Gareth Clancy Head of Access and Licensing, Office of Rail and Road LONDON E14 4QZ Email:

12 November 2020

Dear Gareth,

Grand Union Trains Section 17 Application between London and Carmarthen: Capacity and Performance Assessment

Please find attached Grand Union's comments on the letter forwarded to the ORR by Paul McMahon, Managing Director, System Operator, Network Rail on 30 October. We have also commented on the Network Rail responses listed in Annex 2, with Grand Union's comments in blue. Annex 1 contained a very selective 'timeline' produced by Network Rail, and Grand Union will provide a more comprehensive version under separate cover.

Grand Union questions that Network Rail has been working in 'good faith' as suggested in the letter. It stated clearly in its 'Western Congested Infrastructure' paper to OPSG on 11 September 2020 that it has always regarded Grand Union's application as competing with GWR's contingent rights. Nowhere in its representations to the ORR on 19 December 2019 or in any other responses did Network Rail state that position. Instead, at great cost, it has made Grand Union develop its timetable, but then having done so, has taken every opportunity to undermine that work and further delay the process.

As Grand Union has demonstrated previously, much of Network Rail's 'considerable effort' has had to be re-visited. Network Rail has consistently focused on finding reasons to reject the paths painstakingly developed until it has no choice but to work with us.

Grand Union will provide a more comprehensive timeline, which clearly shows that there has been no logical or methodical structure to Network Rail's work.

All of Network Rail's work has been driven by Grand Union, and the joint work (Grand Union / Network Rail) undertaken to finally agree Grand Union's paths only came about following complaints from Grand Union regarding initial poorly researched 'reports' prepared by Network Rail for the ORR.

In the detailed joint work the Network Rail and Grand Union train planners have worked well together, but Network Rail institutionally has consistently worked against supporting this Grand Union request for Track Access and offered no assistance to Grand Union, quite the converse as Grand Union has had to drive the process at every stage.

There has been no performance analysis undertaken so far. 'Static performance analysis' is simply Network Rail trying to look as if it has done something in relation to the requests it has ignored from the ORR going back as far as 17 March 2020. A 'generic' performance overview and a 'path variance

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report' (a new one on us – is it carried out for all new train paths?) is not even close to an adequate response. Despite having been advised by the ORR on 16 October of its need to supply a performance analysis by 30 October, possibly extended to 6 November, all Network Rail has so far managed to do is to state it will take 6-8 weeks or possibly 12, to produce a report, sending a further letter to the ORR on 6 November outlining its 'plans'.

It is quite clear that in the intervening 3 weeks Network Rail has undertaken no work on performance as required and would appear to regard ORR letters and instructions as mere distractions.

Network Rail has been hostile to this application from the very beginning.

We are not sure what the Coronavirus Pandemic has to do with Grand Union's application. Moreover we are not aware of any analysis that confirms that it is solely the reduction in the number of trains that has improved performance and suggest that the current reduction in the number of passengers may equally be a major contributory cause of the improved performance. From the content of the Network Rail remarks are we to see a reduction in Elizabeth Line/Relief Line services to address the 6.9% worsenment predicted in performance from their introduction?

Clearly Network Rail's view is to reduce the number of trains on the network to help it improve performance. This despite the fact it has had £billions of ORR approved taxpayer funds to increase capacity and now wants to 'protect it'. The ORR must not allow Network Rail to use the current crisis to ignore its responsibilities in an attempt to have a 'free hit' at the taxpayers' expense.

If Network Rail is allowed to get away with this position, it would entail the taxpayer once again being forced to invest significant sums back into the network to take the capacity back to where it was - despite having paid for it once already.

One of the major issues for Network Rail is that, after a quarter of a century, it still has little idea about the capability and capacity of its network, ignoring the tools that would enable it to get a better understanding. Additionally, and paraphrasing its own words, it has allowed ever more complex diagrams and working arrangements to develop across the network, with no understanding of their implications on performance.

Grand Union's application cannot go beyond the capability of the infrastructure enhancements when a compliant series of train paths, based on the December 2019 timetable, has been produced, and we have addressed the responses made by Network Rail in Annex 2 in the following pages.

Train Planning Rules (TPR) are there to manage the network and is the closest Network Rail comes to actually understanding its own network capability. Grand Union has used and compiled with the published TPRs, yet now Network Rail wants to change them after the event to prevent Grand Union gaining access even though its paths are compliant. As has also been shown during this exercise, a number of other operators trains are not TPR compliant, and yet Network Rail has made no attempt (prior to Grand Union's intervention) to address them to make them compliant or to suggest removing these services from the timetable.

It becomes ever clearer as Network Rail attempts to defend its untenable position that Grand Union has been measured against far higher standards than required of other operators.

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The timetable that Network Rail provided to Grand Union as the base for our timetable planning was found to have a significant number of errors and non-compliances already embedded within it. Looking at some previous GWR responses to consultation, it makes it clear that in the December 2019 timetable there was a significant forecast worsening in performance, although it had redacted the number, so we are not in a position to say by how much.

The December 2019 timetable had many non-compliances, including platform conflicts and yet Network Rail was content that despite showing a worsening in performance, which is hardly unexpected given the non-compliances, did not subject the operators to the same level of scrutiny or hold them to the same standards as they are applying to Grand Union.

In its current Western Event Steering Group (primarily to develop the Elizabeth Line timetable) timeline on a full concept train plan, Network Rail has identified 8 weeks to undertake performance work. Grand Union is only seeking 6/7 paths daily in each direction and yet Network Rail is stating it will take the same time or even longer to undertake performance work on Grand Union's small number of services. As has been made clear by the follow up letter from Paul McMahon on 6 November, Network Rail has still not even started this work.

