

Timetable Assessment (Weekend Paths)

This document examines the timetable proposals put forward by Alliance Rail for weekend services between London Euston and West Yorkshire in order to assess whether there is likely to be sufficient timetable capacity to accommodate the desired train paths.

The proposed services have been examined on a path-by-path basis against a base of the December 2011 timetable. Any conflicts with current services have been highlighted. The conflicts that have not yet been resolved have been described in detail in the following pages. In order to path Alliance's services there has been a need to re-time some other Operator's services – these have been listed where they affect calling times at stations or terminal times.

In the assessment that follows each train has been classified into the following categories:

- Paths that work without requiring further change are **Green (0 Up; 2 Down)**
- Paths that can be made to work through the contractual flexing processes are **Amber (17 Up; 9 Down)**
- Paths with issues that cannot at present be resolved but for which it may be possible to identify workable paths as part of a more wholesale timetable redrawing are **Red (5 Up; 9 Down)**

In some cases it has been necessary to omit station calls from some trains in order to find a compliant path – this has also been noted.

It should be noted that empty stock moves required at Leeds station and detailed platform validation at Euston and Leeds have not been completed as part of this assessment.

Leeds Trains (Saturdays)

1T56CH 06.30 Leeds – Euston

- 5B33GA needs moving at Huddersfield
- 2G02GD would probably need retiming 1 minute later (Timetable Planning Rules are not clear on this point)
- Potential platform reoccupation issue with 1O08CA at Macclesfield (technically compliant but looks tight)
- Runs through 1U22ES at Stoke on Trent
- Would need to arrive Euston 09:37 (not 09:29 as proposed) in order to find available path.

1T68CH 12.30 Leeds – Euston

- Clash with 2O71GD at Mirfield East Jn (possibly resolvable as per SX?)
- Tight margin/headway at Stafford/Stafford No 4 with 1O20CA (clash with 1M22 is easily resolvable)
- Delays 1M12EW by 2 mins into Euston
- Delays 1B27EW by 3 mins into Euston

1T72CB 14.30 Leeds – Euston

- Clash with 2O75GD at Mirfield East Jn (possibly resolvable as per SX?)
- Delays 1M14EW by 2 mins into Euston
- Delays 1B33EW by 3 mins into Euston

1T76CB 16.30 Leeds – Euston

- Clash with 2O79GD at Mirfield East Jn (possibly resolvable as per SX?)
- Clash with 2G51FB Huddersfield – Marsden
- Clash with 2F29FC at Stalybridge (but probably ok with proposed additional Stalybridge bay)
- Doesn't work between 1H35 & 2K24 at Cheadle Hulme
- (not yet checked any further as a result of the above)

1T78CH 17.30 Leeds – Euston

- Clash with 2O81GD at Mirfield East Jn (possibly resolvable as per SX?)
- Runs through 2K26FW Cheadle Hulme – Wilmslow.
- Headway with 1A66EW in Norton Bridge area
- Clash with 1H02FV at Colwich
- Two-track railway south of Hanslope – next available path (if any) is approx 25 minutes later

1T57CB 07.33 Euston – Leeds

- Two minutes in front of 1H62 0735 Euston-Man Picc from Euston – Milton Keynes Central. 1T57 can't go earlier due to following 0730 EUS-GLC on headway, 1H62 would need to leave 0736 and remove (½) at Weedon and (½) at Slade Lane Jn - seems to work OK
- (Assuming 1T90 07:13 (Alliance, ex Euston) isn't there)
- 1E69GF would need to be retimed later Diggle – Morley to follow – which would affect Grand Central's 1A63 (unsure so far whether this can absorb the pathing time).

1T61CH 09.36 Euston – Leeds

- Seems to work with just minor tweaks

1T65CH 11.36 Euston – Leeds

- Runs through 4M05FB at Attleborough and again Tamworth – Lichfield
- Headway issue with 1S29LB at Basford Hall Jn
- 1E81GF would need to be retimed later Diggle – Morley to follow

1T69CH 13.36 Euston – Leeds

- Runs through 4M87FA at Brinklow

1T73CH 15.36 Euston – Leeds

- Runs through 0H55FW Crewe – Sandbach
- Runs through 4H17FA Sanbach – Chelford
- Margin with 2H77FE at Guide Bridge

Leeds Trains (Sundays)

NOTE: Trains have been validated based on the exclusion of trains between 1st April to 24th June and 16 September to 2nd December, when there are period blocks on the route via Diggle. Alternative strategies for diversions may need to be considered during these period blocks should rights be granted.

