99DP	DB Cargo	TO	18:07	Bescot yard	06:14	St Blazey SS	Removed 2m dwell from stoke works Jn for headway, added 2m to dwell to Ashchurch, back to time.	JUNE 24

1V67 17:27 from Edinburgh

Amended service headcode	Operator	ODT	Departure	From	Arrival	To	Description of required flex	Database
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0B01DE	DB cargo	THO	21:09	Bescot yard	22:43	Up bromsgrove neck	Added 2m to dwell at Crofton Jn, arrives 2m later.	JUNE 24
1V71DC	Cross country	SX	17:07	Edinburgh	23:30	Bristol temple meads	Removed (0.5) from Ashchurch, added (0.5) to Cheltenham spa, back to time	JUNE 24
2T54DC	Great Western	SX	22:36	Worcester shrub hill	23:57	Bristol temple meads	added (1.5) to Worcester Wylds Lane Jn for headway from Abbotswood Jn, removed (1.5) from Ashchurch, back to time	JUNE 24
2R29LF	Northern	SX	19:41	York	21:47	Bridlington	Departs 1m earlier to achieve junction margin of 4 minutes with 1V67 arriving to platform 3. Added (1) at Colton Junction and back to booked.	ECML ESG
6L55HE	DB cargo	MO	19:27	Tinsley S.S.	01:54	Ripple Lane	Aligned with WO path by removing dwell at Cadeby Loop to avoid junction margin conflict with 1V67 at Hexthorpe Jn, added back A-stop at St James's Junction and back to booked.	ECML ESG
6V81DB	DB Cargo	MWO	18:15	Masborough FD	00:35	Cardiff Tidal T.C	Removed stop at Cofton Jn and added one at Stoke Works Jn, amended path to match TTHO train from Stoke Works Jn to Severn Tunnel Junction. Arrives 9 m early. Newport C stop affected by 18mins (early)	Wales ESG
1A43LN	LNER	SX	19:40	Leeds	21:50	London Kings Cross	Removed (1.5) from Wakefield Westgate, added (2) minutes at Adwick and removed (0.5) at Loversall Carr Junction, for headway with 1V67 from Doncaster to Marshgate Jn.	ECML ESG
1C90EA	East Midlands Railway	SX	20:37	Sheffield	21:12	Derby	Added (2) to Ambergate Jn for headway, arrives 2 later.	ECML ESG
1L18EA	East Midlands Railway	SX	18:50	Liverpool Lime Street	21:31	Nottingham	Removed 0.5 m dwell from Sheffield for headway with 1V67 between Sheffield and Chesterfield South Jn, added 0.5 m to Alfreton dwell; back to time.	ECML ESG

1N18LN	LNER	SX	15:33	London King's Cross	18:32	Newcastle	Change Newcastle platform 4 to 6 If this a 5-car, it will fit ONLY if can also occupy platform 6 at the same time. If it is a 9-car, it will not fit, in which case, a shunt move would be required for LNER to free up the platform before it forms the return service (1Y25 at 19:27)	ECML ESG
1P86GT	TransPennine Express	EWD	18:21	Saltburn	21:41	Manchester Airport	Moved to SL between Thirsk-Tollerton to resolve clash on the FL with 1V67. Extended stop at Thirsk by 0.5m, reduced York dwell to 2m (5m→ 3m) and back to booked.	ECML ESG
1S18LN	LNER	SX	13:30	kings cross	17:34	Edinburgh	(1) added to Monktonhall Junction for junction margin with 1V67 departing Edinburgh at Abbeyhill Junction, finishes 1m later	ECML ESG
1V71XC	Cross country	SX	17:05	Edinburgh	23:30	Bristol temple meads	Changed to platform 4 at Newcastle, added (0'30) at Darlington, removed (0'30) at Skelton Junction Yorkshire, changed to platform 5 at York, changed to platform 2B at Derby.	ECML ESG
1Y24LN	LNER	SX	18:27	Newcastle	21:28	London Kings Cross	Removed (0.5) at Darlington and Northallerton, consequential for headway with 1V71, 1P86 and 1V67. Extended York stop by 1m and back to booked time.	ECML ESG
2A41NT	Northern	SX	18:26	Morpeth	18:48	Newcastle	Departs 1m earlier from Morpeth for headway with 1V67 from Morpeth to Newcastle and removed (1) at Manors Newcastle.	ECML ESG
2A42NT	Northern	EWD	18:44	Newcastle	19:07	Morpeth	Depart 2 m earlier, added (1) and changed platform to 3 at Newcastle for junction margin with 2A41, increased dwell by 1m at manors	ECML ESG