Yours sincerely

Ian Yeowart -

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Annex 1 – timeline -

The timeline produced is very selective and in no way reflects the significant work and time that has - been undertaken by Grand Union since its initial Form OA submitted on 27 March 2019. -

A fuller timeline document is being created. -

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Annex 2: Responses to ORR Questions

Below are the more detailed responses to the specific questions set out in ORR's letter of 16 October

1. - Is Network Rail (NR) able to support the application, or any subset of the application? If NR cannot support the application, or parts of it, please explain with evidence for all areas it cannot support.

Network Rail cannot support the proposed services in GUT's application at present. The infrastructure enhancements on the GWML installed by Network Rail between 2010 and 2019 were specified to meet the passenger train levels applicable from the December 2019 timetable change for GWR and Crossrail (Elizabeth Line) train services. The application by GUTL goes beyond that capability.

This statement is simply incorrect. There is no indication in any of the documents supporting the investment of £billions of taxpayer funds that identifies that the infrastructure enhancements were only specified to meet the passenger train levels applicable from the December 2019 timetable and nothing further. This would have identified that the quantum of trains was absolute at that time and would have rendered any growth by any operator in any sector impossible.

Analysis of the proposed train slots shared by GUTL against the May 2020 timetable shows that 6 of 7 of the 'pairs' of train slots can be made to be Timetable Planning Rules (TPR) compliant through extensive flexing of other operator's services and the use of Line 2 out of Paddington in the up direction (annex 3: 'Grand Union Trains analysis Technical note') . GUTL and Network Rail worked collaboratively to develop the proposals in detail, demonstrating Network Rail's drive to progress the application. However, there are significant areas of concern remaining with the application and Network Rail cannot in good faith support the additional paths without satisfying itself as to the effect on the railway.

Through 'extensive flexing' Network Rail means flexing. This is the case with all further services planned to integrate into an existing timetable, and is as outlined in the Railways (Access, Management and Licensing of Railway Undertakings) Regulations (AMR). The very reason that track access contracts have moved to quantum only is to accommodate this type of work. Having asked for that change, Network Rail now appears to be complaining about the flexibility it has been given.

A number of services already operate on Line 2 (and Line 1 in the up), but once again Network Rail seeks to discriminate against Grand Union by setting standards it is expected to meet, while not setting those same standards for other operators or indeed itself.

Using a train plan provided by Network Rail to develop services and platforming, a significant number of non-compliances and platform conflicts had to be addressed before work could even get underway. It is estimated that over 60 changes had to be made to fix the timetable (including those made to fix and then accommodate Grand Union). This rather puts Network Rail's view of 'extensive flexing' into context. It should also be pointed out that any platform change is, by its very nature at least 2 changes, a position Network Rail chooses not to comment upon.

Some of Network Rail's comments are breath-taking in their audacity. Network Rail states: "GUTL and Network Rail worked collaboratively to develop the proposals in detail, demonstrating Network Rail's drive to progress the application". Network Rail produced a Report on 7 May 2020

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seeking to close off the Grand Union application. Grand Union complained and then responded in full on 9 June 2020. This led to a series of meetings which only then led to collaborative output.

It also appears that performance concerns introduced by other services is acceptable, irrespective of the extent.

There has never been any 'drive' by Network Rail to progress the application (witness the numerous missed ORR deadlines), and Grand Union does not accept that Network Rail has acted in good faith.

The areas which NR has considered when coming to its view are set out below. Further detail is also given in answer to specific questions from ORR.

TPR compliance

Six of the seven pairs of services can be made TPR compliant with extensive flexing of other operator's services and the insertion of pathing time, most notably between Ladbroke Grove and London Paddington. As a result some GWR services have extended journey times, with over 2 minutes pathing inserted, resulting services coming to a standstill. Where this currently happens in the timetable, negative performance impacts have been seen. NR does not believe any contract breaches will occur as a result of these alterations to other operator's services.

The remit for this work was to identify capacity at the station and not to look for timetable pathing solutions further afield. There are also numerous examples of UP services having in excess of 2 minutes approaching the area in the current timetable. The hourly service group from Plymouth has it in almost every one of its schedules. This response is another clear indication that Grand Union is being tasked to exceed standards that Network Rail is content to accept from others.

Network Rail has a responsibility as outlined in the AMR to ensure that any track access contract [framework agreement] "must not be such as to preclude the use of the railway infrastructure subject to that framework agreement by other applicants or services"

Paddington Platforming

A TPR compliant platform plan for Paddington has been worked through between NR and GUT which included 138 changes to services to work and use of Line 2 in the up direction to allow a compliant platforming plan for 5 pairs of GUTL's services (annex 4: 'GUT- Paddington Platforming Report DRAFT').

Network Rail does not make clear that once again a significant number of changes had to be made to the timetable during this work to address the large number of non-compliances and conflicts already in place. Many of the changes required had to be 'corrected' to enable the work to be undertaken. There are a considerable number of conflicts and non-compliances that remain in the timetable that was submitted for use to Grand Union.

The ARS system controlling Paddington overwrites all Line codes so line 2 is only used for down services and line 3 is used for up services. To override this the signaller will have to take control away from ARS every time the moves occur. NR does note that the Concept Train Plan being developed for ESG 5 (Crossrail) which was provided to GUTL contains similar moves. The CTP is a draft document which is in development by the ESG and the sub-optimal moves contained within it, such as using line 2 in the up, are being scrutinised. It is unlikely the wrong-direction

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moves on line 2 will be incorporated into the production timetable; the December 2020 SX timetable has two services routed up line 2, one can be rerouted to a different line and the other is a test train.

There is no clearer indication of discrimination than this comment.

Grand Union used the timetable as supplied by Network Rail which has numerous services using Line 2. Network Rail only now advises that it has all along been planning to change the production timetable for current services using Line 2. It is therefore rather obvious that the same work could be undertaken for Grand Union, but that Network Rail has no intention of doing so.

While it has now become clear that Grand Union's services will be part of the latest concept train plan, it is clear that Network Rail offers significant workstreams to incumbents that it will not offer to new applicants.