1T67CB 12.47 Euston – Leeds

- Needs to be re-platformed onto platform 6 at Crewe and have adjustment approaching Crewe removed in order to remove platform re-occupation conflict at Crewe platform 1.
- Requires adjustment to 3S03FB path at Edgeley Jn No.2 to make it compliant through Stockport.
- Re-platformed onto 15A at Leeds to avoid clash with 1E84GF
- Assumes new layout at Stalybridge Station

1T71CB 14.41 Euston – Leeds

- Tightly timed at Crewe with 1F17FW which passes the Down Fast only 3 minutes (as opposed to the stipulated 4 minutes) after 1T71CB calls at platform 6 at Crewe.
- The solution includes re-platforming 1T71CB onto platform 5 at Crewe, while significantly re-timing Alliance 1T24CB.
- 1T24CB will need to be re-timed to call later at Crewe and have its stop from Rugby removed, for it to avoid a further conflict with 1A57EW later in its path. See note on 1T24CB.

1T75CB 16.41 Euston – Leeds

- Tightly timed at Crewe with 1F19FW which passes the Down Fast only 3 minutes (as opposed to the stipulated 4 minutes) after 1T75CB calls at platform 6 at Crewe.
- The solution includes adding 2 minutes of pathing time for 1F19FW approaching Crewe and removing the existing 1 minute pathing at Runcorn.
- This will increase the overall journey time of 1F19FW to 135 minutes, thus breaching its contractual right of 134 minutes. Therefore 1T75CB may not work without changing current contractual agreements on journey times.

1T77CB 18.41 Euston – Leeds

- Appears to be compliant under specified date assumptions.

1T79CB 19.31 Euston – Leeds

- Path not compliant as a result of headway breach while following 5H59FW between London Euston and Milton Keynes
- May work if 5H59FW can be retimed.

1T81CB 19.42 Euston – Leeds

- Platform occupation conflict at Crewe – move 1F22FW to platform 11 from platform 6

- Platform occupation conflict at Stocport – move 1M69FX to platform 4 at Stockport and run Slow Line between Adswood Road and Slade Lane
- Remove 1 minute pathing approaching Adswood Road and place this approaching Cheadle Hulme, then place ½ minute approaching Adswood Road
- Compliant after changes

1T58CB 07.56 Leeds – Euston

- Headway conflict at Wembley Central with 2O35BR (3 minutes as opposed to 4 minutes on the Slow Lines).
- Solution requires ½ minute of pathing time approaching Wembley Central and ½ minute approaching Camden Jn to make this train headway compliant through this section.

1T62CA 09.30 Leeds – Euston

- Tightly timed at Crewe while following 1G51EX.
- Solution requires removing 1 minute pathing time at Bashford Hall Jn and adding this minute approaching Crewe.
 - Another 1 minute of pathing time is also required at Colwich to avoid conflict with 1A12EW.
 - Remove ½ minute pathing at Lichfield and Tamworth.
 - Add another minute of pathing approaching Amington Jn and remove 1 minute approaching Nuneaton.

1T66CA 11.30 Leeds – Euston

- Headway conflict at Heaton Norris Jn with 1B76GA. Additional ½ minute required approaching Heaton Norris Jn.
- Solutions require ½ minute of pathing time for 2H02FB approaching Heaton Norris Jn and remove adjustment approaching Stockport for 2H02FB.
- Tight at Crewe while following 1G53EX. Remove 1 minute pathing at Bashford Hall Jn and add this 1 minute approaching Crewe.

1T66CB 11.30 Leeds – Euston

- Tightly timed at Alderley Edge while following 1V83DB. Requires another ½ minute at this location in order to be compliant.
- Solution includes adding another ½ minute to adjustment at Alderley Edge.
 - Reduce engineering time at Rugby Trent Valley Jn by 1 minute and arrive ½ minute earlier at Milton Keynes Central.

1T70CB 13.30 Leeds – Euston

- Additional ½ a minute required at Heaton Norris Jn as it's too tight while following 2H06FB.
 - Solution includes removing ½ minute adjustment at Alderley Edge.
- Depart Crewe 1 minute later to avoid headway conflict with 1M55EX.
- Reduce 5 minutes pathing time at Norton Bridge by 1 minute.

1T74CB 15.30 Leeds – Euston

- Same path between Stockport and Cheadle Hulme with 5F89FB

- Divert 5F89FB to turn back at Hazel Grove rather than Wilmslow. Stockport d 1636, Hazel Grove d 1650 to follow 1B83. Cross Edgeley 1702, re-platform 2H07FC to P3.

1T78CB 17.30 Leeds – Euston

- Headway conflict approaching Stockport with 2H0FC.
- Solutions require the following:
 - Move 2H04FC onto Fast Line at Slade Lane Jn and re-platform onto platform 1.
 - Move 5F83FC onto platform 1.
 - Move 1T78CB onto platform 0 and run on the Slow Line up to Adwood Road Jn.
 - Move 1V93DB onto platform 0 to avoid clash with 2H04FC during its turnround.
- Remove unnecessary 1minute in 1A78 approaching Watford
- 1A79 to run 1 minute later from MK as far as Willesden.