5A41NT	Northern	SX	18:10	Morpeth	18:24	Morpeth	Removed 1m from reverse move at Morpeth reversing siding, arrives 1m earlier. Consequential for retiming 2A41 to depart 1m early.	ECML ESG
5A42GA	Northern	SX	17:52	Newcastle	18:41	Newcastle	Reduced dwell by 2 m at Forth Banks Line, changed platform to 3 at Newcastle for platform reoccupation with 2A42. Consequential for 2A42.	ECML ESG
5S16LN	ScotRail	SX	17:19	Edinburgh	17:29	Craigentinny t& RSMD	Departs 2m earlier for headway at Edinburgh, removed (2) from Abbeyhill Junction, finishes 4 earlier.	ECML ESG
5S95LL	LUMO	SX	17:16	Edinburgh	17:24	Craigentinny t& RSMD	Departs 2m earlier for headway at Edinburgh, removed 2m dwell from Craigentinny Junction, finishes 4 earlier,	ECML ESG
6M99EX	GB Railfreight	SX	15:31	Rylstone Tilcon GB Railfreight	23:55	Hams hall GB Railfreight	Removed (6) from Masborough Junction, (2) from Beighton Junction, corrected adj at Clay Cross North Junction (1.5m --> to 1m), removed dwell at Broadholme (A, 4.5), (1) from Derby, added 20.5m to Sunnyhill dwell, back to time For headway with 1V67 and consequential for 1C90.	ECML ESG
6O27CA	GB Railfreight	SX	19:06	Cliffe hill stud farm GB Railfreight	02:20	Eastleigh east yard	Removed 0.5m from Wigston North Junction dwell for headway with 1V67 at Castle Bromwich; added (0.5) to Castle Bromwich Junction, back to time	ECML ESG
6O27CC	GB Railfreight	SX	20:37	Mountsorrell GB Railfreight	02:20	Eastleigh east yard	Removed (0.5) from Nuneaton Abbey Junction, added (0.5) to Castle Bromwich Junction, back to time, for headway with 1V67 at Castle Bromwich.	ECML ESG
6V81DB	DB Cargo	FO	18:10	Masborough FD	00:35	Cardiff Tidal T.C	Removed stop at Cofon Junction and added one at Stoke Works Junction, same path to match TTHO train from Stoke Works to Severn Tunnel Junction. Arrives as booked.	Wales ESG

6V93DE	Freightliner HH	TWTHO, FO	16:20	Kennett FHH	01:25	East Usk yard FHH	Added (2) to Longbridge for headway, removed (2) from Barnt Green, back to time	JUNE 24
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G.04 Workshop summaries

G.04.01 7th March 2024

Participants:

- Alliance Rail: Toby Hart, Ian Yeowart
- ATT: Sam Carrington, Mags Darms, Lee Brinklow, Ildi Mikula
- FNPO: Gianmaria Cutrupi

Key discussion points:

- Review of the southbound path between Edinburgh-Sheffield in the ECML ESG, conflicts and potential solutions discussed per headcode.
- Conclusion: 2 out 5 paths (2nd and 4th) require a more in-depth look and potential retiming to a different slot, due to fundamental conflicts with Scotrail, Lumo and TPE between Edinburgh-Newcastle
- 3 out of 5 paths (1st, 3rd, 5th): current slot may work, but other conflicts require resolution.

Actions:

- Toby to look at the two trains for potential different time slots departing Edinburgh.
- ATT to feedback on LNER Edinburgh fast service rights (related to the above).
- Ildi and Sam to look at freight conflicts in the Darlington and Doncaster area.
- All: look at the Temple Hirst and Leeds service conflicts with LNER.