As part of the proposed performance analysis to be done on the compliant train plan Paddington platforming will be examined so the effects of using Line 2 in the up are more fully understood.

Why has Network Rail not previously undertaken performance analysis on what it states is a suboptimal timetable? Once again Network Rail is placing significant barriers in front of Grand Union that it has not placed in front of incumbents.

Was performance analysis done in this detail for the GWR 38th supplemental change that brought in the new timetable before it was agreed, we know it was not for the Elizabeth Line as that is being undertaken now? If it has, Grand Union would like to see the output. If it was not, why not?

Had Network Rail undertaken that analysis on the Elizabeth Line (with its emerging output), Network Rail could have objected right back at the Crossrail Bill stage to protect its interests.

It is also clear that Network Rail has not been prepared to do analysis on Grand Union's paths previously, and has instead waited until now to 'roll it up' into an overall analysis for its 'corrected' timetable.

Cardiff Central Platforming

Cardiff Central platforming has not yet been assessed in detail by Network Rail and GUTL as it is considered less of a constraint than Paddington platforming or the line capacity between Paddington and Cardiff. The train plan developed by GUTL and Network Rail is not compliant with the TPRs at Cardiff Central when overlaid onto the December 2020 timetable and significant flexing of other services is likely to be required to accommodate the GUTL trains.

The train plan developed between Cardiff and Paddington is compliant with the TPRs as outlined in the Network Rail Technical Note on capacity dated 24 July 2020. However, as noted elsewhere, a number of non-compliances and conflicts in the current timetable have also been identified.

It continues to be the case that Network Rail is approaching the entire Grand Union application in a piecemeal way as each issue raised by Network Rail is positively addressed by Grand Union. This is evidenced by the timeline. In summary, December 2019, Network Rail - 9 of 12 paths could potentially work. May 2020, Network Rail - no paths out of 14 work. After review, July 2020, Network Rail - 12 of 14 paths work. August 2020, Network Rail - Paddington platforms don't work.

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After review, Network Rail - October 2020 all Paddington platforming works. October 2020, Network Rail now raise Cardiff platforming as an issue.

Network Rail also has concerns about the stabling of trains at Cardiff if they require assistance along nonelectrified lines to a depot as this would create the requirement for additional paths and attaching/detaching at Cardiff. Network Rail is seeking to assess these concerns in the coming weeks, in line with timescales required to undertake performance modelling.

Grand Union has been involved in the Wales ESG for some time. The work being done here is the most collaborative of the meetings Grand Union is involved in. In its last reported output (extracts below) Network Rail identified the Grand Union services as being accommodated within the concept train plan. It also identified the potential paths for movements of Grand Union stock as ECS.

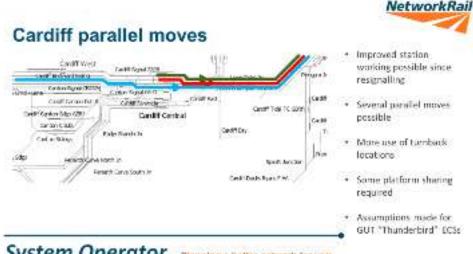
Potential standard pattern from Cardiff



Depart Cardiff	TOC	To.	
kx:00	GWII	Taunton	
ex:04 (atternate hours)	TFW	Manchester P	
kx:08	TEW	Cheltenham	
0:11	TfW	Ebbw Vale	
0018	GWR	London Paddington	
xx:25 (alternate hours)	GWR	Holyhead	
sx:30	GWR	Portsmouth Harbour	
cx:36 (some hours)	GUT	London Paddington	
42:45	CrossCountry	Nottingham	
KN:50	TÍW	Liverpool / Manchester P	
xx:54	GWR	London Paddington	

Would require some changes outside of geographic scope, e.g. GWR & GUT services east of Severn Tunnel

System Operator Planning a better network for you



System Operator Planning a better network for you

While Network Rail once again identifies Grand Union's services for discrimination, it is aware that - there are a significant number of new services proposed by others which as yet still have to have - a timetable developed. There are also a significant number of new and cascaded pieces of rolling -

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Requires some changes e.g. Ebbw Vale – Maesteg to run Relief Line from Ebbw Jn in evening

stock to be introduced for which route clearance is not yet established and for which stabling arrangements are still to be finalised.

Grand Union has no doubt the work within the ESG will identify solutions, but it appears that where Grand Union is concerned Network Rail requires assurances that it does not require of others.

Performance

Network Rail is not in a position where it can support the application as the impact on performance is not understood to the degree necessary. Where compliant train pairs can be demonstrated, there are flexes required to other operators and inherently risky operational movements, such as a reliance on using Line 2 in the Up direction at Paddington Station.

There is nothing in the Grand Union application that is unusual or not already undertaken by others. It is clear Network Rail did not 'understand' the performance implications when it agreed to a significant increase in Crossrail and GWR services, and yet for a relatively few, but nonetheless important, Grand Union services Network Rail has consistently cited performance as an issue. This despite the fact it accepts significant worsenment for others, and has, since March 2019 refused to carry out any analysis as required by the ORR on Grand Union's application.

At a system level, Network Rail has undertaken analysis work to understand the performance impact of high levels of congestion across the Great Western Mainline (annex 5: 'WCI OPSG position paper FINAL 4-9). There are concerns with increasing utilisation of infrastructure which, prior to the Covid-19 pandemic, was not a high performing railway. The infrastructure at that time was not supporting the full level of rights which have been sold on the route.

The paper is fundamentally flawed, and is purely based upon Network Rail's desire to step away from its commitments on capacity having spent £billions of taxpayers money in earlier control periods having made the case for capacity investment and having that case approved by the ORR. Covid 19 has given it an excuse that it is seeking to profit by.

The document contains 'information' of the trains running throughout the day, but this does not correlate with the actual data of trains running that Network Rail supplied to Grand Union. The very basic information in the paper is incorrect.

