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1st December 2017

By to Email: david.reed@orr.gsi.gov.uk

Dear David,

Application for directions: proposed track access contract between Network Rail Infrastructure Limited and Great North Western Railway Company Limited

Thank you for your letter dated 17th November requesting our comments in response to Network Rail's representations. We have set out our response below:

1 General

Network Rail and Alliance Rail (Alliance) have worked well and in a constructive manner in developing this application. We have moved forward greatly in the area of timetabling and capacity. Our joint aim is to resolve the remaining capacity and performance concerns by the 22nd December 2017.

In this respect Alliance has engaged an independent timetable consultant to develop solutions to the outstanding issues. These will be passed to Network Rail shortly for review and hopefully agreement.

2 Specific comments on Network Rail's Representations

2.1 The Application Form P

We note Network Rail's comments regarding capacity and performance, however, both parties are working together to resolve any remaining issues. We are confident that these issues will be resolved prior to the 22nd December.

2.2 The Proposed Contract

2.2.1 Errors found in the contract

(a) The Effective Date – we agree this is incorrect and should read "Subsidiary Change Date in May 2019".

(b) Network Rail's address in Schedule 1 – This is the address which Network Rail previously agreed to in our earlier approved track access contract for GNWR. Please can Network Rail provide the correct address?

(c) Version of Model contract **–** Alliance has taken the latest contract which has been amended for open access.

2.2.2 Clause 3.8 Investment Conditions – For clarity we are investing three sums which we believe warrant a contract extension beyond five years. We are seeking a two year extension to our contract until the Principal Change Date in December 2026.

The investment is detailed below:

Investment	Comments	By when
Rolling Stock investment 1	£1.2m refurbishment	1st September 2019.
Rolling Stock investment 2	£1.2m refurbishment	1st September 2023.
Stations	£1.5m in station facilities	1st September 2023.

Our rolling stock will be refurbished twice in our contract term. We note Network Rail's concerns; the main difficulty seems to be around our initial rolling stock refurbishment and ensuring that we will not operate beyond five years with unrefurbished stock.

We would be happy to discuss a suitably worded clause for inclusion that captures our investment. For clarity this is to make certain that our stock is maintained to a high standard during the contract term and that key stations which we serve benefit from enhanced station facilities. We would invest in similar station projects as our sister company Grand Central has done (for example at Wakefield Kirkgate).

2.2.3 Calling patterns

Calling patterns are being addressed in the capacity assessment work. However, we do not believe there are any concerns with calls between Preston and Blackpool North.

In relation to the calls at Euston, Milton Keynes Central and Nuneaton. We now believe that the majority of these have been resolved in the capacity work to date.

2.2.4 The Specified Equipment

We note Network Rail's comments on the proposed rolling stock. We do however note that the statistics presented by Network Rail are for an IC225 set of 9 Mk 4 coaches plus a Mk4 Driving van trailer. The fleet that GNWR intend to use will be two coaches shorter. In addition we have listed in paragraph 5 of our application the modifications that are currently being made to improve reliability and performance including:

- Investment into Mk4 Static Converters (stat cons) to improve their reliability and system operational resilience
- Investment into Mk4 door modifications.
- Mk4 DVT parking brake modification
- Mk4 FDM rack overhaul.
- Class 91 pantograph camera fitment. (Allows detailed investigations into OLE incidents).
- Class 91 MPU Cards overhaul

In view of the fact that these sets will be a reduced formation (and thereby more power per tonne) and with reliability modifications we believe that the reliability and performance of our sets will be better than the historic data suggests. We also note that the ORR has approved access rights to Virgin Trains East Coast (VTEC) in May 2015. Part C of the schedule 5 of this contract is reliant upon short formed 225 sets (the same as GNWR). We note

that Network Rail did not raise any concerns regarding the use of these short formed sets.

We have also detailed areas in our application to underpin robust operational service provision. Our application details the following:

- In paragraph 4.2 “Adequacy” of our application we have highlighted the superior power availability for our rolling stock and its built in redundancy.
- Paragraph 5.1 of our application identifies the following key areas where we will work with the industry in the development of our proposals:
    - Contingency planning
    - Use of Thunderbird rescue engines
    - Right time railway principles
    - Use of on train monitoring equipment

We also attach a document in Annex A which was provided to Network Rail prior to our application to support the proposal at SoAR.

2.2.5 Capacity

Alliance and Network Rail have continued to work on capacity, and will shortly meet to close out the remaining issues. In summary the current position on capacity is as follows:

- Capacity is available in Euston station- agreed by Network Rail
- Euston to Winwick Jn – capacity agreed by Network Rail for the majority of services – only two clashes remain (both with solutions

identified by Alliance). These solutions are to be reviewed by Network Rail.

- Winwick to Preston – Alliance has assessed the capacity and has developed solutions using minimal contractual flex. This assessment shows that capacity is available. This work by our independent consultant will be passed to Network Rail shortly.
- Preston to Blackpool North – Network Rail has agreed capacity is available.

We note Network Rail's comments regarding capacity and performance, however, both parties are working together to resolve any remaining issues. We are confident that these issues will be resolved prior to the the 22nd December.

Yours faithfully

Jonathan Cooper

JP MSc BA(Hons) Dip M Dip BL Dip Law

Head of Contracts

Alliance Rail Holdings

Annex A

Arriva
London - Blackpool
Operational mitigations

1 Introduction

Arriva is seeking access rights between London and Blackpool utilising 110 mph rolling stock from the timetable starting May 2019. The formation of this train will be a class 91 plus 7 Mk4 trailer cars and a Mk4 DVT (225 units).