G.04.02 11th March 2024

Participants:

- Alliance Rail: Toby Hart, Ian Yeowart
- ATT: Sam Carrington, Ildi Mikula, Joseph Kurien, Mags Darms

Key discussion points:

- Discussed situation from last meeting.
- Options for sending over Toby's changes/options for the 2nd and 4th train of the day from Edinburgh: pif +F3s
- Discussed the first train (1V99) from Edinburgh and resolved some of the conflicts.

Actions:

- Toby to send over F3s and pifs for the proposed new times.
- ATT/Toby to look at remaining conflicts for 1V99.

G.04.03 14th March 2024

Participants:

- Alliance Rail: Toby Hart, Ian Yeowart
- ATT: Sam Carrington, Joseph Kurien, Mags Darms

Key discussion points:

- Discussed actions from previous meeting. Reviewed 1V91CC path interaction.
- 4E29 conflicts noted at Darlington. Considered 5H84LR, 1H84LR, 1V58XC interactions at NCL, Prestopans, Ferryhill. 1P72GT, 0E15GA was modified to see whether the conflicts occurring at Northallerton could be solved. 1V91 was put at platform 10, to see impact, 4D08GY would cause conflicts with modifications further on.
- Sheffield Platforming was assessed, with 4095CA, 4M03FZ, for platform 8 availability. 1S14LN was modified with changes to dwell at Doncaster to resolve platform issues and pathing was added back. Overlapping issues with platform 7 at Sheffield were also discussed followed by changes to dwell at Derby approaching close to Landor Street. Derby to Edinburgh to be completed before heading closer to the boundaries.

Actions:

- 2N20QQ turnaround to be reviewed, 6E54GP variation noticed with ATT version, Toby to send F3 print.
- 4D08GY between Skelton Jn and York, to get through yard around 12:20. 4D08GY solution crossing junction on same time to be reviewed and to review rights. ATT to work on it.
- Platforming at York to be reviewed, with 1N08 to perhaps use platform 5. To be looked by Toby and ATT.
- ATT to check access rights of 4M03FZ, based on the 13:00-13:20 window based on Thryberg and Sheffield opportunity.
- ATT to review 1V91CC between Doncaster, Swinton considering 1Q50GC, 1O1ED, platform 3,4 and 1.
- Review 2N20QQ turnaround, modifying dwell at NCL and a minute away from Heaton might resolve. To be looked by ATT.
- 6M82FB (y path) to be reviewed by ATT- conflict around Stenson Jn

G.04.04 19th March 2024

Participants:

- Alliance Rail: Toby Hart
- ATT: Sam Carrington, Jude Kalubi, Mags Darms, Ildi Mikula

Key discussion points:

- Reviewed the new times for 1V67BB: conflicts at York station to be revisited to keep the times at Doncaster.
- Reviewed the new times for 1V93BB: two conflicts remain in the ECML ESG.
- Started looking at the last northbound path, conflicts around York station and with freight at Dore South needs looking at.
- Revisions for the northbound paths to be sent potentially by Friday(22nd)
- The 15:27 path is not progressed for now until Toby/Ian has discussion with XC and including a northbound path.

Actions:

- ATT to continue to assess the southbound paths (1V91, 1V99). Re-visit York for 1V67.
- Toby: Revisions of northbound paths EOD Friday.

G.04.05 21st March 2024

Participants:

- Alliance Rail: Toby Hart, Ian Yeowart
- ATT: Sam Carrington, Ildi Mikula, Jude Kalubi

Key discussion points:

- confirming that Toby has sent over some of the other paths and that we have loaded them into the timetable
- discussion around the solved 1Q issue of the service running earlier in June 24 database
- discussed 1V99CC alternative path and what its running into

Actions:

- ATT: assess new times of southbound trains in the June 24 and ECML databases.
- Toby: flex suggestions for the northbound paths in the ECML.