It also purports to show capacity utilisation, but it has already been established that Network Rail does not know the capability or the capacity it has on its infrastructure. The figures contained bear no resemblance to the trains operating and the headways (even at 4 minutes). Despite 3 requests Network Rail has still not advised Grand Union how the 'capacity utilisation' figures have been arrived at.

Grand Union also established quite early in the process that a significant number of freight services shown in the timetable had no rights, but even so Grand Union's services were developed with those services still in place. No mention is made of the rights position in that paper.

As more comprehensive response to question 2 Network Rail is proposing that detailed performance analysis of the timetable should take place now that TPR compliant paths have been identified for many of the proposed services. We are aiming to conduct the more detailed modelling which would allow us to answer ORR's question on PPM impact more

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comprehensively. This kind of modelling does take significant amounts of time to set up and carry out. It is likely that we are looking at a timeline of six weeks to complete such analysis. This will be confirmed in our follow-up to this correspondence by 6 November.

Network Rail has had since March 2020 to answer this question, and as can be seen by other work elsewhere, mainly in an ESG setting, performance analysis elsewhere is often undertaken prior to a developed timetable emerging. In the 2016 ECM decision process for example, Network Rail just gave a view that performance could be worse by up to 2%. It is clear that Network Rail has had many months to undertake this work, has not done so, but instead has used a piecemeal approach to try and reject Grand Union on a workstream by workstream basis.

TPR compliant paths were also identified and confirmed in July 2020, some 3 months ago. In the meantime, since the ORR letter to Network Rail of 16 October 2020, Network Rail has done absolutely no work in this area.

In the meantime, Network Rail has undertaken analysis based on actual train running (Path Variance Analysis), which is detailed in question 2 (annex 6: 'Grand Union Trains Path Variance'). The outcome of which has indicated that there are performance risks associated with four of the six pairs of trains for which compliant paths have been identified.

This is little more than a scoping exercise, undertaken in haste, and once again focused on Grand Union's small number of proposed services. What it does though is highlight that the current timetable clearly has a lot of deficiencies and does not meet the exacting standards Network Rail is trying to apply to Grand Union. Can Network Rail confirm it has undertaken such an exercise for other operators, particularly those with poorly performing services currently?

It appears no attempt has been made by Network Rail to understand the persistent lateness of some services, and in view of the significant non-compliances and platform end conflicts found in the timetable Grand Union was given to work with, it would be reasonable to expect that a number of non-compliances and platform end conflicts are also embedded in the current timetable, negatively impacting on performance.

Effect on other operator's services

Network Rail believes all the flexes identified are contractually allowed by the track access contracts in place, although this would be verified during the timetable production process and the Network Code applied as required. There are alterations required to other operator's services as a result of GUTL's trains. In particular GWR sees four of its services with journey times extended by between 2.5 and 5 minutes and six Heathrow Express services have journey times of over 15 minutes once they are flexed. Changes to GWR may impact on the business case of the GWML route modernisation. There are also platforming changes required at Paddington to accommodate GUTL's trains.

Network Rail is required to develop the timetable in line with its responsibilities as outlined in the AMR. It is noted that Network Rail has not identified that some GWR services are improved and that some of the journey time extensions are as a result of 'fixing' the timetable.

In respect of the minor changes to GWR services and any potential impact on the GWML route modernisation business case, is this the original business case for an £800million upgrade? It is

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hard to envisage that minor changes to journey times would have any impact when set against the significant £3-£4billion Network Rail overspend on the modernisation.

Network Rail has also overlooked, once again, the fact that Grand Union will be paying a significant premium to be on the route, a premium not paid by others. This will go some way in addressing any theoretical 'impact' on the route modernisation business case.

Specified Equipment

As set out in Network Rail's initial representations to the latest GUTL application, the Route Clearance processes have not yet concluded for the Specified Equipment (Class 91 Electric Locomotive, Mark 4 Driving Van Trailer and up to 9 Mark 4 Passenger Vehicles and Class 802 with up to 9 vehicles). Therefore, rolling stock compatibility has not been demonstrated throughout the route specified for all the rolling stock specified in the application.

GUTL has commissioned a gauging study and Electromagnetic Compatibility assessment as part of their progress towards demonstrating compatibility with the Network. We recognise that this is an ongoing process and does not insist that the compatibility process conclude before decisions on the sale of access rights conclude.

Grand Union has shared all the output with Network Rail as it has become available.

This work has been detailed, but it is clear that this work need not conclude prior to any rights being awarded, and the situation our colleagues at TfW have in respect of its own new and cascaded rolling stock is identical.

To reiterate the original representations, if the findings indicate that the rolling stock can demonstrate gauge compatibility with reduced or special clearances, then Network Rail would not support working to those, as this is likely to lead to increases in costs in maintaining the network. If the compatibility process determines that interventions are required to clear the vehicles for operation on the route, then it is incumbent on the proposer to engage with Network Rail on commissioning works to deliver the required capability.

Grand Union is aware of what the requirements might be in respect of any specific work required post gauging. Grand Union has been engaging with Network Rail since the beginning of this process.

2. - Please set out modelled performance impacts of the proposed services, in PPM terms. Please provide this per path where possible.

Network Rail has not yet been in a position to model performance impacts of the proposed services, as the capacity analysis has only recently been completed to the extent necessary to undertake meaningful performance modelling. Prior to the completion of the London Paddington platforming assessment (annex 4: GUT - Paddington Platforming Report DRAFT'), it was not clear whether the 6 trains in each direction, which were identified in the capacity analysis, could be platformed compliantly alongside existing train services. If modelling is undertaken using a timetable which is not Timetable Planning Rule (TPR) compliant, which is undeliverable with the existing infrastructure, then the outcome of any modelling is likely to indicate a significant deterioration in performance.

