

EXPLANATORY MEMORANDUM TO
THE RAIL VEHICLE ACCESSIBILITY (NON-INTEROPERABLE RAIL SYSTEM)
(LONDON UNDERGROUND NORTHERN LINE 95TS VEHICLES) EXEMPTION
ORDER 2015

2015 No. 393

1. This explanatory memorandum has been prepared by the Department for Transport ("the Department") and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

2. **Purpose of the Instrument**

The Rail Vehicle Accessibility (Non-Interoperable Rail System) (London Underground Northern Line 95TS Vehicles) Exemption Order 2015 (the "Order") exempts specified rail vehicles operated by London Underground Limited ("LUL") from certain requirements of the Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations 2010¹ ("RVAR"). These are explained in further detail in paragraphs 7.3 to 7.12.

3. **Matters of special interest to the Joint Committee on Statutory Instruments**

3.1 The Rail Vehicle Accessibility Exemption Orders (Parliamentary Procedures) Regulations 2008 (the "2008 Regulations") govern how exemption orders such as this are to be made.² Under the 2008 Regulations, orders exempting rail vehicles from the RVAR without an expiry date, as is the case with this Order, would normally be subject to the draft affirmative resolution procedure. However, regulation 5(2) of the 2008 Regulations enables the Secretary of State, having regard to the particular circumstances and representations made by the Disabled Persons Transport Advisory Committee³ ("DPTAC"), to elect to make orders which would otherwise be subject to the draft affirmative procedure, using the negative resolution procedure instead.

3.2 The Secretary of State consulted DPTAC on the use of the negative resolution procedure to make the exemptions LUL applied for. This was because the grounds for two of the exemptions have been approved under the draft affirmative procedure on other LUL fleets (see paragraphs 7.7 and 7.11), another is only a technical non-compliance that does not reduce the ability of disabled people to travel (paragraph 7.8 below) while he considered that the fourth is only minor (paragraph 7.13). DPTAC was content with the use of the negative resolution procedure, noting that the Committee supports the proposal, currently before Parliament in the Deregulation Bill, that all such exemptions should be dealt with administratively rather than by Statutory Instrument. The Secretary of State has therefore decided to use this discretion and to

¹ S.I. 2010/432.

² S.I. 2008/2975, see in particular regulation 5.

³ DPTAC was established under section 125 of the Transport Act 1985 to advise the Government on the public passenger transport needs of disabled people.

allow this Order to be made using the negative resolution procedure.

4. Legislative Context

4.1 Section 46 of the Disability Discrimination Act 1995 (the “DDA”), now replaced by section 182 of the Equality Act 2010 (“EA 2010”), enabled the Secretary of State to make rail vehicle accessibility regulations to ensure that rail vehicles to which the regulations applied (“regulated rail vehicles”) conformed to standards and specifications which enabled disabled persons, including wheelchair users, to access such vehicles and to travel in safety and reasonable comfort. The Secretary of State made the Rail Vehicle Accessibility Regulations 1998⁴ (“RVAR 1998”) under section 46 of the DDA, which initially applied to all passenger rail vehicles that first entered service after 31st December 1998, and set the technical standards such vehicles were obliged to meet to facilitate use by disabled travellers.

4.2 In 2010 RVAR 1998 was revoked by RVAR. RVAR applied similar accessibility requirements (which had been updated in light of experience and progress in technology) to all passenger vehicles on light rail systems such as tramways and the London Underground. Passenger rail vehicles on national "heavy rail" lines have been subject instead to pan-European access requirements since 2008.⁵

4.3 Section 47 of the DDA (now section 183 of the EA 2010) enabled the Secretary of State to exempt certain regulated rail vehicles by Order from the requirements thereby authorising such vehicles to be used in passenger service even though they do not conform to some, or all, of the requirements of the RVAR 1998 (now RVAR). In accordance with section 183 of the EA 2010, exemption orders can include conditions and restrictions and a number of such orders have been made since 1998.

4.4 This Order is an exemption order made under section 183 of the EA 2010 and is being made to exempt specified rail vehicles, operated by LUL, from some of the requirements of the RVAR.

5. Territorial Extent and Application

This instrument applies to Great Britain.

6. European Convention on Human Rights

As the instrument is subject to the negative resolution procedure and does not amend primary legislation, no statement is required.

7. Policy Background

7.1 The policy objectives of the EA 2010 and RVAR are to ensure certain accessibility standards apply to passenger rail vehicles for the benefit of disabled people. Broadly, vehicles first brought into use after 31st December 1998 must meet

⁴ S.I. 1998/2456.

⁵ Rail Vehicle Accessibility (Interoperable Rail System) Regulations 2008, S.I. 2008/1746.

these requirements,⁶ and older vehicles must comply as they undergo refurbishment. All vehicles will be required to comply with certain requirements by 1st January 2020.

7.2 LUL's Northern Line fleet was first introduced in 1997 and therefore pre-dates RVAR. There are 106 trains, of 6 vehicles each. They already have a number of features which comply with RVAR and facilitate travel by disabled people. This includes an audio-visual Passenger Information System, priority seating and contrasting handrails.

7.3 As LUL expect to use this fleet after 2019, in 2014 it began to refurbish the fleet to make it more accessible. This included fitting wheelchair spaces and contrasting flooring. However, it has sought a limited number of exemptions from RVAR, as explained below. A copy of LUL's application can be found at **Annex A**.

7.4 An extension to the Northern Line was approved by the London Underground (Northern Line Extension) Order 2014 (S.I. 2014/3102). This Order authorises the extension of the Northern Line west from Kennington to Battersea and the creation of two new stations at Nine Elms and Battersea Power Station. As it is anticipated that these two new stations could be open by 2020, following discussion with LUL, we have included them in this application for exemptions. The Order, therefore, grants exemptions which will apply to vehicles which are used on the extension, and which stop at the new stations, once the extension becomes operational.

Wheelchair compatible doorways

7.5 For a six vehicle train, RVAR requires there be at least two wheelchair spaces. Carriages containing wheelchair spaces are also required to be "wheelchair accessible" meaning, amongst other things, that if the gap between the level of the carriage floor and the platform is not of a stated size or less, then a boarding device (ramp or lift) must be fitted by an operator if a person in a wheelchair wishes to use the doorway. Level access between platforms and trains, without the need for a boarding device, is preferred by wheelchair users over the use of manually deployed ramps as this allows for independent travel without the need to involve staff. LUL has been installing platform humps to provide level access at stations on the Northern Line where it is possible to access the street, or interchange between branches, lines or other services within the station, without the use of steps.

7.6 However, the level access requirement has not always been possible to achieve. Some parts of the Northern Line were built over 120 years ago when attitudes towards customer accessibility were very different. As a result, some platforms are severely curved, which creates large horizontal gaps. Instead, since the Olympic and Paralympic Games in 2012, LUL has been using Manual Boarding Ramps at stations where level access to the train is not possible – and where it is possible to access the street, or another rail service within the station, without the use of steps.

7.7 Following precedents on the Sub-Surface⁷ and Victoria Lines⁸, LUL sought exemptions from the requirement to provide level access or a boarding aid at stations

⁶ As previously noted, passenger rail vehicles on national, "heavy rail" lines have been subject instead to pan-European access requirements since 2008.

⁷ The Sub-Surface Lines are the Metropolitan, Circle, District and Hammersmith & City Lines.

without step-free access to the street or another line. These exemptions would fall if step-free access is provided. As LUL has an ongoing programme to increase the number of stations with step-free access, where the delivery date for this is known, then the exemptions from this requirement are time limited, and are listed in Table 1 of Schedule 1 of the Order. The stations listed in that Schedule do not include all those for which LUL sought exemption as work at some sites was completed while the Department was considering the application, and so no exemption was necessary.

7.8 In addition, a complication has been added by the fact that trains on the Northern Line sometimes change their orientation by travelling round the Kennington Loop. Platform humps on the Northern Line align with the position of carriage two of a train travelling southbound and carriage five of a train travelling northbound. When a train travels round the Kennington Loop this results in the first two wheelchair spaces being located in carriage five of a train travelling southbound, and carriage two of a train travelling northbound instead. Those two wheelchair spaces will, therefore, be out of alignment with the platform hump and non-compliant with the requirement for them to be “wheelchair accessible”. In response, LUL have fitted two more wheelchair spaces in the vehicle which will be aligned to the platform hump in that scenario, meaning that the ability of wheelchair users to travel is unaffected. However, exemptions are needed for the original two wheelchair spaces, which no longer align with the platform humps. As there is no impact on the ability of wheelchair users to use that service, we see this exemption as a technicality, which is more fully explained in LUL’s application.

Internal public information announcements

7.9 RVAR requires that, whilst a train is stationary at a stop, the passenger information systems inside the carriage shall be used to announce (audibly and visually) the destination of the vehicle and the next stop. This requirement is designed to ensure passengers know the destination of the train they are boarding, its route and whether it is a fast or stopping service.

7.10 However, as Northern Line trains are used to provide a frequent service with short station stops, LUL in their application suggested that this limits the amount of alternative information that can be given to customers whilst trains are stationary at platforms (the “dwell time”) without affecting the frequency of service. Also, every train on the Northern Line is a stopping service so at most points during the journey, giving the next stop only gives the same information as giving the final destination – that is, the direction of travel. LUL has therefore requested an exemption to allow *either* the destination of the vehicle, *or* the next stop (whichever is not announced at the station) to be given during transit between some stations instead.

7.11 The exemption will only apply at certain non-critical stations and in certain directions of travel, where there are no branches ahead, and where the station is not a junction. For key stations with junctions, no exemption is being sought from the

⁸ The Rail Vehicle Accessibility (Non-Interoperable Rail System) (London Underground Circle, District and Hammersmith & City Lines S7 Vehicles) Exemption Order 2010 S.I. 2012/105; the Rail Vehicle Accessibility (Non-Interoperable Rail System) (London Underground Metropolitan Line S8 Vehicles) Exemption Order 2013 S.I. 2013/1931; and the Rail Vehicle Accessibility (Non-Interoperable Rail System) (London Underground Victoria Line 09TS Vehicles) Exemption Order 2013 S.I. 2013/3318.

announcement requirements, so compliant "next station" and "final destination" details will both be given while the train is stationary at those stations, so helping passengers understand to which branch the train is about to depart. Additionally, both pieces of information will be given at all terminus stations, as the dwell times here are longer, so allowing LUL to provide these, and other useful pieces of information, to customers. The stations at which this exemption applies are listed in Schedule 2 of the Order. This is consistent with exemptions previously granted to the Circle, District and Hammersmith & City Lines⁹, which also has branches but no fast, non-stopping trains.

7.12 The exemption also contains the condition that LUL uses the time made available at each station to announce that station's name (which RVAR already requires to be announced on approach to that stop).

Step-edge contrasting strip

7.13 As part of its refurbishment, LUL has been fitting contrasting strips to highlight the edge of the floor at the doorways. However, it has not been possible to fit contrasting strips of the compliant width at the single doorways at the ends of the vehicles, as these taper inwards to allow the trains to safely go round bends.

7.14 LUL has fitted contrasting strips that are as wide as possible at the end doors, while it is fitting strips of compliant width at the two double doors on each side.

8. Consultation Outcome

8.1 Section 183(4) of the EA 2010 requires the Secretary of State, as part of his consideration of an application for exemption, to consult DPTAC together with any other appropriate persons. LUL's application was posted on the Department's web site.

8.2 Comments were received from DPTAC, the Office of Rail Regulation (ORR), and London TravelWatch (LTW) – all of which were supportive. However, both the ORR and LTW made comments relating to the roll-out of platform humps at wheelchair accessible doorways, and we shall draw these to LUL's attention. DPTAC also sought to have the station name announced whilst the train was at each station (rather than just in advance, as required by RVAR). This has been included in the Order. Copies of their replies can be found in **Annex B**. DPTAC was content for the Order to be dealt with under the negative resolution process.

8.3 Having considered the merits of LUL's application, and following consultation, the Secretary of State has decided to grant the exemptions requested, subject to the conditions and variations described above.

9. Guidance

⁹ The Rail Vehicle Accessibility (Non-Interoperable Rail System) (London Underground Circle, District and Hammersmith & City Lines S7 Vehicles) Exemption Order 2010 S.I. 2012/105.

Comprehensive guidance on the application of RVAR 1998 has been published.¹⁰ This remains relevant to RVAR.

10. Impact

10.1 An Impact Assessment has not been prepared for this instrument as it has no impact on business, charities or voluntary bodies.

10.2 The impact on the public sector is beneficial – through the avoidance of expenditure on level access or MBRs at stations without step-free access and from allowing alternative information to be provided during the limited dwell times at certain stations.

11. Regulating small business

The Order does not apply to any small businesses.

12. Monitoring & Review

12.1 The Government's policy objective is to ensure that the number of exemptions is minimised and that new and refurbished rail vehicles are as compliant as possible with the requirements of RVAR.