G.04.06 26th March 2024

Participants:

- Alliance Rail: Toby Hart, Ian Yeowart
- ATT: Sam Carrington, Ildi Mikula, Mags Darms

Key discussion points:

- Discussed York platforming specifically for the northbound services, regular clash with the Blackpool service. Tried replatforming services, no solution identified.
- Discussed the retime XC 1200 departure from Derby path 15 minutes later from Derby, effectively taking the 12:00 slot it uses between Derby and York. (hydra path from Birmingham to York) worked through the Alliance schedule as well as XC, there are outstanding conflicts still. Meeting between AR and XC has not happened yet at this stage.

G.04.07 28th March 2024

Participants:

- Alliance Rail: Toby Hart, Ian Yeowart
- ATT: Sam Carrington, Ildi Mikula, Mags Darms

Key discussion points:

- Talked about the proposed retime
- Started to look into Wales ESG and June 24 on the southbound paths, follow on from 21st March.
- Discussed new 1V99 and 1V91 (30minutes later from Edinburgh) and the conflicts 2T and 1V services between Cheltenham and Gloucester.
- Considered retiming the XC service but this caused further knock-on to other services at Bristol.
- Looked at issues with northbound services, started exploring 1S91 to depart between the Ebbw Vale and Cheltenham services.

Actions:

- ATT: continue with 1S91 to confirm if solution works. Send over conflicting services information on every schedule as is present.
- Toby: send over solutions to the 5th southbound path.

G.04.08 2nd April 2024

Participants:

- Alliance Rail: Toby Hart, Ian Yeowart
- ATT: Ildi Mikula, Mags Darms

Key discussion points:

- Briefly ran through 1S91 in the Wales ESG and the related flexes, now departs 16:06 instead of 16:15.
- Discussed the 5th southbound path (1V41) starting with freight conflicts between Derby-Birmingham
- Ran through other freight conflicts on the ECML to which no obvious solution found, discussed that these trains have had problems in the ECML.
- Discussed on remaining issues and what to prioritise, York platforming versus Wales ESG/June database (Cardiff-Birmingham)

Actions:

- ATT: collate outstanding issues on 1V41 and send spreadsheet again with these plus the update in 1S91.
- Toby: look into York platforming and Wales-Birmingham and send over before end of the day/next day.
- ATT advised that it is unlikely to have the opportunity to implement any changes before output on the 4th April.

Appendix 2

Competing-Complex Access Applications – Alliance Rail, Performance Commentary at Key Locations

Cardiff Central

In the December (Dec) 2023 timetable (TT) performance at Cardiff Central was below the national On Time Working Timetable (WTT) performance, 65.2% nationally compared to 55.7% at Cardiff Central. This location had an On Time WTT % of 55.7% with CrossCountry performing at 56%, Great Western Railway (GWR) 52% and Transport for Wales (TfWRL) 56.6%. Comparably in the June 2024 timetable Performance at Cardiff Central is still below the national On Time WTT performance, 61.9% nationally compared to 51.5% at Cardiff Central. This location had an On Time WTT% of 51.5% with CrossCountry performing at 55.6%, GWR 51.8% and Transport for Wales 51.3%. Transport for Wales has the most services operating at Cardiff Central in both timetables.

Cardiff Central performance by hour in Dec 2023, shows decremental performance as the morning peak has On Time performance drops from 71.6% 0600-0659 to 54.7% 0700-0759. There is slight recovery during the day, between the morning and evening peaks as performance improves to 61.7% at 1400-1459. As the evening peak starts the performance decreases to 42.8% 1700-1759 then recovering gradually. Similarly in June 2024, performance shows decremental performance but performs better than Dec 23 in the morning peak with On Time performance dropping from 87.4% 0400-0459 to 65.2% 0600-0659. There is slight recovery during the day, between the morning and evening peaks (0700 – 1300) as performance improves to 57.1% at 1400-1459. June 24 evening peak performs the same as Dec 2023 decreasing to a low of 42.5% 1700-1759 then recovering gradually.