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Now that Network Rail and GUTL have determined that it is possible to include 6 trains in each direction between London Paddington and Cardiff alongside exiting quantum rights, it is seeking to undertake performance modelling which would provide an indication of the impact of those services. Network Rail anticipates that it will need to update ORR on the timescales for undertaking any such assessment by 6 November 2020. It is not going to be feasible to conclude such detailed modelling work within the timeframe set out by ORR.

We have been assessing the options available to undertake the more detailed modelling which would enable a projection of potential PPM impact. In summary the options assessed are:

- 1. Base work on Dec 2019 Timetable performance assessment:
- a. Existing Model Geography: Paddington to Bristol
- 2. Base work on Dec 2021 (Crossrail Phase 5 Concept Train Plan)
- a. Existing Model Geography: Paddington to Didcot
- 3. Bespoke assessment looking at whole application Paddington to Cardiff

a. Existing Models: Not available in entirety - time required to create a more complete infrastructure model

There is a trade-off to be made between time and accuracy across the different options available. Network Rail It is likely that we will be commissioning work to undertake modelling of the impact of GUT paths based on the geography modelled for the introduction of the December 2019 timetable. However, it comes with certain disadvantages, in that there are parts of the application beyond Bristol which would not receive the same level of modelling. To mitigate these, Network Rail will undertake analysis of the proposals, similar to the Path Variance Analysis included as part of this submission.

The path variance analysis is little more than a scoping exercise focused on a very small set of services in isolation. Clearly produced in great haste and with a pre-determined outcome in mind.

The range of timescales between the options is a lower range of six weeks for options 1 and 2, and an upper range of approximately 12 weeks for the bespoke assessment. These are reasonable timescales to deliver the kind of detailed modelling which is being described.

Grand Union will not go into the detail again, but would remind Network Rail that:

- It has done performance analysis on many other projects without this much 'detail'.
- It has had since March 2020 to advise the ORR on what it plans to do but has not done so.
- In its GWML ESG concept train plan it has allowed itself 8 weeks to undertake a full performance analysis in the gantt chart supplied, less time than is propped here for 6 pairs of trains.

Path Variance Analysis

As part of Network Rail's assessment of the latest proposals developed collaboratively with GUT, Network Rail has undertaken Path Variance Analysis (annex 6: 'Grand Union Trains Path Variance') of the 12 paths for which timetable compliant proposed train slots have been created. The assessment reviewed the train planned to operate immediately before the proposed GUT

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path. This analysis indicates the level of risk associated with each of the train slots in terms of whether they would likely be impacted by the train in front, and therefore increase or create additional reactionary delay. The outcome of which has indicated that there is a high risk associated with four of the six pairs of trains for which compliant paths have been identified. Two pairs of train slots have been identified as low risk in terms of path variance, this indicates further performance analysis of these slots will be beneficial to show the effects of the flexing and platform alterations required on performance

It is noted that 1L75 is pathed behind 1P22, which stops at Slough and then is followed on a twominute headway by 1A76. The two-minute headway is applicable to trains at line speed, which 1L75 will not be able to achieve due to catching up to 1P22 at Slough. A similar move currently exists at Maidenhead in the peak timetable which results in delay and further performance analysis is required to understand if a similar effect will be seen in this instance.

Grand Union has made previous comments about this new 'tool' being used by Network Rail, which is no more than a scoping exercise.

It is interesting however to note that despite Network Rail identifying "Two pairs of train slots have been identified as low risk in terms of path variance" that it still identifies that "this indicates further performance analysis of these slots will be beneficial to show the effects of the flexing and platform alterations required on performance". Even when Network Rail comes up with a positive for Grand Union it cannot help but then seek to further 'damage' the output.

3. - Please set out any impacts that NR believes the proposal would have on existing services (this should include all services that currently hold access rights, even if they are not running under the current reduced timetable). If NR is willing to support a subset of the application, please set out the impacts of this subset.

The capacity analysis report undertaken in July 2020 (Annex 3; 'Grand Union Trains analysis technical note') has indicated that there would be a requirement to introduce 36 significant flexes to existing services in accommodating 6 of 7 of the proposed Grand Union Trains services. A significant flex in this context is defined as a variation which would amend a passenger train service to depart origin or intermediate stations earlier or arrive at a destination or intermediate points later. It also includes a variation to a freight train service which would require an amendment to its departure slot.

The average variation of those significant flexes is 2 minutes per amended train, with a maximum flex of 6 minutes in one service. The consequential amendments required to be made to existing services in order to accommodate 6 of the 7 trains in the application have been assessed against the relevant contractual obligations, and all of the amendments would allow NR to deliver its obligations within the track access contracts with the affected TOC or FOC.

Network Rail is required to develop the timetable in line with its responsibilities as outlined in the AMR. It is noted that Network Rail has not identified that a number of GWR services are also improved and that some of the journey time extensions are as a result of 'fixing' the timetable.

4. - In discussions with ORR, NR agreed to forward further documents. Please forward all relevant documents that remain outstanding, including the performance report and platforming assessment.

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[Network Rail anticipates that this will be covered off by the reports prepared as part of the other queries]

Grand Union has not been made aware of these further discussions with the ORR. However, Network Rail has not fully responded to requests from the ORR on 17 March 2020 and 16 October 2020. It also did not finalise its response to the ORR that was required by the end of July 2020 to enable the ORR to make a decision in September 2020.

5. - Please provide full detail on the underlying and existing performance issues NR has identified in the draft performance work shared with ORR, with particular reference to the evening period in the Didcot area. How will the GUT proposal "exacerbate" these issues?