Bradford Trains (Saturdays)

NOTE: Some Up Bradford paths have headway issues at Rochdale with the ECS to work the Rochdale – Manchester Vic stopping trains – these will be overcome if the proposed bay platform is built; alternatively, some flexing of the Rochdale – Manchester Victoria trains, and the following Leeds – Manchester Victoria trains will be required.

1T31CH 10.18 Euston – Bradford Interchange

- Conflict with 4G16 Brinklow – Attleborough: pathing time in 4G16 adjusted. No affect on terminal times.
- Conflict with 4S49 Brinklow – Attleborough: pathing time in 4S49 adjusted. No affect on terminal times.
- Thorpes Bridge to Vitriol Works: Follows 2E31 at 3 minute headway (4 minutes required). Would work if 1T31 did not stop at Rochdale and 2E31 had pathing time bought forward from Mill Lane
- Castleden E Jn to Smithy Bridge headway issue – solution as above.
- Potential conflict with Grand Central 1A67, if this runs at 14.22 from Bradford Interchange (current path is 15.22 from Bradford Interchange).

1T35CH 12.34 Euston – Bradford Interchange

- Conflict with 1L97 at Stafford – 1L97 can cross to Slow Line at Norton Bridge instead.
- Conflict at Crewe with 1W21 – 1W21 would need retiming later into Crewe.
- Conflicts at either at Manchester Victoria East with 2F89FE or Miles Platting with 2M36FA – no solution identified.

1T39CH 14.36 Euston – Bradford Interchange

- Conflict at Norton Bridge with 1M49 (Penzance – Manchester Pic) crosses from DS to the Potteries 1 minute after 1T39 – 1M49 would have to be a minute later.
- Headway conflict between Dryclough Jn and Bradford with Grand Central 1D73. Any resolution of this leads to headway and platforming conflicts with Northern Rail trains in the Mill Lane Jn/Bradford Interchange area.

1T47CH 18.46 Euston – Bradford Interchange

- Alliance had suggested that this train would need to be retimed to leave at 18:36, but this would be too close to 1F25 (depart 18.34)
- 18.37 departure does not work, because of headway issue approaching Milton Keynes with following 1H73 (18.40 to Manchester); 1F25 would work at 18.33 from a planning point of view, but to meet its current contractual journey time of 134 minutes it must leave at 18.34.

1T12CA 09.18 Bradford Interchange – Euston

- Platforming issue at Manchester Victoria
- Conflict with TransPennine's 5F91 between Manchester Victoria and Earlestown (particularly at Ordsall Lane Jn)
- Conflict with 1L87EC at Winsford – no solution identified.
- Conflict at Colwich with 1H18FW – no solution identified.

1T16CA 11.18 Bradford Interchange – Euston

- Tight with 5F81 at Rochdale (which forms 2F81 12.04 Rochdale – Wigan Wallgate)
- 1B24 would need to be retimed 1 minute later Bletchley – Euston (new journey time would be 83 minutes, against a contractual maximum of 84)

1T20CA 13.17 Bradford Interchange – Euston

- Probably better to depart 13.18, by retiming 1B27 ½ minute later Bradford – Leeds.
- Even with the pathing time, it s still 1 minute sub-headway arriving Halifax – this looks to be resolvable by retiming later through to Manchester Victoria.
- Lack of time to get stock into platform to work 2F83 14.04 Rochdale – Wigan Wallgate.
- 1A47 needs 1 minute pathing time moving from approaching Rugby to approaching Crewe Basford Hall (no effect on overall journey time)
- 1A48 arrives 1 minute later into Euston
- 1B30 arrives 1 minute later into Euston

1T30CH 18.18 Bradford Interchange – Euston

- Conflict with 1M98 and 1C57 at Ordsall Lane Jn
- Would need serious retiming south of Hanslope due to 2 track railway – and would impact at least 4 minutes on 1M18.

Bradford Trains (Sundays)

1T12CB 08.37 Bradford – Euston

- Proposed solution for 5T12 would lead to it conflicting with 2T18. Alternative solution:
 - IT12 to start earlier at 08.35
 - 5T12 to depart Bradford 9 minutes later at 08.42; regains booked path at Halifax Reversing Siding
 - 2M02 to depart Bradford 3 minutes later at 08.48; regains booked path at Halifax
- Pathing time approaching Ledburn Jn moved to approaching Northampton
- Extra 1 minute adjustment time required for acceleration Ledburn Jn – Tring.