12.2 Since the Order contains exemptions which are not time limited, the Secretary of State will keep these provisions under review and will consider whether to revoke these in future, in consultation with stakeholders, if it were felt that these were no longer appropriate. The ORR is the enforcement body for RVAR and is responsible for ensuring that all of LUL's fleets comply with accessibility requirements to the extent permitted by this Order.

13. Contact

John Bengough at the Department for Transport (Tel: 020 7944 5035 or e-mail: john.bengough@dft.gsi.gov.uk) can answer any queries regarding the Order.

¹⁰ See www.dft.gov.uk/transportforyou/access/rail/vehicles/pubs/rva/rvareg1998.

Introduction

London Underground (LU) is committed to improving the accessibility of our services for all our customers.

Our aim is to provide a service that can be accessed by anyone safely, easily and independently, regardless of their age, impairment or encumbrance. We aim to provide the same or equivalent levels of service to all our customers, whilst recognising that customers' individual requirements vary.

To enable these aims, LU is currently undertaking an extensive investment programme to modernise and improve our stations and trains which includes the Northern line.

Background and Infrastructure

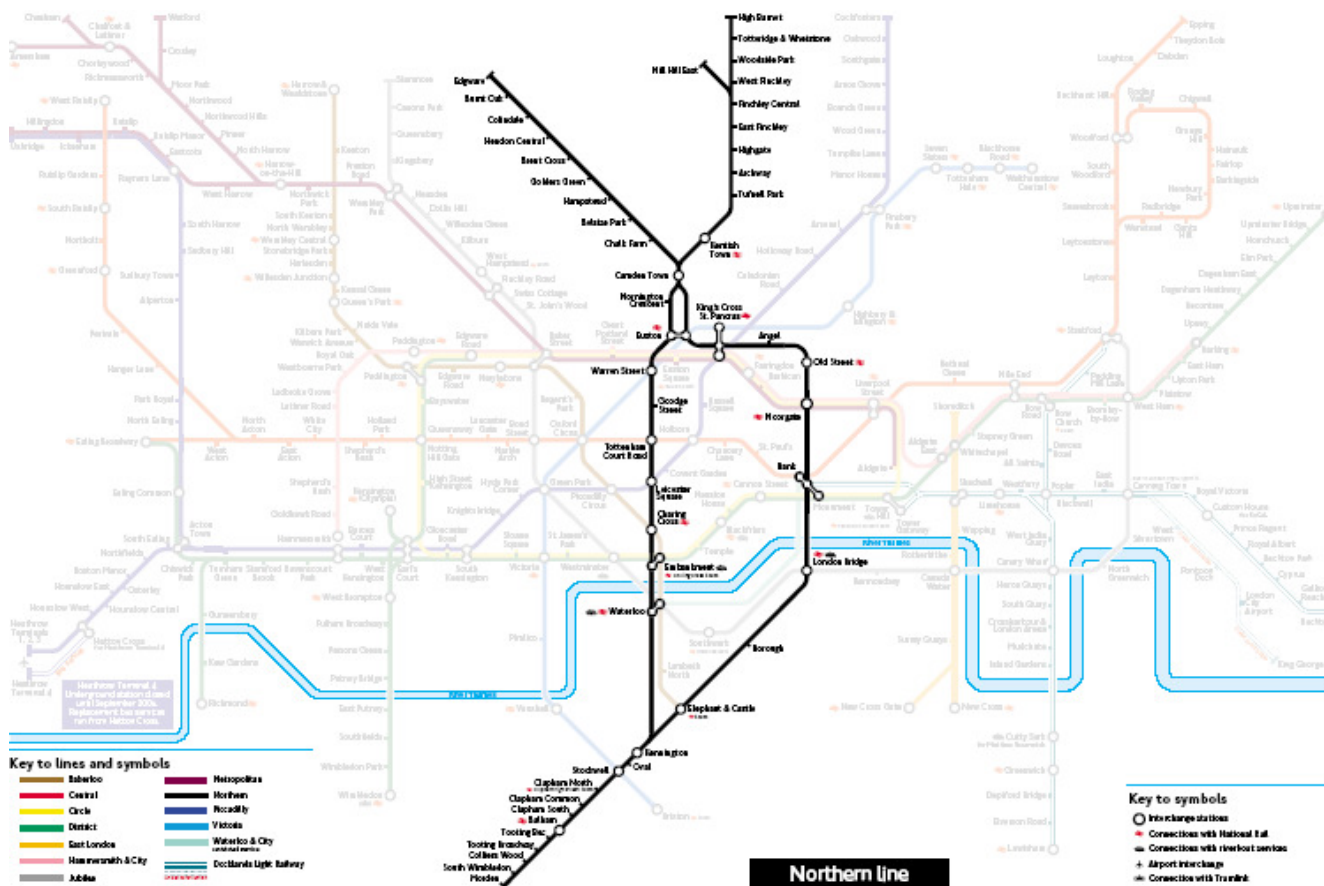


Fig1.0 Diagram depicting the current layout of the Northern line

The Northern line has its roots in two separate railways. The 5.25 km (3.26 mile) City and South London Railway - the world's first electric deep-level tube line - which opened in 1890 and ran from King William Street in the City to Stockwell; and the Charing Cross, Euston and Hampstead Railway, which opened in 1907. Between 1922 and 1926, the City and South London Railway was rebuilt and linked with the Hampstead Railway at Camden Town, with extensions to Hendon Central (1923), Edgware (1924) and Morden (1926). The line, renamed the Northern line in 1937, was further extended between Archway and East Finchley in 1939, over existing suburban railway tracks to High Barnet in 1940, and to Mill Hill East in 1941.

The Northern line covers 58 km (36 miles) and serves 50 stations between Morden and Edgware, Mill Hill East or High Barnet, with two central London branches via Bank or Charing Cross. It carries approximately 252 million passengers per year, making it one of the most intensively used lines on the LU network.

Northern Line Fleet

The trains currently in service on the Northern line (1995 Tube Stock) were first brought into use from 1997 to 2000. There are 106 trains, each consist of six cars comprising two driver motor cars (DM) cabs (front and rear), two trailer cars (T) and two uncoupling non-driving motor cars (UNDM).

DM – T – UNDM – UNDM – T – DM

The cars have six automated light emitting diode (LED) scrolling visual display units in each car as well as automated audio station announcements and a driver operated Public Address system. At their centre, each car has a multi-purpose area, comprising tilt-up seats.

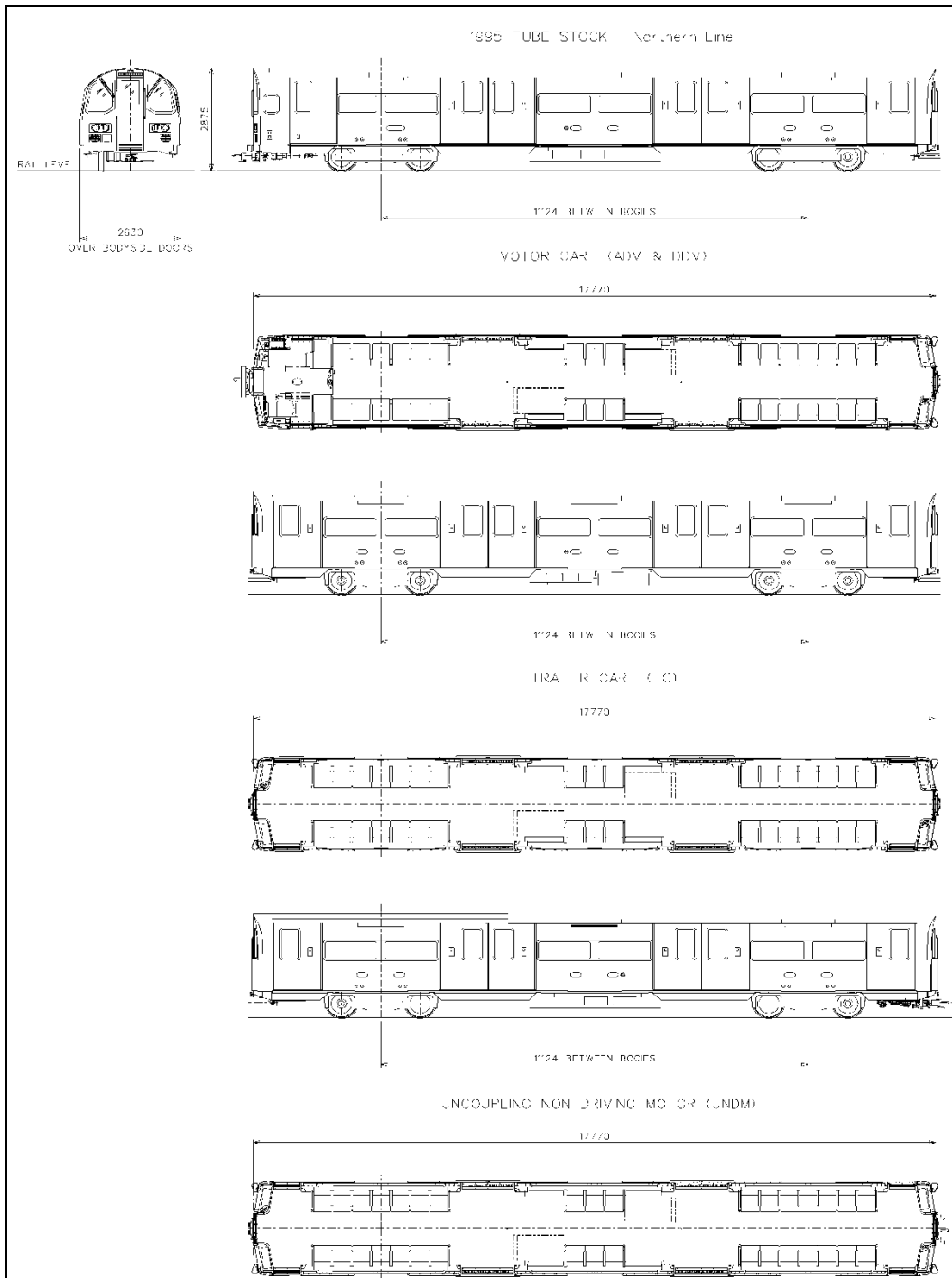


Figure 2.0 Diagram depicting Northern line carriages

Northern Line Upgrade and Train Refurbishment

LU is delivering an upgrade to the Northern line which replaces the existing traditional signalling and train control arrangements with a new Transmission Based Train Control (TBTC) System, including a new Service Control Centre at Highgate. The upgrade allows trains to run closer together and at higher speed. This will enable

a more frequent train service with a 20% capacity increase in London's central area and a reduction in inter-station runtimes. The Upgrade is planned for completion by December 2014.

These works are being done alongside accessibility improvement works at various stations and platforms.

Customers will also benefit from LU investment in refurbishment works on Northern line rolling stock. The refurbishment works will take into account the requirements of RVAR 2010 in their design and implementation, including:

- Two wheelchair bays in carriages two and five
- Non slip flooring of contrasting colour
- New visual and audible passenger information / announcements
- Wheelchair accessible push-button passenger emergency alarms

Future Plans

Proposals have been put forward to extend the Northern line to Battersea and create two new stations at Nine Elms and Battersea Power Station. The extension will fork west from Kennington and is part of wider plans to regenerate the Vauxhall Nine Elms Battersea (VNEB) Opportunity Area.

A Transport Works Act Order (TWAO) submission for the Northern line Extension has been made ahead of the Public Inquiry. Subject to funding being in place and permission to build and operate the extension being given, the new stations at Nine Elms and Battersea could be open by 2020.

Exemptions Requested for the 95TS Northern line trains

Within the constraints of the existing train design, LU has sought to meet as many of the RVAR 2010 requirements as possible. However, complete compliance cannot be achieved. With this background in mind, LU is seeking exemptions from the following provisions of Schedule 1 Part 1 of the Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations 2010 under Section 183 of the Equality Act 2010 ("EA"):

- **Schedule 1, Part 1: General Requirements, Paragraph 1(2)**
Boarding devices at wheelchair accessible doorways
- **Schedule 1, Part 1: General Requirements, Paragraph 8 (6) (a)**
Width of safety strip in single doorway
- **Schedule 1, Part 1: General Requirements, Paragraph 11(5)**
Announcements to be made whilst at a station

Similar exemptions have already been granted for the other lines on the London Underground network including the Victoria, Circle, District and Circle and Metropolitan lines.

1. Full name of applicant and address

London Underground Limited
55 Broadway
London
SW1H 0BD

2. Description of Rail Vehicles

Northern line 1995 Tube Stock (95TS)

Trailer		
52501	to	52539
52579	to	52619
52661	to	52686
52540	to	52578
52620	to	52660
52701 (D)	to	52726 (D)

This exemption only applies to the 212 trailer cars which will be the second to last car at each end of the train which contain the regulated wheelchair spaces. The exemption relates specifically to the wheelchair compatible doorways in these carriages.