The report which is referenced in this query is the 'Grand Union Timetable Evaluation v2.0', which was undertaken as part of the evaluation of the previous proposal to operate trains between London Paddington and Cardiff / Llanelli. Many of the proposed train slots were subsequently amended and developed by Grand Union Trains and Network Rail as part of the capacity assessment which was shared with ORR in August (annex 3: 'Grand Union Trains analysis technical note'). However, as set out in Network Rail's response on performance assessments, Network Rail has undertaken an updated Path Variance analysis, which sets out a similar risk with several of the most recently developed train slots. The analysis indicates that 2 of 6 of the compliant train pairs have a Low risk of exacerbating reactionary delay in the timetable, as the train schedule they follow operate with a high level of right time operation, whilst 4 of the compliant train pairs have at least one train with a High risk of being impacted and exacerbate the likelihood of train delays.

Can Network Rail please provide the results of its 'path variance analysis' for other services on the GWML, particularly as it states so many services appear to suffer from reactionary delay.

The performance analysis undertaken as part of the position paper regarding GWML (annex 5: 'WCI OPSG position paper FINAL 4-9') indicates that there are challenges throughout the day between especially between Didcot and Wootton Bassett Jn, in particular during the PM peak where we see as low as 30% of trains arriving early or on time at Didcot Parkway and around the 40% mark for the same measure at Wootton Bassett Junction.

It has been proven there is capacity on the route. The issues arising would point to structural inefficiencies in the timetable, particularly as during Grand Union's work, many non-compliances and conflicts were identified.

6. - Is NR content with the ability to platform GUT services at Cardiff Central in Phase 1 and Phase 2. We note platforming analysis was not conducted as part of the Capacity Analysis. If any outstanding concerns remain regarding this, what are they and how do NR plan overcome them?

Network Rail has overlaid the most recent train plan developed by GUTL and Network Rail onto the December 2020 timetable. None of the proposed paths were able to be platformed compliantly. A solution for the platforming has not yet been developed and significant flexing of other services is likely to be required. This will be developed further during the course of the proposed performance modelling.

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NetworkRail

With a wholesale re-cast due in Wales, not least significant additional services (as yet not fully quantified) by others, why does Network Rail target Grand Union's services for performance analysis?

If it knew it would want to carry out this platform work, why did it not indicate that at the start of the process so a holistic approach could be taken.

This further demonstrates that from the beginning Network Rail has expected Grand Union to fail and has worked towards that end. Having overcome the capacity objections, then the Paddington platforming issues, Network Rail now seeks to further delay the process by requiring platforming compliance work at Cardiff.

Never before during an open access application has one company been required to undertake such an amount of specific work, had work undertaken in a piecemeal fashion by Network Rail, and been held to standards not required of others.

Use of class 91 electric traction is a concern as much of the railway around Cardiff Central is not electrified. The effect of this will depend on the stabling strategy for the trains; if assistance is required over non-electrified sections of the railway the additional paths and time for attachment/detatchment of the assisting locomotive will impact on the timetable.

As has been identified previously this is being addressed in a positive way via the Wales ESG of which Grand Union is a member.

Depart Cardiff	100	To:	 Would require some 	
xx:00	GWI	Taunton	changes outside of geographic scope, e.g. GWR & GUT services east of Severn Tunnel	
ex:04 (atternate hours)	TRW	Manchester P		
xx:08	TRW	Cheltenham		
11:00	TYW	Ebbw Vale		
KN(18	GWR	London Paddington	 Requires some change 	
xx:25 (alternate hours)	GWR	Holyhead	e.g. Ebbw Vale –	
xx:30	GWR	Portsmouth Harbour	Maesteg to run Relief Line from Ebbw Jn in evening	
xx:36 (some hours)	GUT	London Paddington		
42:45	CrossCountry	Nottingham		
KN:50	TÍW	Liverpool / Manchester P		
xx:54	GWR	London Paddington		

Detential standard pattern from Cardiff

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There are two capacity reports incorporating elements of the Grand Union Trains at Cardiff Central station which have either concluded or are in development. Neither has specifically looked to incorporate the services into the existing timetable, as both were looking at future timetable aspirations. Both studies indicate that there is capacity for GUT within the scope of the studies.

The Wales Event Steering Group for the development of proposals for Dec 2022 has included GUTL services. Whilst this work is ongoing, it is indicating that the proposed train slots can be

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included from a capacity perspective. The Event Steering Group has not undertaken any performance analysis work.

And when it does performance work, how will Network Rail differentiate Grand Union's limited service provision from the wholesale changes planned for this timetable?

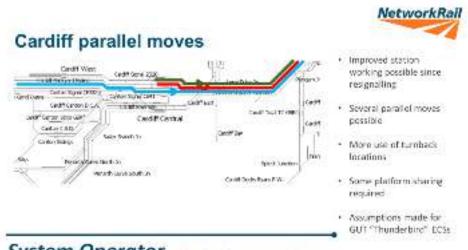
The second capacity assessment which include GUTLs services is the South Wales Continuous Modular Strategic Plan (CMSP) (annex 7: South Wales CMSP final report). This work was limited in scope to reviewing a small window in the development timetable, using the outputs from the capacity assessment 'Grand Union Trains analysis technical note'. Two of the GUTL services were included in the analysis in scope. They had platforms allocated to them as part of the assessment, but the services were incomplete in the sense that the ECS were not accounted for.

Is Network Rail stating that all other services therefore were complete with all ECS moves identified? I could not find that level of detail in the document provided.

Network Rail believes it needs to undertake a targeted exercise to gain confidence that sufficient capacity exists beyond Cardiff to accommodate the Phase 2 element of the application.

The Phase 2 element of the application is not due until December 2023 at the earliest, after the introduction of the December 2022 timetable being developed via the ESG. Network Rail need to explain why Grand Union's services are to be discriminated against by being the subject of a 'targeted exercise' when other proposals for expanded services are not.

The inference here is clearly that although it is a member of the ESG (although that in itself is not relevant), it is being subject to different standards than others in contravention of the AMR and competition law.



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7. - Please provide the Paddington Platforming analysis. What is the current position on the ability to accommodate GUT services in Paddington station?