In both Dec 2023 and June 2024 congestion delay shows that Cardiff Central itself, Marshfield > Cardiff Central and Pontyclun <> Cardiff Central suffer the most reactionary delay attributed to delay caused by late running services. In Dec 2023 the most prominent flows involved are Transport for Wales Cardiff Central to Swansea 2B services and Ebbw Vale Town to Cardiff Central 2N services impacting the Transport for Wales Cheltenham Spa to Maesteg 2L services respectively. Within June 2024 the most prominent flows involved are Transport for Wales Aberdare Platform 2 to Merthyr Tydfil 1M services frequently impacting the Transport for Wales Cardiff Central to Treherbert 2T services. Also, the transport for Wales Barry Island to Bargoed 2D services impacting the Transport for Wales Aberdare Platform 2 to Merthyr Tydfil 1M services

In summary, performance at Cardiff Central in both timetables deteriorated from 0700, with a slight improvement during the day and dropped during evening peak. During 1400-1459 performance improves in both timetables from the morning peak. Both evening peaks have a drop in performance to 42.5% & 42.8% 1700-1759.

Newport

In Dec 2023 timetable Performance at Newport is below the national On Time WTT performance, 65.2% Nationally compared to 50.9% at Newport. This location had an On Time WTT % of 50.9% with CrossCountry performing at 56.3%, GWR 43.7% and Transport

for Wales 57.9%. Comparably in June 2024 Performance at Newport is below the national On Time WTT performance, 61.9% Nationally compared to 48.7% at Newport. This location had an On Time WTT % of 48.7% with CrossCountry performing at 53.7%, GWR 42.8% and Transport for Wales 54.2%. GWR has the most services operating at Newport in both timetables.

Newport performance by hour in Dec 2023, shows decremental performance as the morning peak has On Time performance drops from 79.1% 0500-0559 to 63.6% 0600-0659. The performance fluctuates during 0900-1459 with the performance alternating between 43-44% and 53-54% every hour, then the performance drops during the evening peak, with a 36.3% during 1700-1759, with no recovery until 2200. Similarly in June 2024, performance shows decremental performance as the morning peak has On Time performance drops from 80.6% 0500-0559 to 63.2% 0600-0659. The performance fluctuates during 0900-1559 with the performance alternating between 42-44% and 50-53% every hour, then the performance drops during the evening peak, with a low of 37.2% during 1700-1759, with no recovery until 2100.

In both Dec 2023 and June 2024 Congestion delay shows that Marshfield < > Newport and Llanwern West Jn > Newport suffer the most reactionary delay attributed to delay caused by late running services. The most prominent flows involved are Transport for Wales and CrossCountry services impacting other Transport for Wales and CrossCountry services. The Dec 2023 most prominent flows causing congestion are the Transport for Wales Manchester Piccadilly to Cardiff Central 1V services and the CrossCountry Portsmouth Harbour to Cardiff Central 1F services impacting each other. The June 2024 most prominent flows causing congestion are CrossCountry Portsmouth Harbour to Cardiff Central 1F services frequently impacting the Transport for Wales Newport to Ebbw Vale Town 2N services. Also, similarly as per Dec 2023 the Transport for Wales Manchester Piccadilly to Cardiff Central 1V services impacting the CrossCountry Portsmouth Harbour to Cardiff Central 1F services.

In summary, performance at Newport decremented in both timetables from 0500, with an hourly fluctuation during the day and a further drop during evening peak with no recovery until 2200 in Dec 2023 and 2100 in June.

Gloucester

In the Dec 2023 Timetable Performance at Gloucester is below the national On Time WTT performance, 65.2% Nationally compared to 49.3% at Gloucester for the Dec 2023 timetable. This location had an On Time WTT % of 49.3% with CrossCountry performing at 44.3%, GWR 53.5% and Transport for Wales 37.8%. Comparably in June 24 Performance at Gloucester is below the national On Time WTT performance, 61.9% Nationally compared to 49.1% at Gloucester for the Dec 2023 timetable. This location had an On Time WTT % of 49.1% with CrossCountry performing at 43.3%, GWR 53.1% and Transport for Wales 38.9%. GWR has the most services operating at Gloucester in both timetables.

Gloucester performance by hour in Dec 2023, throughout the day, deteriorates from 0900 to 43.1% between 1100-1159 with slight recovery between 1200-1259 until the evening peak where performance drops to 36.1% between 2200-2259. Similarly in June 2024, throughout the day, performance deteriorates during 0500-0959 from 86.1% to 45.3% On Time WTT%, it then recovers slightly during the off-peak time and drops again the evening peak where the performance drops to a low of 33.4% during 2000-2059. Both Timetables recover from 2300.