3. Circumstances in which exemptions are to apply

At all times in passenger service, when a refurbished 95TS train stops at a platform where:

- a) there is no step-free route from the platform out of the station: or
- b) there is no step-free route between that platform and platforms for other London Underground (LU) lines or national rail services: or
- c) it is not physically possible to:
 - bring the dimensions of the step and/or gap within the maximum permitted tolerances and
 - b) deploy a manual boarding ramp in a safe and appropriate way.

4. Relevant requirements from which exemption is sought

Schedule 1, Part 1 (General Requirements)

- Paragraph 1(2)

1(1) Subject to sub-paragraph (2), when a wheelchair-compatible doorway in a rail vehicle is open at a platform at a station, or at a stop, a boarding device must be fitted by the operator between that doorway and the platform, or the stop, if a disabled person in a wheelchair wishes to use that doorway.

1(2) Sub-paragraph (1) does not apply where the gap between the edge of the door sill of the wheelchair-compatible doorway and the platform, or stop, is not more than 75 millimetres measured horizontally and not more than 50 millimetres measured vertically.

5. Technical, economic and operational reasons why exemption is sought

LU is requesting a series of temporary exemptions to enable us to provide useful level-access between the train and platform within the constraints of the infrastructure on the Northern line. The Northern line fleet is being refurbished and will comply with the requirements of RVAR, except where exemptions are being sought. The final train will be completed in December 2014.

Our aim is to provide a 'turn up and go' service which allows customers the greatest level of independent access without the need for staff intervention and assistance. However, this is made more difficult, as many of our stations and tunnels on the Northern line were built in the early twentieth century, and were never designed to provide level-access. These stations are often difficult to alter due to their physical layout and constraints, especially as many are below ground.

We understand the importance of a seamless accessible route from the street through the station and onto the train. We recognise that, in addition to access barriers between the street and platforms, the step and gap between the platform and train can cause a significant problem for many customers. Therefore, we have

invested a great deal of time and money to investigate and develop appropriate permanent solutions.

LU prefers the use of a permanent solution to that of a temporary solution, for example a manual boarding ramp (MBR). LU is proposing to use physical improvement works to provide permanent, reliable and independent access to customers. However, MBRs will be used where there is a tangible benefit to disabled customers. A more detailed explanation of LU's approach to the deployment of MBRs is given in Section 7.

On the Northern line we are intending to use 'platform humps' to raise relevant sections of the platform to the same height as the train to give permanent level access to the train carriages. The exception to this approach is Woodside Park, where customers currently step down into the train when boarding. At this station, LU is planning to lift the track to achieve level access.

Platform humps will be installed at the location of car two on southbound platforms and car five on northbound platforms, where the wheelchair spaces are located.

The use of permanent physical infrastructure improvements rather than temporary solutions requiring staff intervention has been supported by Department for Transport (DfT), Disabled Persons Transport Advisory Committee (DPTAC) and Parliament during the introduction of previous fleets. However, this preferred method of compliance is very expensive, on average amounting to £240,000 per hump when installed during engineering hours.

As a public body, LU has a responsibility to spend our funding wisely and fairly. This is particularly important within the current economic climate. These funding constraints are affecting our ability to deliver both improvements and business as usual activities in all areas of our service, and will continue to do so for some time.

LU is committed to providing independent access to our service whenever possible and practicable. However due to infrastructure restrictions and the nature of the Northern line service, even if expensive infrastructure alterations were made

to every Northern line platform, disabled customers would still not have effective or appropriate access at a significant number of stations and platforms.

At some locations it is not physically possible to bring the step and gap within the maximum dimensions permitted because of the curvature of the platform.

Meanwhile, at other locations, works would enable customers to alight from the train but they would not be able to leave the platform as there is no step free route through the station.

Therefore LU has developed a phased programme of timed and untimed exemptions which would enable us to focus on the platforms which will give maximum benefit to disabled customers within a realistic timescale.

We believe that this is the most effective use of our resources, taking account of the reality that regrettably many Underground stations are not currently accessible to all customers, especially wheelchair users and others with mobility impairments. LU will invest a significant amount of capital to bring Northern line platforms (those which will give most benefit to customers and are technically possible) within the required dimensions of RVAR. A detailed map is set out in Appendix A.

Categorisation of platforms

In agreement with DfT and DPTAC, LU has developed a categorisation system which enables us to prioritise platforms which will give maximum benefit to customers by linking platform works to the existing accessibility of the whole station. It prioritises platforms which provide:

- existing step-free access between street and platform
- planned step-free access between street and platform
- Has useful¹¹ interchange, terminating or reversing points.

11 In the above context, 'useful' should be defined as: platforms with step-free interchange between different lines or branches, or platforms where step-free journeys on the same line could potentially be broken by trains terminating at an intermediate station, where this termination is a) scheduled, or b) unscheduled but happens on a frequency of more than weekly

This approach, called the Pimlico Principle, was agreed with DfT and DPTAC during the development of the Victoria line Upgrade (VLU) exemption in 2008. The Pimlico Principle was subsequently used for the 'S8' Metropolitan line exemption application in 2009 and 'S7' application in 2011. It was supported as a pragmatic approach by all involved during the debates in Parliament for both applications.

RVAR compliance will give immediate benefit to customers. LU will endeavour to complete the bulk of the RVAR modifications on these platforms before December 2014, when refurbishment of the 95TS trains is planned to be complete. However, due to delivery constraints it is necessary to apply for a timed exemption for those platforms where enhancement works cannot be completed before December 2014. These delivery constraints are caused by the implementation of the Transmission Based Train Control (TBTC) signalling system on the Northern line. The TBTC system forms part of the Northern line upgrade works, which will reduce customer journey times and increase peak hour passenger capacity across the line. Until each migration area of the TBTC has 'gone live', the stopping point of the trains may be subject to change, which would impact on the location of the platform humps. This has therefore directly influenced the scheduling of the current hump installation works.

To enable us to identify the platforms where useful level-access should be provided we have used the categorisation system set out below.

Category 1: Existing step-free stations and platforms

Currently ten stations on the Northern line are step-free from street to platform, with an additional two being step-free in one direction only. A list of the platforms in Category 1 is set out in Appendix B.

At these stations, we have or intend to bring the step and gap between the train and platform within the required dimensions of RVAR for both directions. Apart from Elephant and Castle, Borough and Woodside Park, (which are subject to the constraints discussed above or form part of a future programme of works - see Appendix B), the rest of the platforms in this category are scheduled for

completion before the final RVAR compliant train is planned to be put into service in December 2014.

Furthermore, the rest of the stations set out in Appendix B will have a permanent solution apart from Golders Green and West Finchley¹². At these two stations, manual boarding ramps will be deployed due to station geometry preventing a permanent solution.

We will not request exemptions for platforms in Appendix B unless the works to the platform are scheduled for completion after the final refurbished Northern line train is brought into service.

Category 2: Planned step-free stations and platforms

LU has a number of infrastructure works which will include provision of step free access from street to platform. The two programmes impacting on the Northern line are the Tottenham Court Road Redevelopment and Bank Station Capacity Upgrade.

The Tottenham Court Road Redevelopment programme aims to reduce congestion and queuing through increased station capacity. The project will provide a new ticket hall; with new Northern line escalators, improved access to street level and step-free access to platform level provided by new lifts. This project is scheduled for completion in 2016.

The Bank Station Capacity Upgrade will reduce congestion and queuing at Bank station. The project delivers additional platform stairs and concourse capacity for Northern line platforms, through the provision of a new southbound running tunnel, and step free access from street to platform. This programme is scheduled for completion in 2021.

These projects will make the Northern line platforms of these stations step free from the street over the next 7 years.

¹² Manual Boarding ramp currently in use at West Finchley

It is our intention to include within such infrastructure projects, the works to deliver level-access between the train and platform. This will enable us to provide a fully seamless step-free route from the train through the station and out to the street.

In addition we have given a commitment that any future increase in the number of step-free stations will include level-access between the platform and train as an integral part of the plans – subject to the restrictions outlined later in this section.

As the 95TS refurbishment will be completed before stations in this category will be made step free, we are requesting timed exemptions for the Northern line platforms at these stations. A list of all the platforms in Category 2 and the exemptions requested are given in Appendix C.

With the planned Northern line extension to Battersea, both stations at Nine Elms and Battersea Power Station will be step free from street to platform and platform to train for the 95TS. These stations are scheduled to be brought into service by January 2020.

Category 3: Stations or platforms that are useful for interchange, or regularly used as termination or reversing points

LU recognises that some platforms may also be of significant benefit to disabled customers even if there isn't a complete step-free entry/exit route from the platform to street.

At some stations customers may be able to interchange between branches, lines and other services within the station to continue their journey. Therefore we have included platforms which have a step-free interchange route to other platforms or services.

In addition there are a numbers of situations and locations when all customers may need to disembark from the train. These include:

- Terminus stations at the end of the line.
- Stations where the scheduled service terminates prior to the end of the line.
- Terminating platforms such as stations near depots where trains may be taken out of service and customers have to change to another platform to continue their journey.
- Platforms where unscheduled reversing or terminating regularly takes place. The frequency with which this happens varies, at some platforms this could be a daily occurrence, while at others it could happen weekly or less often.

A list of all the platforms in Category 3 and the exemptions requested are given in Appendix D.

Category 4: Stations and platforms with no existing or planned step-free routes or interchange or where trains do not terminate or reverse

We believe that platforms in this category would be of little, if any benefit to disabled customers as they do not offer any of the step-free entry/exit or interchange routes outlined in the earlier 3 categories.

Therefore, we are requesting temporary exemptions for platforms in this category until such time as there is a step-free access route from the platform out of the station or between platforms, except where there are additional infrastructures constraints. These stations are set out in Appendix E.

6. The effect which non-compliance would have on a disabled person's ability to use rail vehicles of the description to which the application relates

LU has sought to minimise the effect of these exemptions on disabled peoples' ability to travel.

LU's approach to RVAR compliance, including the refurbished 95TS, has evolved from work done in relation to the 09TS trains introduced onto the Victoria line.

This work included both significant and sustained engagement with the Department for Transport (DfT) and the Disabled Persons Transport Advisory Committee (DPTAC).

Whilst LU understands that the size of the step and gap between the train and platform will cause a problem for a number of disabled people, in particular some wheelchair users, we believe that this approach, which broadly follows the approach used for the Victoria line, 'S7' and 'S8' upgrade projects, is the most appropriate way forward at this time.

The majority of the exemptions we have applied for relate to platforms in Category 4, which do not currently have a step free route through the station or any useful interchange. We do not believe that these exemptions will adversely affect a disabled person's ability to use the refurbished 95TS vehicles in these locations. Any future plans to make these platforms step free will include works to bring the step and gap within the permitted dimensions, unless there are any additional infrastructure constraints.

In the case of Bank and Tottenham Court Road station, the RVAR modifications are being delivered by the Station Upgrade Projects. At platforms where work is planned, we do not believe that phasing these works, so that they take place at the same time as the works to make the whole station step-free or enable level-access to vehicles on other lines, will have a significant effect on disabled peoples' ability to travel, because of existing access barriers between the street and platforms. Furthermore, we believe that joining up these work programmes will prevent passengers from getting stranded on platforms at stations where there is no step-free route from the platform, thereby avoiding the confusion, inconvenience and distress that a passenger could experience in these circumstances. LU is requesting a timed exemption for these stations as the modifications required will form part of the overall station upgrade works.

Appropriate communication and management procedures will be put in place to ensure that disabled customers are not stranded on trains or platforms at these stations. In the event of service failure or an emergency, customers will be

“detrained” using the appropriate operational procedures and evacuation equipment.

7. Any measures which could be taken to enable disabled persons to use the rail vehicle if exemption sought is granted

LU is requesting a series of temporary exemptions to take account of the different issues relating to the varied nature of platforms and stations on the Northern line.

The temporary exemptions relate to stations which do not have a step-free route through the station. LU does not believe that it would be appropriate to provide any interim measures to give level-access to the platform. Such measures would increase the risk of customers being stranded on the platform after getting off a train only to find that there is no accessible route from the platform out of the station.

Following their initial introduction onto the network in time for the London 2012 Games, we are rolling MBRs out further, in phases, to ensure that we can monitor and analyse any new impact on the network as a result of increased numbers of MBRs in use. The first post-Olympic phase of this LU network approach was completed in 2013 with MBRs introduced at West Finchley on the Northern line.

MBRs will be deployed on Category 1, 2 and 3 platforms where permanent level access from train to platform cannot be achieved.

LU will ensure that where there are anomalies in standard end to end journeys, for example the Kennington loop, robust operational controls will be used to aid disabled customers.

Kennington – The Kennington loop

At Kennington, trains may be scheduled to travel around the Kennington loop. This means that car two southbound can become car two northbound, where no platform humps are located.