Network Rail and GUTL have worked collaboratively to develop options for platforming at Paddington. The report has been shared with GUTL in draft (annex 4: 'GUT - Paddington Platforming Report DRAFT'), and GUTL have provided feedback on the report, which is being reviewed and considered by Network Rail.

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As outlined in the response to ORR question 1, it is possible to develop TPR compliant paths and platforming combinations at London Paddington. The challenge with the existing solution is the reliance on arriving on line 2 on the approach to the station. The ARS system controlling Paddington overwrites all Line codes so line 2 is only used for down services and line 3 is used for up services. To override this the signaller will have to take control away from ARS every time the moves occur.

Grand Union used the timetable as supplied by Network Rail which has numerous services using Line 2.

In order to develop the TPR compliant paths, the study has indicated that there would need to be 138 changes to services, which involve a combination of platforming, routing or flexing, are required to accommodate 6 of 7 of the proposed train slots in each direction. Some of the existing services would see journey and turnround time degradations in excess of 2 minutes whilst a substantial number seeing degradations below 2 minutes. Changing platform occupancy dynamics could introduce performance risk, although the extent to which this might impact on performance metrics has not yet been assessed.

Network Rail does not make clear that a significant number of changes had to be made to the timetable during this work to address the significant number of non-compliances and conflicts already in place. Many changes required to be 'corrected' to enable the work to be undertaken. There are a considerable number of conflicts and non-compliances that remain in the timetable that was submitted for use to Grand Union.

8. - Please provide evidence of how the proposed services increase reactionary delay and new services "amplify" delay. Please refer to operations and performance issues, not ticket acceptance and other commercial issues.

The wording in this query seems to draw from a report which was prepared as part of the previous application by GUTL to run services between London Paddington and Llanelli. The term "amplify" appeared in the passage, "The resilience of the train service has been analysed by looking at the recovery time within the journey and at the turnrounds. These are limited stop express services therefore if they lose their path this could amplify a minor delay into a more significant one if they end up behind a slower service." There is limited value in drawing reference from this report when considering the latest proposals developed by Network Rail and GUTL, as the majority of the proposed train slots are proposed to operate in different train slots.

The assessments undertaken as part of the updated Path Variance Analysis did indicate that there would likely be increases in delays in 4 of the 6 proposed train pairs as detailed in the response to question 2.

This is another example of Network Rail always using negative language in respect of all aspects of Grand Union's work and output. Grand Union has requested output of the various 'path variance analysis' that has been undertaken on other operator's services.

9. - Please provide updated Train Graphs, as included in the 7 May 2020 timetable evaluation in a legible format.

The Train Graphs referred to in this query relate to the report which Network Rail provided to ORR and GUTL in its evaluation of the previous section 17 application for operating services

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between London Paddington and Llanelli. The evaluation and development of the current Section 17 application has led to different paths being developed, many of which do not correspond to the paths which appeared in the Train Graphs which were shared in the report dated 7th May 2020. The Train Graphs presented in the report dated 7th May were outputs from a system which does not yet have the functionality to display a more legible train graph when the information is exported from the system.

There has never been any change in the development of paths to Cardiff whether Grand Union was going forward to Llanelli or Carmarthen. No timetable work has yet been undertaken beyond Cardiff. Paths have evolved during the process. Since its amended Form P of 19 July 2019, the entire focus of work by the parties has been on the paths between Cardiff and Paddington.

10. What impact do the revised timescales for the introduction of GUT services have on timetable planning process?

Grand Union Trains made the decision to withdraw a previous application to operate services between London Paddington and Llanelli from SCD 2021, and submit the current application starting in PCD 2021. This decision has meant that there was an opportunity to assess the new application in detail, allowing the impact of the train services of the initial phase of the application to be understood as part of advanced timetable assessments. Network Rail does not expect that the GUTL application will impact more broadly on the timetable planning process. GUTL is engaged with the necessary processes, such as the development of Timetable Planning Rules, in preparation to engage in the twice-yearly timetable development process for the December 2021 timetable.

11. What is the status of the additional GWR Bristol services?

Network Rail has undertaken a rights review with GWR regarding the London-Bristol 'Superfasts' in light of some of those services not starting to operate since they were introduced and granted access rights. Not all of the services were introduced in the December 2019 timetable change, due to the Programme Management Office (PMO) requesting that some of the services were not introduced to mitigate risks associated with the potential performance impact of a major timetable chance and the potential electrical interference of the vehicles being two of the key concerns.

Those services were due to be activated in the May 2020 timetable, however, owing to Covid-19, there has been a further delay to the introduction of the full quantum of services. GWR requested that the services which are not operating should be maintained in the timetable and the rights retained in the Track Access Contract until at least December 2021, when the operator is confident that the services will be required.

The DfT has approved the non-use of these services for the duration of the December '20 timetable owing to the COVID-19 related driver training restrictions. Network Rail has agreed to support this request and believes that it is in line with its obligations under Network Code Part J 4.

As previously stated, Grand Union had not submitted its application to take paths identified for these or other services. Indeed, the significant work undertaken by Grand Union was due to Network Rail insisting that Grand Union identified its own capacity. Since it has done that however,

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Network Rail has let it be known that from the very beginning it had always seen that GWR and Grand Union would be competing for capacity – even though they clearly are not.

In respect of the Bristol 'superfasts', Grand Union would point out it understands the services are to be operated in 5 car formation, and that 2 services operating together in 10 car formation would provide the same seating capacity but with a reduced resource requirement for GWR.

It is a point that has not been raised by Network Rail that these short trains would be using valuable capacity. If it eventually came to its decision criteria, Grand Union would expect Network Rail to apply it fairly, not only identifying Grand Union's increased seating capacity and service provision to Wales, which is less frequent than Bristol, but also to the fact it would receive almost £4million a year additional income from the Grand Union surcharge for operating on the route.