In Both Dec 2023 and June 2024 congestion delay shows that Gloucester itself, Standish Jn <> Gloucester and Barnwood Jn > Gloucester suffer the most reactionary delay attributed to

delay caused by late running services. In Dec 2023 most prominent services involved are the GWR services impacting other GWR services. The GWR Cheltenham Spa to Paddington 1L service frequently impacted the GWR Paddington to Cheltenham Spa 1G services. Also, the GWR Paddington to Cheltenham Spa 1G services frequently impacted the GWR Bristol Temple Meads to Worcester Foregate Street 2E services. In June 2024 the most prominent services involved are the GWR and Transport for Wales services impacting other GWR services. The GWR Cheltenham Spa to Paddington 1L service and the Transport for Wales Maesteg to Cheltenham Spa 2G services both frequently impacted the GWR Paddington to Cheltenham Spa 1G services.

In summary, performance at Gloucester within Dec 2023 starts to deteriorate from 0900 till noon, with a slight short recovery and then a performance drop during evening peak. Similarly In June 2024 performance at Gloucester starts to deteriorate earlier during 0500-0959, with a slight short recovery and a performance drop again during evening peak. Both timetables start to recover from the evening peak from 2300.

Western route continues to undertake its analysis of interacting access rights applications through the Gloucester area, and in doing so, Western continues to assess each headcode against performance data where it exists. Where services are deemed to be contributing towards the route's On-time target, Western's support is considered alongside other considerations.

Birmingham New Street

In the Dec 2023 Timetable Performance at Birmingham New Street (BHM) is below the national On Time WTT performance, 65.2% nationally compared to 46.9% at BHM. Performance at BHM had an On Time of 46.9% overall. Avanti West Coast had an On Time of 38.4%, CrossCountry 39.9%, Transport for Wales 37.2% and West Midlands Trains 51.8%. Comparably in the June 2024 Timetable Performance at Birmingham New Street (BHM) is below the national On Time WTT performance, 61.9% nationally compared to 42.9% at BHM. Performance at BHM had an On Time of 42.9% overall. Avanti West Coast had an On Time of 36.6%, Caledonian Sleeper 0%, CrossCountry 35.5%, Transport for Wales 32.3% and West Midlands Trains 47.7%. West Midlands Trains has the most services operating at BHM in both timetables.

BHM performance by hour in Dec 2023 dropped during 0500-0859 from 76.7% to 38% On Time WTT%. Similarly in June 2024, BHM performance by hour deteriorates during 0500-0859, from 73% to 37.5%

Both Timetables improves slightly during the day off peak and drops again during the evening peak, 1700-1959, with a performance below 35% and a gradual recovery from 2000.

Congestion delays for both Dec 2023 and June 24 show that BHM itself and Galton Jn > BHM suffers the most attributed reactionary delay caused by different late running services. The most prominent services involved are West Midlands Trains impacting other West Midlands Trains services. The West Midlands Trains Walsall to Wolverhampton 2W services frequently impacted the West Midlands Trains Birmingham International to Rugeley Trent Valley 2H services. Also, West Midlands Trains Wolverhampton to Walsall 2A services frequently impacted the West Midlands Trains Liverpool Lime Street to BHM 1G services.

In summary, both timetables at BHM shows a dropping performance during the morning peak with a slight recovery during the days off peak and drops again during the evening peak then gradually improves from 2000.

Derby

In the Dec 2023 timetable Performance at Derby is below the national On Time WTT performance, 65.2% nationally compared to 48.9% at Derby. This location had an On Time WTT % of 48.9% with CrossCountry performing at 50.5% and East Midlands Railway (EMR) 47.9%. In the June 2024 Timetable Performance at Derby is below the national On Time WTT performance, 61.9% Nationally compared to 47.4% at Derby. This location had an On Time WTT % of 47.4% with CrossCountry performing at 51% and EMR 45%. EMR has the most services operating at Derby in both timetables.