Disabled customers travelling southbound on the Charing Cross branch could be over carried around the loop to the northbound platform of the Charing Cross branch and are unable to exit the carriage or access the southbound platform at Kennington, as there is no level access to the platform. Appendix F provides further information on this anomaly. LU takes the necessary precautions to announce that trains are terminating at Kennington and request that customers 'detrain'. However, in the unlikely event of disabled customers being over carried, audio and visual information will be given whilst in the Kennington loop advising them to make contact with the driver via the passenger alarm. Disabled customers will be met at the northbound platform at Kennington station by a member of staff to help them alight. Disabled customers would be advised to travel to London Bridge¹³ where there is level interchange to resume their southbound journey.

8. Any proposals for later modification of rail vehicles to secure compliance with RVAR within a stated period

At stations where work is planned, the temporary exemptions will enable LU to phase the platform works in line with the whole station works. Our medium and long term solutions will provide an appropriate, accessible and sustainable solution to give greater independent access for disabled customers at these stations.

The number of locations affected by this exemption will reduce as works are carried out to give level-access between the platform and trains.

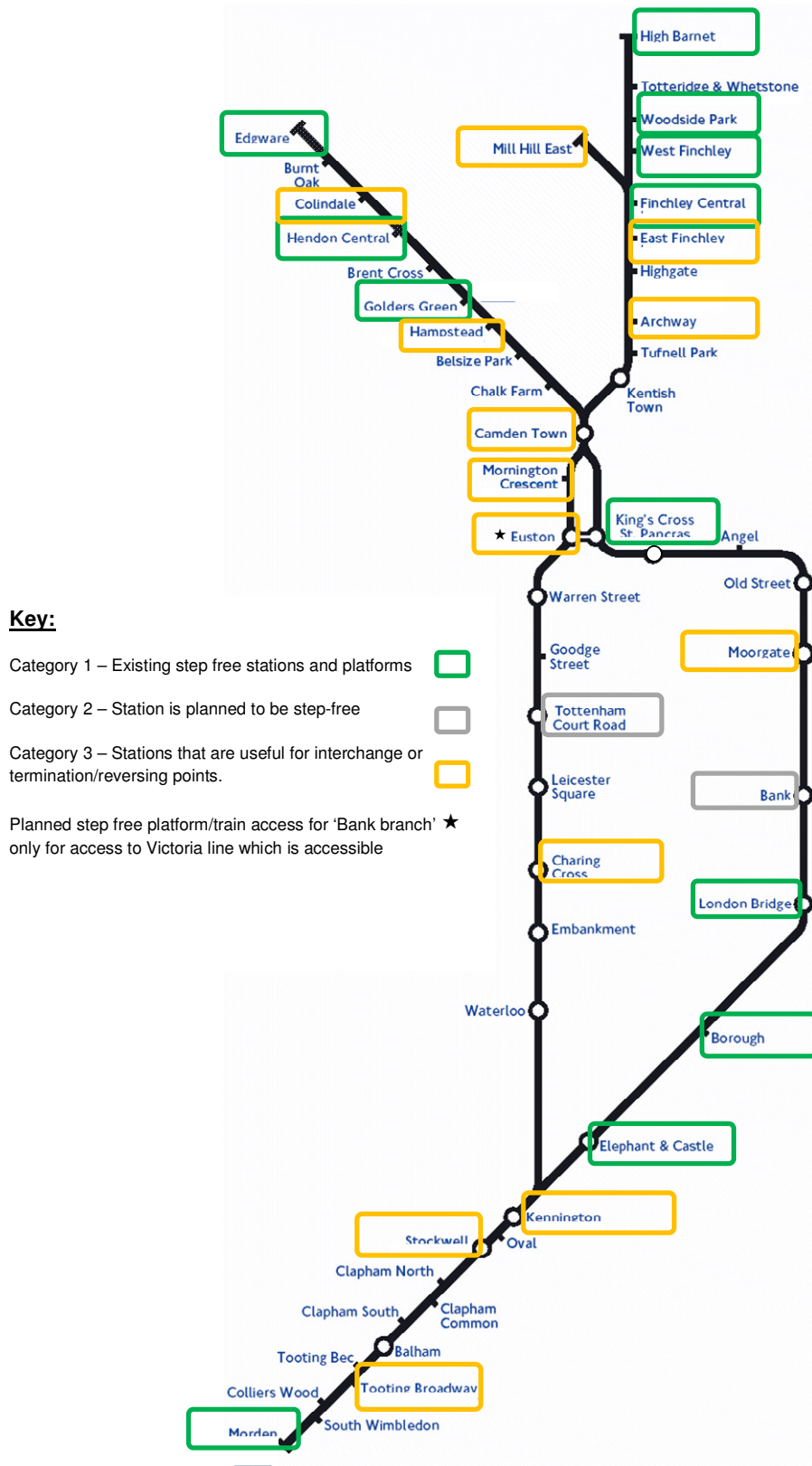
LU has not applied for a permanent exemption for platforms where compliance is not currently possible as we are aware that technology and circumstances change. Consideration of future compliance methods will be a key factor to any future plans.

¹³ London Bridge station was chosen rather than Waterloo and Embankment (which has less frequent southbound trains) and Elephant & Castle and Borough (which does not have level interchange).

9. Unless permanent exemption sought, the period during which exemption is to apply.

LU is requesting timed and untimed exemptions in line with the timescales as set out in Appendices B, C, D and E.

Appendix A - Map depicting Pimlico categorisation of Northern line stations



Appendix B Category 1 - Northern line platforms with existing step free access.

Station	Platform No.	Exemption Requested	Justification for Exemption
Borough	1	March 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
Borough	2	March 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
Edgware	1	None	Platform train interface is already RVAR compliant.
Edgware	2	None	Platform train interface is already RVAR compliant.
Edgware	3	None	Platform train interface is already RVAR compliant.
Elephant & Castle	1	February 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
Elephant & Castle	2	February 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
Finchley Central	1	None	Platform train interface is already RVAR compliant.
Finchley Central	2	None	Platform train interface is already RVAR compliant.
Finchley Central	3	None	Platform train interface is already RVAR compliant.
Golders Green ¹⁴	2	None	MBR installed by December 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014. LU currently

¹⁴ Golders Green platform 1 is not in scope as this platform is not in use by passengers.

			consulting on relocation of platform shelter situated at position of MBR installation.
Golders Green	3	None	MBR installed by December 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014. Awaiting outcome of consultation around shelter on platform 2 as installation work to be done as combined programme.
Golders Green	4	None	MBR installed by December 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014. Awaiting outcome of consultation around shelter on platform 2 as installation work to be done as combined programme.
Golders Green	5	None	MBR installed by December 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014. Awaiting outcome of consultation around shelter on platform 2 as installation work to be done as combined programme.
Hendon Central	1	None	Platform train interface is already RVAR compliant.
Hendon Central	2	None	Platform train interface is already RVAR compliant.
High Barnet	1	None	Platform train interface is already RVAR compliant.
High Barnet	2	None	Platform train interface is already RVAR compliant.
High Barnet	3	None	Platform train interface is already RVAR compliant.
King's Cross St. Pancras	7	None	Platform train interface is already RVAR compliant.
King's Cross St. Pancras	8	None	Platform train interface is already RVAR compliant.
London Bridge	1	None	Platform train interface is already RVAR compliant.
London Bridge	2	None	Platform train interface is already RVAR compliant.
Morden ¹⁵	2	None	Platform train interface is already RVAR compliant.

¹⁵ Morden platform 1 is not in scope as this platform is not in use by passengers.

Morden	3	None	Platform train interface is already RVAR compliant.
Morden	4	None	Platform train interface is already RVAR compliant.
Morden	5	None	Platform train interface is already RVAR compliant.
West Finchley	1	None	Platform train interface is already RVAR compliant.
West Finchley	2	None	Platform train interface is already RVAR compliant.
Woodside Park	1	December 2016	Will be compliant by December 2016. This station will be incorporate into the Track Stabilisation Programme.
Woodside Park	2	December 2016	Will be compliant by December 2016. This station will be incorporate into the Track Stabilisation Programme.

Appendix C. Category 2 - Northern line Platforms with Planned Step Free Access.

Station	Platform No.	Planned SFA Date	Exemption Requested	Justification for Exemption
Bank	3	2021	December 2021	Bank station capacity upgrade project completes in 2021. Step free access will be completed as part of this programme.
Bank	4	2021	December 2021	Bank station capacity upgrade project completes in 2021. Step free access will be completed as part of this programme.
Tottenham Court Road	3	2016	December 2016	Tottenham Court Road Redevelopment Programme completes in 2016. Step free access will be completed as part of this programme.
Tottenham Court Road	4	2016	December 2016	Tottenham Court Road Redevelopment Programme completes in 2016. Step free access will be completed as part of this programme.

Appendix D: Category 3 – Platforms with existing or planned step-free interchange between platforms or stations and platforms regularly used as termination or reversing points

Station	Platform No.	Customer Benefit	Exemption Requested	Justification for Exemption Request
Archway	1	Reversing	None	Will be compliant by September 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
Archway	2	Reversing	None	Will be compliant by September 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
Camden Town	1	Interchange	February 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
Camden Town	2	Interchange	February 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
Camden Town	3	Interchange	Untimed	LU will install a platform hump by the end of February 2015, however, due to platform geometry the step will be 5mm outside RVAR tolerance dimensions.
Camden Town	4	Interchange	February 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
Charing Cross	5	Reversing	None	Will be compliant in October 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
Charing Cross	6	Reversing	None	Will be compliant in October 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
Colindale	1	Reversing	March 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.

Colindale	2	Reversing	March 2015	section 5. Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
East Finchley	1	Reversing, Interchange	None	Will be compliant by July 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
East Finchley	2	Reversing, Interchange	None	Will be compliant by July 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
East Finchley	3	Reversing, Interchange	None	Will be compliant by July 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
East Finchley	4	Reversing, Interchange	None	Will be compliant by July 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
Euston City	3	Interchange, Reversing	None	Platform train interface is already RVAR compliant.
Euston City	6	Interchange, Reversing	None	Platform train interface is already RVAR compliant.
Hampstead	1	Reversing	April 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
Hampstead	2	Reversing	December 2015	Platform geometry currently excludes a temporary/permanent solution. However, LU will investigate a number of possibilities including a hybrid solution (half ramp/half hump) and a new ramp design. These will be subject to stakeholder consultation, LU programme approval and installation works.
Kennington	1	Reversing	None	Platform train interface is already RVAR compliant.

Kennington	2	Reversing	None	Platform train interface is already RVAR compliant.
Kennington	3	Reversing	None	Platform train interface is already RVAR compliant.
Kennington	4	Reversing	None	Platform train interface is already RVAR compliant.
Mill Hill East	1	Reversing	None	MBR installed in May 2014 March 2015, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
Moorgate	7	Interchange, Reversing	December 2015	Platform geometry currently excludes a temporary/permanent solution. However, LU will investigate a number of possibilities including a hybrid solution (half ramp/half hump) and a new ramp design. These will be subject to stakeholder consultation, LU programme approval and installation works.
Moorgate	8	Interchange, Reversing	December 2015	Platform geometry currently excludes a temporary/permanent solution. However, LU will investigate a number of possibilities including a hybrid solution (half ramp/half hump) and a new ramp design. These will be subject to stakeholder consultation, LU programme approval and installation works.
Mornington Crescent	1	Reversing	None	Will be compliant by November 2014, prior to full commissioning of refurbished Northern line trains on 31 December 2014.
Mornington Crescent	2	Reversing	December 2015	Platform geometry currently excludes a temporary/permanent solution. However, LU will investigate a number of possibilities including a hybrid solution (half ramp/half hump) and a new ramp design. These will be subject to stakeholder consultation, LU programme approval and installation works.
Stockwell	2	Reversing	None	Platform train interface is already RVAR compliant.
Stockwell	3	Reversing	None	Platform train interface is already RVAR compliant.
Tooting Broadway	1	Reversing	February 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.