This document is a high level summary setting out our proposals and how we would work with the industry in order to deliver a robust and punctual service.

2 The rolling stock

2.1 Speed and power

The class 91s and Mk4s were built for the East Coast Main Line to operate regularly up to speeds of 140 mph without the need for tilt. The class 91 locomotive holds the British speed record at 161.7 mph. However, their operational speed currently does not exceed 125 mph.

The standard formation on the ECML is a class 91 loco, 9 Mk4 coaches and a Mk4 DVT. The locomotives are rated at 6480 horsepower and as such are the most powerful passenger locomotive in the UK. The table below shows the available horsepower per vehicle for a class 91 plus 7 Mk4s and a DVT when compared to Virgin West Coast's 390 sets

Class	91 and 7 Mk4 and a DVT	390/0	390/1
Hp per tonne	15	14.7	14.07

The above table clearly shows that the proposed 225 set formation by Arriva will mean that these sets will have more power available per tonne than any of the current fleet deployed on the WCML.

Arriva also notes that the class 225 units are capable of speeds in excess of 160mph but because of the restriction of non-tilt on the WCML they have been timed at 110 mph. This coupled with the shorter formation means that the units have a significant amount of redundancy built in, in terms of power and speed. Based on the 225 units current maximum speed of 125 mph the Arriva 225 fleet will operate 12% below its 125mph restriction speed and 21% below its 140mph design speed.

The Arriva 225 units with only 7 passenger cars have sectional running times broadly equivalent to a class 350 unit at 110 mph and a class 801 unit. These are speedy sets in terms of acceleration and braking and also in terms of top speeds.

2.2 Reliability

The class 225 units have in the past suffered from periods where they have been less reliable than they should have been. The latest figures reveal the MAA to be 12,691 miles per technical incident. This represents a slight dip in the miles per technical incident. However, the units are currently undergoing the following reliability investments:

- Investment into Mk4 Static Converters (stat cons) to improve their reliability and system operational resilience
- Investment into Mk4 door modifications.
- Mk4 DVT parking brake modification
- Mk4 FDM rack overhaul.
- Class 91 pantograph camera fitment. Allows detailed investigations into OLE incidents.
- Class 91 MPU Cards overhaul

3 Operations Mitigations

Arriva is an experienced player in the UK rail industry with six train operating companies. It is proposed that this new London to Blackpool service will become a flagship for the Arriva brand. Arriva will draw on its operational experience to develop robust train planning and robust contingency plans for when things go wrong. We will develop our operational plans in conjunction with Network Rail as a partner. We would develop our operational mitigations as set out below:

3.1 Contingency Planning

We will engage with Network Rail fully once we have access rights for our services. We recognise that during times of disruption a robust operational contingency plan will be essential in order to get the railway back to normal. We will be flexible in our approach on service recovery. We also intend to base our control management team within the LNW route close to Network Rail's control management teams.

3.2 Thunderbirds

We would like to work with Network Rail and other operators to develop diesel thunderbird assistance between London and Blackpool. We would like to explore the options available to us so that passenger disruption can be minimised.

3.3 Right time Railway

- The train plan developed for the London to Blackpool service is fully compliant with the train planning rules.
- All our rolling stock will be self-dispatched at stations thereby reducing the delay caused by station staff dispatch. Arriva currently employs self-dispatch methods on the ECML with its Grand Central services.
- All staff on our trains will be issued with radio controlled watches to ensure prompt departures.
- Train doors will close 30 seconds before departure
- Train turnarounds at terminus stations are planned to be robust yet efficient at around 40 minutes to allow train preparation
- When delayed trains impinge on this turnaround time we will seek ways to recover from this delay either by on train cleaning, terminating short, or additional crew.
- Regular briefings will be provided to our staff to ensure that they are able to respond to passenger enquiries and also to the operational requirements of the railway.
- Our staff will be empowered to make decisions quickly – we believe that this will allow quicker service recovery when things go wrong.
- All our trains will have real time display screens in each coach to guide our customers, particularly in relation to leaving the train in order to allow for a timely departure.
- Each train will have two customer hosts and a guard

3.4 On train equipment

The 225 units have a large luggage area in the DVT. In addition to the required safety and first aid equipment we will also seek to provide rescue couplings and point clips for use in emergencies. We would work with Network Rail to make sure that such equipment is provided where possible.

Our trains will also be fitted with on train monitoring equipment to monitor the reliability of the rolling stock, and where agreed, the infrastructure. We believe that there is a significant opportunity to monitor and examine the infrastructure by placing more on train monitoring equipment on board. We have held discussions with Network Rail in the past to look at ways to free up the new measurement trains time on the WCML. We would like to reignite this discussion and progress ways to improve on train infrastructure monitoring.

3.5 Staff

Our staff will be recruited from existing operators and from new recruits to the rail industry. A key aspect of our proposal will be to recruit staff with a 'can do' attitude.

We will work with Network Rail to develop operational solutions regarding bridge bashes, line side equipment failure, line side fires and trespass that are robust and allow quick service recovery. Our staff will be flexible and well trained in order to carry out other roles. We would like to discuss the opportunities that this could lead to and how this could work.

4 Depots and maintenance

Our crew and stock depot will ideally be Blackpool and Wembley or at Preston and Wembley. We are working with our industry colleagues to develop a suitable site.

The 225 units will be maintained by Arriva Train Care and these will be refreshed prior to passenger service.

5 Service introduction

Passenger services are due to commence during the May 2019 timetable with a full service being introduced from December 2019. We intend to begin shadow running to assist staff training as soon as train sets become available. We will develop our shadow running proposals after full discussion with Network Rail.