Derby performance by hour, throughout the day, deteriorates during 0500-0959 from 78.9% to 47.3% On Time WTT% with slight recovery during 1400-1559 before deterioration in the evening peak with a performance at 30.5% during 1700-1759. Similarly in June 2024 Derby performance by hour, throughout the day, deteriorates during 0600-1259, from 77.9% to 41.3% On Time WTT% with recovery in the early afternoon, then dropping further during the evening peak, with low at 30.8% during 1700-1759 and recovering gradually throughout the evening.

In both Dec 2023 and June 2024 Congestion delay shows that Derby itself, Derby <> Sheet Stores Jn and Derby <> Ambergate Jn suffer the most reactionary delay attributed to delay caused by late running services. The most prominent services involved are EMR services impacting other EMR services but also CrossCountry services impacting EMR services. The EMR St Pancras to Sheffield 1F services frequently impacting and the EMR – Nottingham to Matlock 2A services. Also, the EMR Nottingham to Matlock 2A services frequently impacting the EMR St Pancras to Sheffield 1F services.

In summary, Dec 2023 at Derby shows a deteriorating performance during 0500-0959 with a slight recovery during early afternoon and drops again during the evening peak. In summary, Derby shows a deteriorating performance during 0600-1259 with a slight recovery during early afternoon and drops again during the evening peak. Both timetables have gradual recover in the evening.

Sheffield

In the Dec 2023 Timetable Performance at Sheffield is below the national On Time WTT performance, 65.2% nationally compared to 51.8% at Sheffield. This location had an On Time WTT % of 51.8% with CrossCountry performing at 34.4%, TransPennine 44.1%, Northern 58% and EMR 43%. Comparably in the Jun 24 Timetable Performance at Sheffield is below the national On Time WTT performance, 61.9% Nationally compared to 50.5% at Sheffield. This location had an On Time WTT % of 50.5% with CrossCountry performing at 35.1%, TransPennine 43.6%, Northern 55.9% and EMR 43.1%. Northern has the most services operating at Sheffield in both timetables.

Sheffield performance by hour in Dec 2023 throughout the day, deteriorates during 0400-0859 from 93.8% to 45.1% On Time WTT% and slightly fluctuates throughout the day and drops further during the evening peak to a low of 43.2% during 2000-2059, and recovers gradually. Similarly in June 24 the Sheffield performance by hour deteriorates from 0500-0859, 84.9% to 47% On Time WTT% and remains stable throughout the day and drops again during the evening peak, with a low at 37.6%, during 1800-1859, with no recovery until 2300.

In both timetables congestion delay shows that Sheffield itself, Dore Station Jn > Sheffield

and Meadowhall > Sheffield suffer the most reactionary delay attributed to delay caused by late running services. The most prominent flows involved are TransPennine services impacting Northern services. The most prominent patterns of interaction involve TransPennine Liverpool Lime Street to Cleethorpes 1B services impacting both Northern Sheffield to Leeds and Nottingham to Leeds 2N and 1Y services respectively.

In summary, Dec 2023 Sheffield performance deteriorates during the morning peak, slightly fluctuates during the day, and drops during the evening peak and gradually improves. In June 2024 Sheffield performance deteriorates during the morning peak, remains steady and drops further during the evening peak with no recovery until 2300.