Tooting Broadway	2	Reversing	February 2015	Platform works are scheduled for completion after the commissioning of refurbished Northern line trains due to the delivery constraints discussed in section 5.
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Appendix E: Category 4 - Stations and platforms with no existing or planned step-free routes or interchange or where trains do not terminate or reverse

Station	Platform Nos.	Exemption Requested	Justification for Exemption
Angel	1	Untimed	Untimed temporary exemption until station becomes step-free
Angel	2	Untimed	Untimed temporary exemption until station becomes step-free
Balham	1	Untimed	Untimed temporary exemption until station becomes step-free
Balham	2	Untimed	Untimed temporary exemption until station becomes step-free
Beisize Park	1	Untimed	Untimed temporary exemption until station becomes step-free
Beisize Park	2	Untimed	Untimed temporary exemption until station becomes step-free
Brent Cross	1	Untimed	Untimed temporary exemption until station becomes step-free
Brent Cross	2	Untimed	Untimed temporary exemption until station becomes step-free
Burnt Oak	1	Untimed	Untimed temporary exemption until station becomes step-free
Burnt Oak	2	Untimed	Untimed temporary exemption until station becomes step-free
Chalk Farm	1	Untimed	Untimed temporary exemption until station becomes step-free
Chalk Farm	2	Untimed	Untimed temporary exemption until station becomes step-free
Clapham Common	1	Untimed	Untimed temporary exemption until station becomes step-free
Clapham Common	2	Untimed	Untimed temporary exemption until station becomes step-free
Clapham North	1	Untimed	Untimed temporary exemption until station becomes step-free

Clapham North	2	Untimed	Untimed temporary exemption until station becomes step-free
Clapham South	1	Untimed	Untimed temporary exemption until station becomes step-free
Clapham South	2	Untimed	Untimed temporary exemption until station becomes step-free
Colliers Wood	1	Untimed	Untimed temporary exemption until station becomes step-free
Colliers Wood	2		Untimed temporary exemption until station becomes step-free
Embankment	3	Untimed	Untimed temporary exemption until station becomes step-free
Embankment	4	Untimed	Untimed temporary exemption until station becomes step-free
Euston Charing Cross	1	Untimed	Untimed temporary exemption until station becomes step-free
Euston Charing Cross	2	Untimed	Untimed temporary exemption until station becomes step-free
Goodge Street	1	Untimed	Untimed temporary exemption until station becomes step-free
Goodge Street	2	Untimed	Untimed temporary exemption until station becomes step-free
Highgate	1	Untimed	Untimed temporary exemption until station becomes step-free
Highgate	2	Untimed	Untimed temporary exemption until station becomes step-free
Kentish Town	1	Untimed	Untimed temporary exemption until station becomes step-free
Kentish Town	2	Untimed	Untimed temporary exemption until station becomes step-free
Leicester Square	3	Untimed	Untimed temporary exemption until station becomes step-free
Leicester Square	4	Untimed	Untimed temporary exemption until station becomes step-free
Old Street	1	Untimed	Untimed temporary exemption until station becomes step-free
Old Street	2	Untimed	Untimed temporary exemption until station becomes step-free
Oval	1	Untimed	Untimed temporary exemption until station becomes step-free
Oval	2	Untimed	Untimed temporary exemption until station becomes step-free
South Wimbledon	1	Untimed	Untimed temporary exemption until station becomes step-free
South Wimbledon	2	Untimed	Untimed temporary exemption until station becomes step-free
Tooting Bec	1	Untimed	Untimed temporary exemption until station becomes step-free

Tooting Bec	2	Untimed	Untimed temporary exemption until station becomes step-free
Totteridge & Whetstone	1	Untimed	Untimed temporary exemption until station becomes step-free
Totteridge & Whetstone	2	Untimed	Untimed temporary exemption until station becomes step-free
Tufnell Park	1	Untimed	Untimed temporary exemption until station becomes step-free
Tufnell Park	2	Untimed	Untimed temporary exemption until station becomes step-free
Warren Street	1	Untimed	Untimed temporary exemption until station becomes step-free
Warren Street	2	Untimed	Untimed temporary exemption until station becomes step-free
Waterloo	1	Untimed	Untimed temporary exemption until station becomes step-free
Waterloo	2	Untimed	Untimed temporary exemption until station becomes step-free

Appendix F: Explanatory note on Kennington loop

Normal journeys through Kennington station run end to end as depicted in Figure 1. However, due to operational requirements, southbound trains via the Charing Cross branch may be scheduled to travel around the Kennington loop. This means that car two southbound can become car two northbound, where no platform humps are located Figure 2. Therefore LU is providing two wheelchair bays in each of cars two and five so that at all times there will be a compliant car aligned with platform humps at position car two southbound and car five northbound.

Therefore, there exists a small probability that a disabled customer (travelling southbound) could be over carried around the loop to the northbound platform and unable to access the southbound platform, as there is no step free access.

Disabled customers, who are over carried, would need to change at Kennington station and travel to London Bridge where there is level access, to resume their southbound journey. A combination of RVAR modifications on Northern line trains and the implementation of additional operational procedures will assist disabled customers in the event of an over carry. A diagram of the Kennington loop is set out below.

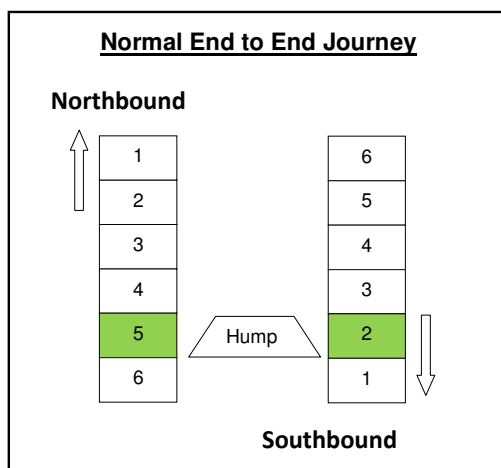


Figure 1 : End to End Journey

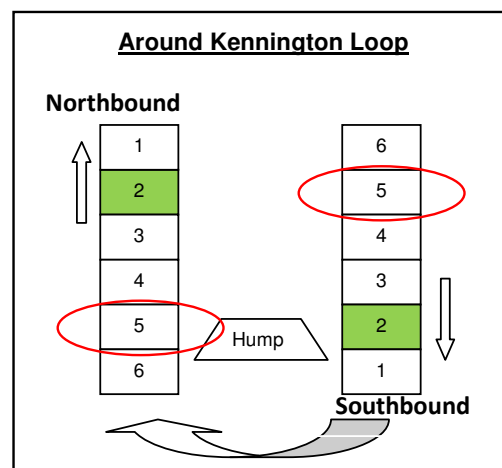


Figure 2 : Kennington Loop Journey

Operational Controls for the Kennington loop

Operational controls are currently in place to minimise the risk of a customer over carry on the Kennington loop. Currently, if trains are scheduled to terminate at Kennington station, passenger information announces the termination and

customers are requested to disembark. Customers are able to move across the platform and join a southbound train by means of a level interchange.

LU plans to install an audio and visual message to be played whilst the train is in the Kennington loop advising customers requiring assistance to contact the driver via the passenger alarm. Station staff will meet the disabled customer at Kennington station to assist with alighting. Disabled customers will then be advised to take the northbound train to London Bridge as Kennington station has no level interchange between north and southbound platforms. Once at London Bridge, customers can interchange to continue their southbound journey.

London Bridge station was chosen rather than Waterloo and Embankment (which has less frequent southbound trains) and Elephant & Castle and Borough (which does not have level interchange).

Signage

LU is providing two RVAR complaint cars but only a single hump on any platform. This means that disabled passengers requiring level access could be unsure of where to board the train, owing to only having a single point of level access but two cars with areas designated for wheelchair use (and being externally labelled as such).

To avoid this, LU proposes to install platform based signage so that disabled passengers are aware of the need to move towards the area of the platform which provides level access. Different stations will require different levels of signage, but the following principles will be applied:

- All platforms should have markings on the floor, adjacent to the non-accessible car, directing passengers to the area designated as level access. Example signage is shown below.
- All stations with interchange shall have wall mounted signage at potential access points to the platform directing passenger to the area designated as level access.

- All stations with step free access shall have wall mounted signage adjacent to lifts directing passengers to the area designated as level access.

Example Signage from other Underground lines



1. Full name of applicant and address

London Underground Limited
55 Broadway
London
SW1H 0BD

2. Description of Rail Vehicles

Northern line 1995 Tube Stock (95TS):

- Trailer cars 52501 – 52686
- De-icing cars 52701(D) – 52726(D)

The Northern Line fleet (95TS) came into service from 1997 and thus predates Rail Vehicle Accessibility Regulations (RVAR) 2010. We are undertaking work to make the fleet more accessible, in advance of the legal deadline of 1 January 2020. This includes fitting compliant wheelchair spaces for the first time.

This application only applies to the second and fifth carriage in each six carriage train – which are those with the wheelchair spaces (with the vehicle numbers above). However, the exemption sought will only apply to half the carriages at any one time – depending on the direction of travel. This will be car five when travelling in a southbound direction and car two when travelling in a northbound direction.

3. Circumstances in which exemptions are to apply

This exemption applies at all times while the train is in passenger service.

4. Relevant requirements from which exemption is sought

Schedule 1, Part 1 (General Requirements)

- Paragraph 1(1) and 1(2)

1(1) Subject to sub-paragraph (2), when a wheelchair-compatible doorway in a rail vehicle is open at a platform at a station, or at a stop, a boarding device must be fitted by the operator between that doorway and the platform, or the stop, if a disabled person in a wheelchair wishes to use that doorway.

1(2) Sub-paragraph (1) does not apply where the gap between the edge of the door sill of the wheelchair-compatible doorway and the platform, or stop, is not more than 75 millimetres measured horizontally and not more than 50 millimetres measured vertically.

5. Technical, economic and operational reasons why exemption is sought

Schedule 1, Part 1 (General Requirements) sub paragraph 18 of RVAR, sets out the number of wheelchair spaces required. These spaces relate to the length of the trains. Northern line trains consist of six cars and are therefore legally required to have two wheelchair spaces per train. London Underground (LU) has met this requirement. Two wheelchair spaces have been provided in that vehicle which is termed car two on southbound journeys and termed car five on northbound journeys. These will align with humps on the platform that provide level access, at stations with step-free access to the street or interchange to another line.

The Kennington loop

Normal journeys on the Underground run end to end as depicted in Figure 1.

Key:

■ Original wheelchair spaces

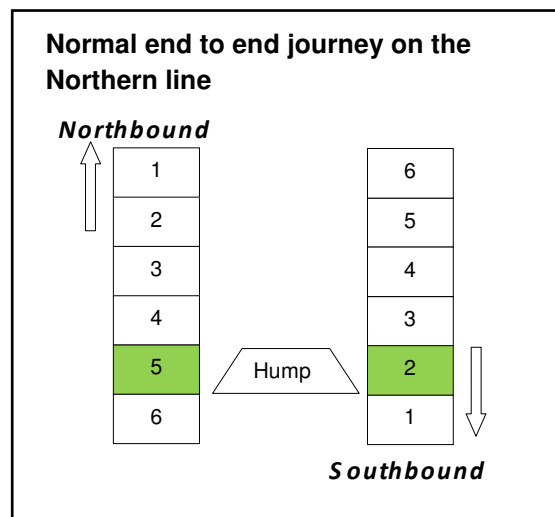


Figure 1 : End to End Journey

On the Northern line, platform humps are aligned with the position of car two southbound and car five northbound to enable accessibility for mobility impaired customers.

However, southbound trains on the Northern line via the Charing Cross branch may be scheduled to terminate at Kennington and travel round the loop there in order to start a new journey northwards as depicted in Figure 2.

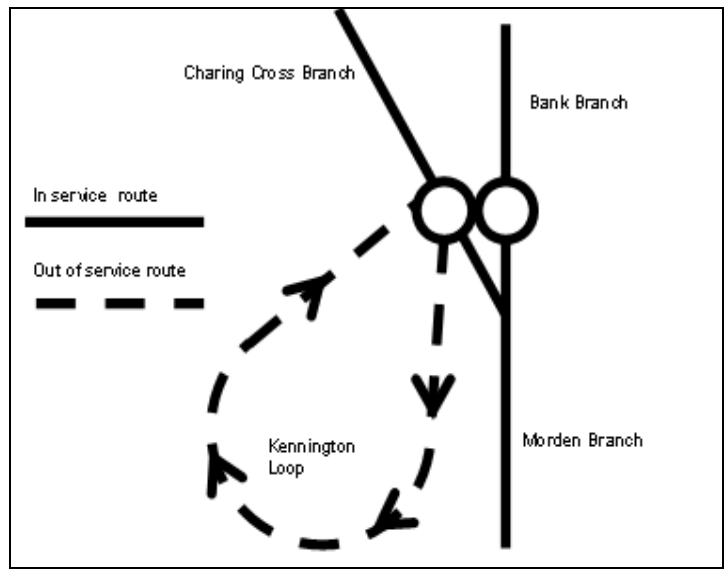


Figure 2: Northern line Kennington layout

This means that car two (southbound) becomes car two (northbound) as depicted in Figure 3. Thus, car two (northbound) having travelling around the loop, would not be aligned with a hump already installed at the location of car five (northbound) for normal end to end northbound journeys. This misalignment would then continue at all northbound stations with platform humps along the line.