1T16CB 10.42 Bradford – Euston

- Headway issue at Halifax with 2T23 (as noted in Alliance commentary) – add pathing time to 1T16 and omit Todmorden call.
- (Pathing time approaching Crewe needs moving to approaching Winwick Jn – no effect on other trains)

1T20CB 12.42 Bradford – Euston

- Platform end conflict at Bradford Interchange with 2T14 – suggest running 2T14 earlier from Halifax.
- Headway issue with 2T27 (similar to issue noted from 1T16) - omit omit Todmorden call from 1T20.
- Some platform alterations will be required at Manchester Victoria
- Tight margin with 1H84 at Winwick Jn – problem can be solved by adding pathing time and omitting Winsford call.
- 1B42 will arrive Euston 2 minutes later (performance time should be approaching Wembley)

1T24CB 14.42 Bradford – Euston

- Platform end margin with 2T16 too tight
- Headway with 2T31 approaching Halifax is down to 4½ minutes (should be 6½)
- Solution to both of the above would be to start at 14.43 and add (1) pathing time approaching Halifax, with Todmorden call removed; 2T16 would need to run ½ minute later Bradford to Leeds.
- Tight margin with 1H86 at Winwick Jn – (½) pathing time can be added approaching Winwick and absorbed by reducing engineering allowance approaching Rugby (recent Rules revision has removed requirement for [5]). 1M14 requires (½) moving from approaching Crewe to approaching Winsford (no material effect).
- Retimed later between Winsford and Rugby and omits call at Rugby – this is to allow Alliance's 1T71 to run through Crewe (see 1T71 entry for further details).

1T28CB 16.42 Bradford – Euston

- Platform end margin with 2T36 too tight
- Headway with 2T35 approaching Halifax is down to 4½ minutes (should be 6½)

- Solution to both of the above would be to start at 16.43 and add (1) pathing time approaching Halifax, with Todmorden call removed; 2T36 would need to run ½ minute later Bradford to Leeds.
- Tight margin with 1H88 at Winwick Jn; resolved by adding (½) pathing time and reducing dwell at Crewe.
- As noted in Alliance commentary, 1A73 will need to run 1 minute later between Hilmorton and Euston.

1T32CB 18.42 Bradford – Euston

- Platform end margin with 2T40 too tight
- Headway with 2T39 approaching Halifax is down to 4½ minutes (should be 6½)
- Solution to both of the above would be to start at 18.43 and add (1) pathing time approaching Halifax, with Todmorden call removed; 2T40 would need to run ½ minute later Bradford to Leeds.
- Tight margin at Winwick Jn with 1H90 – resolved by adding pathing time approaching Winwick Jn and reducing pathing time approaching Norton Bridge.
- Solution suggested by Alliance between Camden and Euston (retiming of 2C49, 1M18 and 1A85) seems to work, but contractual journey times need clarification.

1T35CB 12.06 Euston – Bradford

- Conflict with 1M38 approaching Stafford – resolved by reducing [5] approaching Colwich to [1] (due to recent Timetable Planning Rules revision) and replacing by pathing time between Stafford and Crewe.
- 1T35's occupation of platform 1 at Bradford Interchange means 1B25 will need to be replatformed, and will need to arrive Bradford 1 minute later as a result (time regained by Leeds by reducing Bradford Interchange dwell and removing pathing time approaching Holbeck Jn).

1T39CB 14.06 Euston – Bradford

- Conflict with 1M46 approaching Stafford – move pathing time in 1M46 from approaching Norton Bridge to approaching Stafford Trent Valley Jn.
- Tight headway Weaver Jn – Warrington with 1S68. Add (½) to 1S68 and run later to Rutherglen East Jn, then as booked.

1T43CB 16.08 Euston – Bradford

- Conflict with 1M54 at Stafford - 1M54 can be retimed later through Stafford to avoid, without impacting its arrival time at Manchester.
- Headway too tight with following 1S82 approaching Warrington Bank Quay – 1T43 may need to omit a call at either Winsford or Warrington to correct.
- Northern Rail 1B33 would need retiming later between Bradford and Holbeck Jn, to take account of replatforming or platform sharing.

1T47CC 18.08 Euston – Bradford

- No issues found

1T51CC 20.28 Euston – Manchester Victoria

- Conflict with 0H80 Hilmorton – Hanslope – re-route 0H80 via Northampton, as per Alliance Rail suggestion.
- 1M19 & 1G91 will need to be replatformed at Stafford (but no effect on their overall journey times)
- 1T51 to have its engineering allowance approaching Colwich reduced from [5] to [1], and to remain on Down Fast through the Stafford area (was shown to run Slow Line from Milford & Brocton); this means 1T51 can arrive Manchester Victoria up to 5 minutes earlier.