APPENDIX 3 - SUMMARY OF APPLICATIONS AT INTERACTING LOCATIONS AND STATUS

Operator/Application/Type	Status of Application	WCML	Birmingham	BHM-Derby	Derby-	Sheffield	ECML&Leed	Oxford	Gloucester	Cardiff
Alliance Rail Cardiff - Edinburgh 17	Live		x	x	x	x	x		x	x
Avanti 3rd SA 22a	Live	x	x							
Avanti 11th SA 22A	Withdrawn	x	x							
Avanti 14th SA 22A	Withdrawn	x	x							
Avanti 17th SA 22a	Live	x	x							
Avanti 18th SA 22a	Live	x								
Colas 10th SA 22a	Live			x	x	x	x			x
CrossCountry 38th SA 22a	Live		x	x	x	x	x	x	x	x
DBC 72nd SA 22a	Live				x	x	x			
DBC 73rd SA 22a	Live					x	x			
DBC 79th SA 22a	Live			x			x	x		x
DBC 81st SA 22a	Live		x	x	x	x	x	x	x	x
DBC 86th SA 22a	Live					x	x			
DBC 87th SA 22a	Live		x	x	x	x	x		x	x
DBC 88th SA 22a	Live				x	x	x			
DBC 83rd SA 22a	Live	x								
DBC 84th SA 22a	Live							x		
DBC 85th SA 22a	Live									
DBC 91st SA 22a	Withdrawn	x								
DBC 92nd SA 22a	Live									x
DCR 2nd SA 22a	Live	x	x	x	x		x	x		
DRS 17th SA 22A	Live	x	x	x	x	x	x		x	x
EMR 19th SA 22A	Live						x			
EMR 20th SA 22A	Live				x	x	x			
EMR 21st SA 22A	Live				x	x	x			
FLHH 24th SA 22A	Live	x						x		
FLHH 25th SA 22A	Live	x	x	x	x	x	x	x	x	
FLHH 26th SA 22A	Live				x	x	x			
FLHH 27th SA 22A	Live	x	x	x	x	x	x	x	x	x
FLHH 28th SA 22A	Live	x	x	x	x	x	x	x	x	x
FLIM 21st SA 22A	Live		x	x	x	x	x	x		
FLIM 22nd SA 22A	Live		x	x	x	x	x	x		
FLIM 23rd SA 22A	Live	x	x							
FLIM 24th SA 22A	Live	x	x	x	x	x	x	x		
FLIM 25th SA 22A	Live	x	x	x		x	x	x		x
FLIM 26th SA 22A	Live	x			x	x	x	x		x
GBRf 25th SA 22a	Live	x	x	x	x	x	x	x		
GBRf 34th SA 22a	Live	x	x	x	x	x	x	x	x	x
GBRF 41st SA 22A	Live						x			
Govia Thames Railway 62nd SA 22A	Live						x			
Govia Thames Railway 63rd SA 22A	Live						x			
Grand Central 24th SA 22A	Directed by ORR						x			
Grand Central 28th SA 22A	Live						x			
GWR 201st SA 22a	Live							x	x	
GWR 202nd SA 22a	Live								x	
Hull Trains 27th SA 22A	Live					x	x			
Hull Trains 28th SA 22A	Directed by ORR						x			
Hull Trains 29th SA 22A	Live						x			
LIS 2nd SA 22a	Live						x			
LNER 34th SA 22A	Live						x			
LNER 35th SA 22A May '28	Live						x			
LNER 36th SA 22A	Live						x			
LNER 37th SA 22A	Rights were being sought until Dec 2025 so not included in analysis						x			
LNER 38th SA 22A	Live						x			
Lumo 11th SA 22A	Live						x			
Lumo 12th SA 22A	Live						x			
Lumo London-Rochdale New Contract S17	Live	x								
Northern 57th SA 22	Directed by ORR (some of the access rights in this application were withdrawn before direction and added to the Northern 60thSA)				x	x	x			

Northern 59th SA 22a	Live						x	x				
Northern 60th SA 22a	Live						x	x				
Scotrail 49th SA 22a	Withdrawn							x				
Scotrail 50th SA 22a	Live							x				
Scotrail 51st SA 22a	Live							x				
Super Tram 11th SA 22a	Live						x					
TfW 28th SA 22a	Live		x	x						x	x	
TfW 31st SA 22a	Live									x	x	
TfW 32nd SA 22a	Live										x	
TPT 58th SA 22a	Live						x	x				
TPT 62nd SA 22a	Rights were being sought until Dec 2025 so not included in analysis							x				
TPT 63rd SA 22a	Live							x				
TPT 64th SA 22a	Live						x	x				
TPT 65th SA 22a	Live							x				
Varamis 2nd SA 22a	Live	x	x					x				
Virgin New Contract 17	Live	x	x									
WMT 22nd SA 22A	Live		x	x								
WMT 28th SA 22A	Live		x	x								
WMT 30th SA 22A	Withdrawn		x	x								
WMT 31st SA 22A	Withdrawn		x									
WMT 32nd (29th) SA 22A	Live	x	x	x								
WSMR New Contract 17	Live	x	x	x								