Key:

■ Original wheelchair spaces

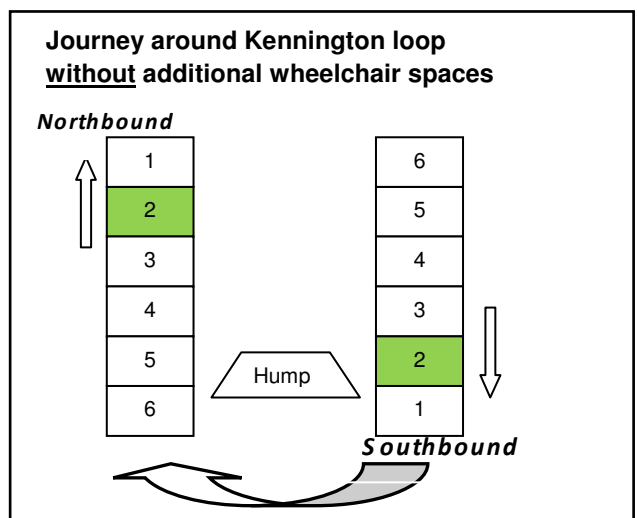


Figure 3: Kennington Loop journey without additional wheelchair spaces

Therefore, LU has installed two additional wheelchair spaces in what is termed car five in the southbound direction to ensure that all trains will have one compliant car aligned with a platform hump if they travel around the loop at Kennington (Figure 4).

Key:

- Original wheelchair spaces
- Additional wheelchair spaces

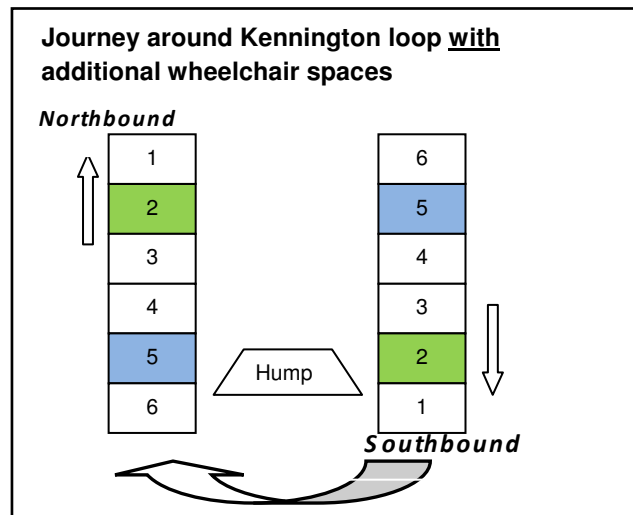


Figure 4: Kennington Loop journey with additional wheelchair spaces

We are seeking an exemption for two of these four wheelchair spaces, which at any station along the line will not be aligned with the platform hump, depending on the direction of travel.

6. The effect which non-compliance would have on a disabled person's ability to use rail vehicles of the description to which the application relates

The non compliance would not hinder a disabled person's ability to use the Northern line. LU is providing two accessible wheelchair spaces in each direction, as required by RVAR.

7. Any measures which could be taken to enable disabled persons to use the rail vehicle if exemption sought is granted

RVAR requires any carriage containing a wheelchair space to be marked as such on the outside. However, on the Northern line, this could cause confusion as one of the carriages will be marked with the symbol but will not be accessible as it will not align with platform hump.

To avoid confusion, platform based signage will advise disabled customers of the need to move towards the area of the platform which provides level access.

Different stations will require different levels of signage, but the following principles will be applied:

- All platforms will have markings on the floor, aligned to the non-accessible car, directing passengers to the area designated as level access. Example signage is set out in Appendix A.
- All stations with interchange to other lines will have wall mounted signage at potential access points to the platform directing passenger to the area designated as level access.

LU will also institute mitigating operational controls to assist disabled customers in the unlikely event that they may be 'overcarried' round the Kennington loop after the train has terminated at Kennington station. These are set out in Appendix B.

8. Any proposals for later modification of rail vehicles to secure compliance with RVAR within a stated period

The design of the existing trains has train operating equipment placed in four out of the six carriages. This leaves only carriages two and five with sufficient room to accommodate RVAR compliant wheelchair spaces. LU was therefore not able to place the wheelchair spaces in a carriage where the impact of the Kennington loop would be avoided (i.e. carriages three and four aligned to a single, larger hump).

We do not believe the installation of an additional hump per platform allowing access to the two additional wheelchair spaces, would be a cost effective usage of LU's limited funding. LU will provide two accessible wheelchair spaces as required by RVAR, enabling accessibility on all stations where existing platform geometry allows.

Currently there are 49¹⁶ platforms on the Northern line which have humps or are in scope of hump installation. The cost of humps installed during engineering hours is on average £240k per hump. To install a second platform hump at the 49 platforms would significantly increase both the duration of the installation programme and cost LU an additional unbudgeted £11.8m.

As a public body, LU has a responsibility to spend its funding wisely and fairly. This is particularly important within the current economic climate. These funding constraints are affecting our ability to deliver both improvements and business as usual activities in all areas of our service and will continue to do so for some time.

Therefore, to ensure we spend public funding efficiently, it is more cost effective to use those funds to implement accessibility features on other lines as this will deliver better value for money and customer benefit.

9. Unless permanent exemption sought, the period during which exemption is to apply.

LU is requesting an untimed exemption for the two wheelchair spaces in the vehicle designated as car five when the train is travelling south and as car two when the train is travelling north.

¹⁶ This calculation excludes platforms at Golders Green and Mill Hill East which will achieve compliance through manual boarding ramps and Woodside Park which will form part of the Track Programme. High Barnet, Edgware and Morden are excluded as these are end of line stations and therefore not affected by the direction of travel.

Appendix A - Example Signage from other Underground lines

600 mm dia floor vinyls



Appendix B – Mitigating procedure for disabled person over carried at the Kennington loop.

Passengers are not meant to be aboard a train as it goes round the Kennington loop. However, this does occur on very rare occasions.

LU will institute the following operational controls to mitigate cases where a customer in a wheelchair has been carried around the Kennington loop (as that carriage will not then align with the hump on the northbound platform, and so that passenger will not be able to alight – see Figure 3).

Customer information is given to announce that trains are terminating at Kennington and asking all customers to 'detrain'. An audio and visual message will be played whilst the train is in the Kennington loop.

This message will advise customers requiring assistance to contact the driver via the passenger alarm. Station staff will meet the disabled customer at Kennington station to assist with alighting. Disabled customers will then be advised to take the northbound train to London Bridge as Kennington station has no level interchange between north and southbound platforms. Once at London Bridge, customers can interchange to continue their southbound journey.

London Bridge station was chosen rather than Waterloo and Embankment (which have less frequent southbound trains) and Elephant & Castle and Borough (which do not have level interchange).

1. Full name of applicant and address

London Underground Limited
55 Broadway
London
SW1H 0BD

2. Description of Rail Vehicles

Existing 95TS Fleet								
Leading Driving Motor			Trailer			Middle Uncoupling Non Driving Motor		
51501	to	51539	52501	to	52539	53501	to	53539
51579	to	51619	52579	to	52619	53579	to	53619
51661	to	51686	52661	to	52686	53661	to	53686
51540	to	51578	52540	to	52578	53540	to	53578
51620	to	51660	52620	to	52660	53620	to	53660
51701	to	51726	52701 (D)	to	52726 (D)	53701	to	53726

Note: (D) de-icing units

3. Circumstances in which exemptions are to apply

At all times while the train is in passenger service.

4. Relevant requirements from which exemption is sought

Schedule 1, Part 1 (General Requirements) of the Rail Vehicles Accessibility Regulations (RVAR) 2010, paragraph 8 (6) (a):

- 8(6)** At a passenger doorway in the side of a rail vehicle the floor must have a band of single colour running parallel with the full width of the entrance –
- (a) not less than 50 millimetres and not more than 100 millimetres wide;
 - (b) the edge of which furthest from the entrance must not be more than 100mm from the edge of the floor at the entrance; and
 - (c) which contrasts with the adjoining floor surface.

5. Technical, economic and operational reasons why exemption is sought

London Underground (LU) operates the Northern line on a network of old tunnels and stations, many of which were constructed in the early twentieth century. Therefore, due to the existing infrastructure, many of the stations on the Northern line have a gap between the train and platform. LU has minimised the safety risk to customers through a combination of installing door sills at the two single doors and the double doors on all train and cab carriages, as well as an ongoing programme of works to modify platforms where possible. LU has installed RVAR compliant safety strips on the sills located at the double doors of train carriages.

The single door sills on the Northern line 95 train stock (TS) trains are tapered (see Appendix A) to reduce the risk of the train striking curves and corners in tunnels and along platforms. As the Northern line 95TS trains are refurbished trains, rather than newly commissioned trains, the refurbished trains will have a safety strip of contrasting colour retrofitted within the tapered door sill area.

RVAR 2010 requires that:

- the width of the safety strip at door entrances to be a minimum of 50mm and maximum of 100mm
- the edge of the safety strip which is furthest from the entrance must not be more than 100mm from the edge of the floor at the entrance
- the safety strip must be of contrasting colour.

As mentioned above, due to the taper of the door sill for operational reasons, LU is unable to install a safety strip measuring more than 50mm in width, as the continuous width of 50mm safety strip would not fit on the tapered door sill.

We have considered various options to achieve RVAR compliance:

a) *Widening the door sill to allow for the safety strip to be fitted*

The train cars measure 17.7metres and the body ends of the cars taper inwards, to allow the cars to safely negotiate bends in tunnels and platforms.

If the width of the door sills was increased, these would foul the loading gauge¹⁷ and differ from the width of the sills on the double doors.

- b) *Moving the safety strip further back into the train carriages to avoid the taper*
This would not meet the RVAR 100mm distance requirement from the door entrances as stated in the RVAR regulations.

As neither of these solutions is appropriate, LU has complied with the spirit of RVAR and provided a visible safety strip, of contrasting colour, within the parameters of the LU infrastructure constraints.

6. The effect which non-compliance would have on a disabled person's ability to use rail vehicles of the description to which the application relates

LU does not believe that this non-compliance would preclude a disabled person to use the refurbished Northern line trains.

LU's approach to RVAR compliance, including the refurbished 95TS, has evolved from work done in relation to the 09TS trains introduced onto the Victoria line. This work included both significant and sustained engagement with the Department for Transport (DfT) and the Disabled Persons Transport Advisory Committee (DPTAC). LU also embarked on considerable community engagement at every stage of the design process, to provide opportunities for disabled people to view and comment on the train before it was introduced.

In 2006, a mock up of a train carriage including all the key features, was put on display in central London. Some key groups, such as the Royal National Institute of Blind People (RNIB) and the Royal National Institute for Deaf People (RNID) now Action for Hearing Loss, were specifically invited to attend the event, and provided with presentations on the proposal. A number of sessions were held and open to any member of the public wishing to attend. During this event, both quantitative and qualitative surveys were undertaken to gather views on the trains design. Eight percent of the quantitative interviews and twenty-three percent of the qualitative

¹⁷ A **loading gauge** defines the maximum height and width for railway vehicles and their loads to ensure safe passage through bridges, tunnels and other structures.

interviews were undertaken with disabled people. In 2007, the mock up was displayed at a Disability Capital event, to provide disabled people with an additional opportunity to view and comment on the train.

Following the introduction of the Victoria line 09TS, a number of events were held for disabled stakeholders to view the train. The aim of these events was to complete the process of consultation which occurred throughout the train design process, and assess how successfully RVAR criteria had been applied to provide an accessible train. This included specifically targeting groups representing disabled people who were based locally to the Victoria line, including Mencap Waltham Forest and Disability Lambeth.

The events were attended by over 60 people including older people and stakeholders with a range of impairments. Attendees provided feedback on both the positive aspects of the new train, as well as areas they thought could be improved. The comments were largely favourable, with people referring particularly to the level access, improved space and lighting in the carriage and announcements indicating on which side of the train the doors would open.

The feedback gathered through engagement in relation to the Victoria line 09TS design enabled LU to retain and build on the features identified as good and seek to make further improvements in the design of the new S Stock trains, which are being introduced onto the Metropolitan, Hammersmith & City, Circle and District lines. As far as possible, similar improvements have also fed into the design for the refurbished 95TS train, recognising that refurbishment offers fewer possibilities for introducing best practice.

7. Any measures which could be taken to enable disabled persons to use the rail vehicle if exemption sought is granted

Refurbished Northern line trains will have safety strips of contrasting colour retrofitted onto doors sills on the fleet.

The refurbished carriages on the Northern line comply with the other RVAR requirements in relation to available wheelchair spaces, signage, passenger information displays, and contrasting interior colours.

We believe these enhancements greatly improve a disabled person's ability to travel on the Northern line.