12. What is the latest progress on the Western Train Planning Rules Forum?

A report has been prepared by Capacity Planning using Observed Data Analytics ('ODA Sprint 71 Review: Cardiff Central - Didcot Parkway Headways)'. ODA is a technique for assessing the technical capability of infrastructure by using signal berth occupancy data. An outline plan has been developed for this information to be reviewed in conjunction with the relevant Timetable Planning Rules in these locations.

Initially Network Rail will be reviewing the headways between Pilning and Cardiff as part of the May 2022 rules. This will be followed by a review of the Didcot area. Operators will be involved in this process, as part of regular review forums which will include provision of the appropriate ODA data. In addition to this work, GUTL have been engaged in the TPR consultation on the Sectional Running Times for its proposed rolling stock in preparation for the PCD in December 2021.

Grand Union has been involved in current TPR work on the route and has made a number of suggested changes.

ODA work as outlined here by Network Rail is long overdue and will provide the technical detail that Network Rail requires to begin understanding its route. It may therefore ultimately understand its technical headways, which will make a significant difference in how Network Rail calculates its CUI and should therefore enable it to properly create a Framework Capacity Statement.

13. What is the current position on the Rules of the Depot work?

The information provided as part of the initial section 17 application did not entail specific details about the ECS and depot plans to support the services. To date, Network Rail and GUTL have not worked collaboratively on detailed plans for stabling and ECS arrangements. Network Rail is aware that Grand Union Trains is developing its proposals for where the vehicles are likely to be stabled and maintained. Network Rail will keep working closely with GUTL on its developing plans to ensure that any arrangements are operationally robust and deliverable.

This area will be developed once Grand Union has clarity on its application. Discussions are taking place with various bodies on train servicing provision and stabling, but those issues, as they are for colleagues at TfW, are yet to be finalised.

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14. What progress has been made on reviewing technical headways between Didcot and Cardiff? Are there any initial conclusions? How do these compare to planning headways?

See details of question 12.

15. Please provide answers to the questions below:

a. How is the service recovery process anticipated to be undertaken/amended at both the Western and Wales Route Controls following any introduction of an additional operator?

• There is currently a process in place whereby contingency plans are developed in collaboration with all of our Route Operators and these plans then form the basis of any service recovery should it be required. The plans are regularly reviewed and updated to reflect previous learnings and would be subject to a similar review in the event of a new operator being on the Route. This process has not yet taken place with GUTL.

Grand Union would expect the process to be in line with arrangements elsewhere on the network.

b. What policies are in place on this route regarding the Sale of Access Rights? Are there dates beyond which these will not be sold?

• There are no local supplements to Network Rail's Access Rights Policy currently in place affecting this line of route.

c. Will HS2 construction at Old Oak Common have an impact upon capacity? If so, what will the impact be on existing and potential future services?

• The latest plans indicate that Old Oak Common spoil will be transferred by road to Willesden, from where it may be transferred by Rail. Any HS2 train slots included in the timetable have been included in capacity assessments, and incorporated in a TPR compliant proposal. Network Rail is not aware of any construction plans at Old Oak Common which would affect the GUTL proposals

d. Will Western Rail Access to Heathrow construction and any subsequent introduction of services affect GUT services? What is the anticipated impact/effect of these on the GUT proposals?

• The plans for the construction and staging of Western Rail Link to Heathrow should not have significant impact either during construction or from the service introduction on the proposals put forward by GUTL. The way the works are planned to take place, it is not anticipated that there will be any temporary linespeed restrictions affecting mainline services on GWML. The introduction of services will not impact on GUTLs aspirations]

e. Stakeholders have expressed concerns that PAD-RDG, DID-SWI and STJ-CDF are all operating at capacity. Please confirm if this is the case, providing supporting evidence. Please link to other points regarding TPRs

Grand Union's conflict free timetable is clear evidence that it is not operating at capacity.

• The capacity studies undertaken to date have indicated that, whilst not all 7 trains in each direction can be accommodated compliantly with the TPRs, the capacity report 'Grand Union Trains analysis technical note' (annex 3), indicates that it is possible to create a concept train

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plan which has capacity for 6 trains in each direction between London Paddington and Cardiff. Network Rail's view is that those sections are operating at close to the theoretical maximum capacity, and already past the point at which high levels of performance can be maintained. In light of the anticipated applications for access over the next year, Network Rail is considering whether it must declare a section of the railway as Congested Infrastructure.. Some of the key performance considerations are set out in the report Network Rail shared with industry colleagues (annex 5: 'WCI OPSG position paper FINAL 4-9')

The paper contains 'information' of the trains running throughout the day, but this does not correlate with the actual data of trains running that Network Rail supplied Grand Union.

It also purports to show capacity utilisation, but it has already been established that Network Rail does not know the capability or the capacity it has on its infrastructure. The figures contained bear no resemblance to the trains operating and the headways (even at 4 minutes). Despite 3 requests Network Rail has still not advised Grand Union how the 'capacity utilisation' figures have been arrived at.

Network Rail does not know the capacity available or used on its network, theoretical or otherwise. ODA work (mentioned earlier) is long overdue and will provide the technical detail that Network Rail requires to begin understanding its route.

Grand Union also established quite early in the process that a significant number of freight services shown in the timetable had no rights, and it remains unclear how many of these services are still 'counted' by Network Rail in its CUI process.

f. SWA: is there capacity at the station for GUT services? If required, is there capacity to shunt trains to and from depot (both Maliphant and Landore)?

• Detailed analysis has not been undertaken to understand the current available capacity at Swansea station. The Wales Event Steering Group (ESG) is in place which will be assessing a number of proposals for the December 2022 timetable, which includes phase 1 of GUT specification. Additional work would need to be undertaken to understand the impact of the proposed extensions.

This work would be a natural outcome of the Wales ESG work.

g. A recent Network Change has been published relating to reinstating SWA platform 4 to full length. What impact does this have on accommodating GUT services? [see response to question 15f]

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