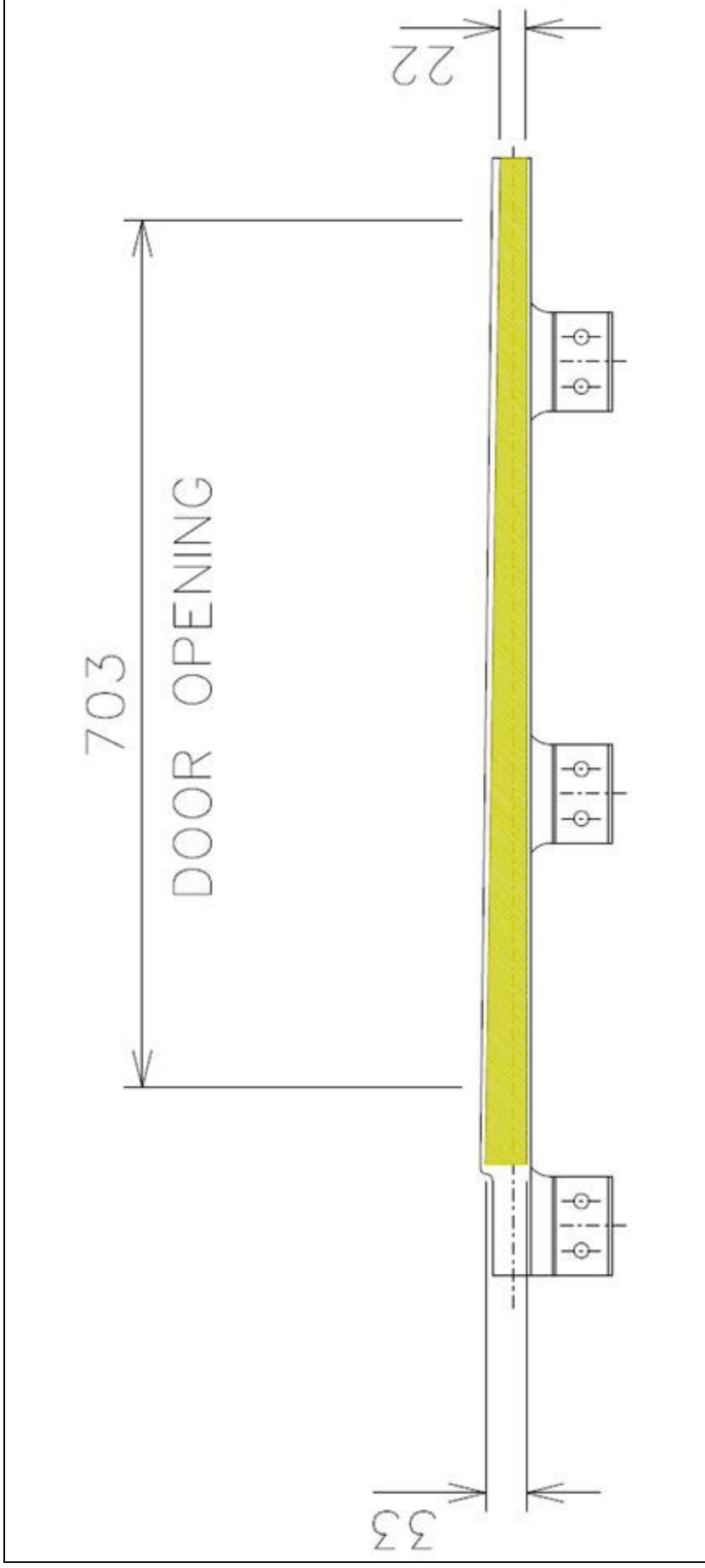
8. Any proposals for later modification of rail vehicles to secure compliance with RVAR within a stated period

As set out in paragraph 5 above, existing infrastructure precludes LU's ability for full compliance with RVAR in relation to the width of the safety strip on single door sills.

9. Unless permanent exemption sought, the period during which exemption is to apply.

LU is requesting a permanent exemption in relation to the width of the safety strip installed at single doors on the Northern line fleet.

Appendix A – Single door sill diagram



1. Full name of applicant and address

London Underground Limited
55 Broadway
London
SW1H 0BD

2. Description of Rail Vehicles

Existing 95TS Fleet								
Leading Driving Motor			Trailer			Middle Uncoupling Non Driving Motor		
51501	to	51539	52501	to	52539	53501	to	53539
51579	to	51619	52579	to	52619	53579	to	53619
51661	to	51686	52661	to	52686	53661	to	53686
51540	to	51578	52540	to	52578	53540	to	53578
51620	to	51660	52620	to	52660	53620	to	53660
51701	to	51726	52701 (D)	to	52726 (D)	53701	to	53726

Note: (D) de-icing units

3. Circumstances in which exemptions are to apply

At all times while the train is in passenger service at the platforms as set out in Appendix A.

4. Relevant requirements from which exemption is sought

Schedule 1, Part 1 (General Requirements) of the Rail Vehicles Accessibility Regulations (RVAR) 2010, paragraph 11 (5):

11(5) 'Whilst a rail vehicle is stationary at a station or stop any public address systems required to be fitted inside the vehicle, and on its exterior, must be used to announce the destination of the vehicle or, if it is following a circular route, the name or number of the route and, in the case of systems inside the vehicle only, to announce the next stop.'

5. Technical, economic and operational reasons why exemption is sought

London Underground (LU) is seeking an exemption that would allow the “next station” or the “destination station” information inside the saloon to be given during the times that the doors are closing or after the doors have closed at some of the platforms on this line. This is to allow for the provision of other important safety and customer station information during the short dwell times at those platforms instead.

LU is committed to providing sufficient, accurate, accessible and timely information to enable our customers to be confident during their journey, make informed decisions and minimise the impact of disruption. Northern line trains provide a fast, frequent service with short station stops. This greatly limits the amount of information we are able to provide.

During the short ‘doors-open’ period, LU currently provides RVAR compliant information about the destination station and any branch in service (via Bank or Charing Cross). We also provide current station information, including the name of the current station and any safety information such as certain carriage doors not opening as these cannot be accommodated within the length of the platform or excessively large gaps between the train and the platform.

There is not sufficient time to provide both the current information and the name of the next stop within the ‘doors-open’ time at all the platforms on the Northern line as required by RVAR.

Giving all of this information during the ‘doors-open’ period, would increase the dwell time at a large number of platforms, which would have a cumulative effect along the entire journey. This would increase journey times for customers across the whole fleet, greatly reducing the line capacity and benefit gained from line upgrade improvements.

LU understands the main intention behind requiring next stop and destination information while stationary at a platform, is to help customers differentiate between fast and stopping services to the same destination. This type of operation does not occur on the Northern line. This line runs on a simple and straight forward route with trains stopping at all stations on the relevant branch.

Therefore, LU believes that the 'current station and branch' and 'destination station' announcements currently made during the 'doors open' period, serve the same purpose in providing reassurance to customers that they are in a train heading in the right direction.

We believe that this purpose can be served equally well by making next stop or destination announcements after the doors have closed which is the current practise on the Northern line. This would allow the short period of doors-open time to be utilised for key information about the current station, including safety information, and allow the train to depart promptly.

However, at certain points on the Northern line, the service becomes more complicated. In particular, where the service splits into different branches or the train terminates and turns around for operational reasons. See Appendix B.

LU recognises the impact these route variations may have on our customers' confidence that they are boarding or on board the correct train. To ensure that customers have sufficient and appropriate information, LU currently gives branch and destination station information. Furthermore, we have committed to give all regulated information about both the next station and final destination in full during the doors-open time at a number of key platforms. This information will be given immediately prior to a junction or split in service, where action or reassurance may be required.

These key platforms are:

Southbound Platforms

- Camden Town (Platforms 2 and 4 - service splits into Bank or Charring Cross branch)
- Euston (Platforms 2 and 6 - both branches interchange)

Northbound Platforms

- Camden Town (Platforms 1 and 3 - service splits into High Barnet, Edgware or Mill Hill East)

- Euston (Platforms 1 and 3 - both branches interchange)
- Finchley Central (Platform 2 – service splits to Mill Hill East or High Barnet)
- Kennington (Platforms 1 and 3 - service splits into Bank and Charing Cross branch and High Barnet, Edgware or Mill Hill East)

In addition, once the Northern line extension is complete in 2020, the above protocol will be applied at Kennington for the stations at Nine Elms and Battersea Power Station for both Northbound and Southbound trains.

LU is not requesting exemptions for the above platforms.

At terminus platforms, trains entering service have an extended doors-open period. This means that at these platforms, there is sufficient time to provide all of the necessary information, including both next stop and destination. All regulated information will be given at the following terminus platforms when the train enters service:

- Colindale (Platform 2)
- East Finchley (Platforms 1 and 2)
- Edgware (Platforms 1, 2 and 3)
- Finchley Central (Platforms 1, 2 and 3)
- Golders Green (Platforms 3, 4)
- Hampstead (Platform 2)
- High Barnet (Platforms 1, 2 and 3)
- Kennington (Platform 1)
- Mill Hill East (Platform 1)
- Morden (Platforms 2, 3, 4 and 5)

LU is not requesting exemptions for the above platforms.

At all other platforms, we are requesting an untimed exemption that allows us to give next stop information after the doors have closed, if necessary, rather than while the train is stationary.

The information will also be given in both audible and visual formats during the journey between the stations in good time to enable customers to prepare themselves for any action needed.

Customers on the platform will be able to get information about the destination of trains from a range of sources including audible station announcements, platform “next train” display indicators, visual displays on the front of the train and fixed signage such as network maps.

LU is currently required to give the following information:

“The next station is Clapham Common. This train terminates at Morden”

Some additional routine pieces of information given by the on train customer information system at stations and between stations to assist and inform customers on the Northern line:

- Change here for Moorfield’s Eye Hospital and Main line Suburban rail services
- Change here for the Circle and Hammersmith, Metropolitan, Piccadilly and Victoria lines, Main line Suburban and International rail services.
- Change here for Southbound Northern line services via Bank, from platform 6, Victoria line and Main line Intercity and Suburban rail services
- Upon arrival, the last set of doors will not open. Customers in the last carriage please move to the front doors to leave the train.
- Please mind the gap between the train and the platform.

The exact combination of information messages given in the “at station” announcement will be specific to each individual platform. The information given is prioritised according to its usefulness and importance to our customers. Exemptions have previously been granted to the Victoria and Sub-surface lines on the same basis.

6. The effect which non-compliance would have on a disabled person's ability to use rail vehicles of the description to which the application relates

LU does not believe that this non-compliance would have any effect on a disabled person's ability to use the Northern line. We firmly believe that it would in fact enable us to provide a better service to customers.

LU's approach to RVAR compliance, including the refurbished 95TS, has evolved from work done in relation to the 09TS trains introduced onto the Victoria line. This work included both significant and sustained engagement with the Department for Transport (DfT) and the Disabled Persons Transport Advisory Committee (DPTAC). LU also embarked on considerable community engagement at every stage of the design process, to provide opportunities for disabled people to view and comment on the train before it was introduced.

In 2006, a mock up of a train carriage including all the key features, was put on display in central London. Some key groups, such as the Royal National Institute of Blind People (RNIB) and the Royal National Institute for Deaf People (RNID) now Action for Hearing Loss, were specifically invited to attend the event, and provided with presentations on the proposal. A number of sessions were held and open to any member of the public wishing to attend. During this event, both quantitative and qualitative surveys were undertaken to gather views on the trains design. Eight percent of the quantitative interviews and twenty-three percent of the qualitative interviews were undertaken with disabled people. In 2007, the mock up was displayed at a Disability Capital event, to provide disabled people with an additional opportunity to view and comment on the train.

Following the introduction of the Victoria line 09TS, a number of events were held for disabled stakeholders to view the train. The aim of these events was to complete the process of consultation which occurred throughout the train design process, and assess how successfully RVAR criteria had been applied to provide an accessible train. This included specifically targeting groups representing disabled people who were based locally to the Victoria line, including Mencap Waltham Forest and Disability Lambeth.

The events were attended by over 60 people including older people and stakeholders with a range of impairments. Attendees provided feedback on both the positive aspects of the

new train, as well as areas they thought could be improved. The comments were largely favourable, with people referring particularly to the level access, improved space and lighting in the carriage and announcements indicating on which side of the train the doors would open.

The feedback gathered through engagement in relation to the Victoria line 09TS design enabled LU to retain and build on the features identified as good and seek to make further improvements in the design of the new S Stock trains, which are being introduced onto the Metropolitan, Hammersmith & City, Circle and District lines. As far as possible, similar improvements have also fed into the design for the refurbished 95TS train, recognising that refurbishment offers fewer possibilities for introducing best practice.

We believe that there are a number of other audible and visual sources, both inside the train and on the platform, which enable a disabled customer to be confident in the direction of the train and next station that the train will call at.

7. Any measures which could be taken to enable disabled persons to use the rail vehicle if exemption sought is granted

LU does not believe that this non-compliance disadvantages customers using the Northern line. All regulated information will be given at key platforms where passengers need to take action or require extra assurance that they are on the correct train. At all other platforms, the information will be given, although some parts of the message may be given after the doors close.

In addition **all** of the regulated information will be provided in both audible and visual formats within the train between stations. The information is also available from a variety of sources on the platform before the train arrives and when it is stationary.

8. Any proposals for later modification of rail vehicles to secure compliance with RVAR within a stated period

The information systems in the refurbished 95TS trains are capable of complying with this Regulation. However in operational terms to ensure that all announcements were fully compliant with RVAR, we would need to extend dwell times at a significant number of stations which would have a cumulative effect along the entire journey. This would

increase journey times for passengers across the whole fleet which would greatly reduce the benefit gained from the Upgrade improvements.

9. Unless permanent exemption sought, the period during which exemption is to apply.

LU is requesting an untimed exemption for the platforms listed in Appendix A. LU will monitor the ongoing impact of these arrangements on the Northern line. In addition we will use any lessons learned by the Victoria, Circle, District, Hammersmith and City and Metropolitan lines, whose new trains have previously been granted similar exemptions. LU will use customer feedback to determine whether there is any significant evidence that this exemption is causing a problem for customers.

Appendix A – Platforms under this exemption

Station	Platform	Exemption Applied for	Key Location Status
Angel	1	Yes	None
Angel	2	Yes	None
Archway	1	Yes	None
Archway	2	Yes	None
Balham	1	Yes	None
Balham	2	Yes	None
Bank	3	Yes	None
Bank	4	Yes	None
Belsize Park	1	Yes	None
Belsize Park	2	Yes	None
Borough	1	Yes	None
Borough	2	Yes	None
Brent Cross	1	Yes	None
Brent Cross	2	Yes	None
Burnt Oak	1	Yes	None
Burnt Oak	2	Yes	None
Camden Town	1	No	Service Splits
Camden Town	2	No	Service Splits
Camden Town	3	No	Service Splits
Camden Town	4	No	Service Splits
Chalk Farm	1	Yes	None
Chalk Farm	2	Yes	None
Charing Cross	5	Yes	None
Charing Cross	6	Yes	None
Clapham Common	1	Yes	None
Clapham Common	2	Yes	None
Clapham North	1	Yes	None
Clapham North	2	Yes	None
Clapham South	1	Yes	None
Clapham South	2	Yes	None
Colindale	1	Yes	None
Colindale	2	No	Enter Service
Colliers Wood	1	Yes	None
Colliers Wood	2	Yes	None
East Finchley	1	No	Enter Service
East Finchley	2	No	Enter Service
East Finchley	3	Yes	None
East Finchley	4	Yes	None
Edgware	1	No	Terminus
Edgware	2	No	Terminus
Edgware	3	No	Terminus
Elephant & Castle	1	Yes	None
Elephant & Castle	2	Yes	None
Elephant & Castle	3	Yes	None
Elephant & Castle	4	Yes	None

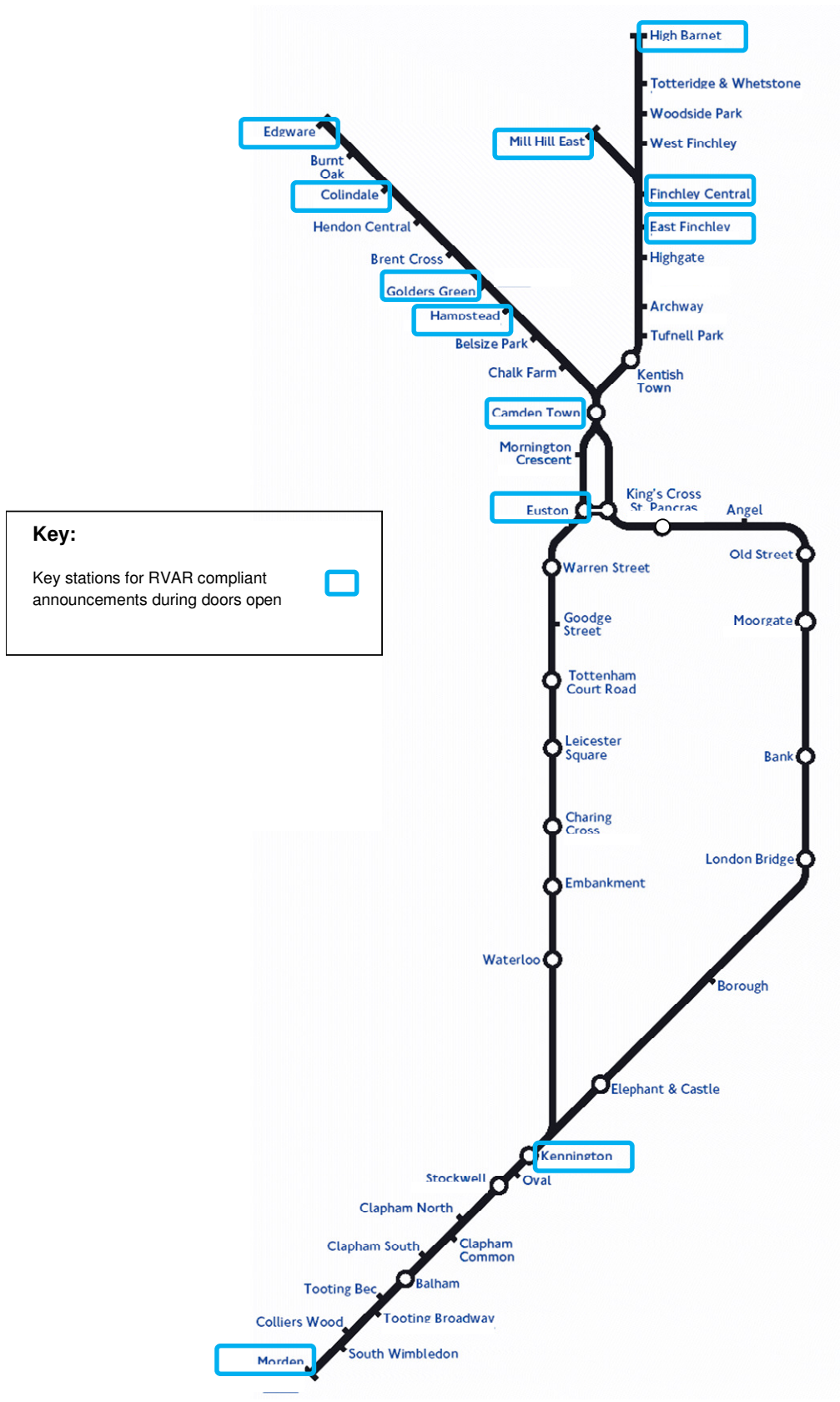
Embankment	3	Yes	None
Embankment	4	Yes	None
Euston City	3	No	Service Splits
Euston City	6	No	Service Splits
Euston Charing Cross	1	No	Service Splits
Euston Charing Cross	2	No	Service Splits
Finchley Central	1	No	Terminates/Enter Service
Finchley Central	2	No	Service splits
Finchley Central	3	No	Enter Service
Golders Green ¹⁸	2	Yes	None
Golders Green	3	No	Terminates/Enter Service
Golders Green	4	No	Enter Service
Golders Green	5	Yes	None
Goodge Street	1	Yes	None
Goodge Street	2	Yes	None
Hampstead	1	Yes	None
Hampstead	2	No	Enter Service
Hendon Central	1	Yes	None
Hendon Central	2	Yes	None
High Barnet	1	No	Terminus
High Barnet	2	No	Terminus
High Barnet	3	No	Terminus
Highgate	1	Yes	None
Highgate	2	Yes	None
Kennington	1	No	Enter Service/Service Splits
Kennington	2	Yes	None
Kennington	3	No	Service Splits
Kennington	4	Yes	None
Kentish Town	1	Yes	None
Kentish Town	2	Yes	None
King's Cross St. Pancras	7	Yes	None
King's Cross St. Pancras	8	Yes	None
Leicester Square	3	Yes	None
Leicester Square	4	Yes	None
London Bridge	1	Yes	None
London Bridge	2	Yes	None
Mill Hill East	1	No	Terminus
Moorgate	7	Yes	None
Moorgate	8	Yes	None
Morden ¹⁹	2	No	Terminus
Morden	3	No	Terminus

¹⁸ Golders Green platform 1 is only for staff use and not open to the general public

¹⁹ Morden platform 1 is only for staff use and not open to the general public

Morden	4	No	Terminus
Morden	5	No	Terminus
Mornington Crescent	1	Yes	None
Mornington Crescent	2	Yes	None
Old Street	1	Yes	None
Old Street	2	Yes	None
Oval	1	Yes	None
Oval	2	Yes	None
South Wimbledon	1	Yes	None
South Wimbledon	2	Yes	None
Stockwell	2	Yes	None
Stockwell	3	Yes	None
Tooting Bec	1	Yes	None
Tooting Bec	2	Yes	None
Tooting Broadway	1	Yes	None
Tooting Broadway	2	Yes	None
Tottenham Court Road	3	Yes	None
Tottenham Court Road	4	Yes	None
Totteridge & Whetstone	1	Yes	None
Totteridge & Whetstone	2	Yes	None
Tufnell Park	1	Yes	None
Tufnell Park	2	Yes	None
Warren Street	1	Yes	None
Warren Street	2	Yes	None
Waterloo	1	Yes	None
Waterloo	2	Yes	None
West Finchley	1	Yes	None
West Finchley	2	Yes	None
Woodside Park	1	Yes	None
Woodside Park	2	Yes	None

Appendix B – Northern Line Route and Key stations (terminus, service branch)



Addendum - London Underground Northern line Rail Vehicle Accessibility Regulations exemption application
Schedule 1, Part 1, General Requirements paragraph 1(2)

1. Background

London Underground (LU) submitted the Northern line exemption applications to the Department for Transport in May 2014. This addendum updates details set out in part 1 of the applications, which have been revised following changes in the overall programme.

2. Updates

- The date for completion of the refurbished Northern line fleet as currently set out in the part 1 of the applications was December 2014. LU has been advised by the maintainers that the revised refurbishment completion date will be by May 2015. (Exemption application page references: Part 1- pgs 2, 5, 6, 15, 19, 20, 21, 22)
- LU will endeavour to complete the bulk of the RVAR modifications on platforms by May 2015, when it is anticipated that the 95TS refurbishment will be complete. (Exemption application page reference: Part 1- pg 5)
- The exemption request dates set out in Appendix B of part 1 of the applications have been revised in the table below. All other platform details in Appendix B remain unchanged. (Exemption application page reference: Part 1 pgs 14 - 17).

Station	Platform No.	Current exemption request date	Revised exemption request date
Borough	1	March 2015.	None.
Borough	2	March 2015.	None.
Elephant & Castle	1	February 2015.	May 2015.
Elephant & Castle	2	February 2015.	May 2015.
Woodside Park	1	December 2016.	None.
Woodside Park	2	December 2016.	None.

- The exemption request dates set out in Appendix D of part 1 of the applications have been revised in the table below. All other platform details in Appendix D remain unchanged. (Exemption application page reference: Part 1- pgs19 - 23)

Station	Platform No.	Current exemption request date	Revised exemption request date
Camden Town	1	February 2015.	None.
Camden Town	2	February 2015.	None.
Camden Town	4	February 2015.	None.
Colindale	1	March 2015.	July 2015.
Colindale	2	March 2015.	July 2015.
Hampstead	1	April 2015.	August 2015.
Mill Hill East	1	None.	December 2015.
Tooting Broadway	1	February 2015.	June 2015.
Tooting Broadway	2	February 2015.	June 2015.

Office of Rail Regulation

30 June 2014

Dear Mr Bengough,

Thank you for consulting ORR on LU's application for exemptions against *The Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations 2010* for the forthcoming refurbished 1995 Tube Stock to operate on the Northern Line. I apologise that our response is late; this is the result of staff sickness. We have considered whether the proposals have implications for the safe operation of the network, and whether they would have any adverse effect on ORR's ability to apply its enforcement powers in respect of RVAR non-compliances.

Paragraphs 1(1) and 1(2) *Boarding devices at wheelchair-accessible doorways*

ORR does not object to LU's proposals.

However, the circumstances of inconsistent boarding and alighting arrangements for wheelchair users bring safety risks that require effective management. As the network becomes more accessible to wheelchair users there will be an increase in numbers of users and heightened expectations of accessibility across the network. The default perception on the part of users will evolve to the expectation that all locations will be accessible. It is not appropriate to expect wheelchair users to be able to robustly assess the safety of alighting during the short period that doors are open, particularly with the common aversion to being overcarried.

LU should therefore put in place measures to reduce the risks to wheelchair users so far as is reasonably practicable. LU should take into account the foreseeable situation where a wheelchair user boards at a location where level access is available for part or all of the train, particularly onto Car 2 northbound / Car 5 southbound where the out-of-service wheelchair spaces will be situated, and subsequently seeks to alight at a location where it is not safe to do so. Consideration should also be given to the scenario where a wheelchair user has successfully alighted at a location where the platform-train gap is excessive but then attempts to board another train having discovered they cannot leave the platform or station.

LU should also ensure that the operational arrangements to deal with an over-carried wheelchair user at Kennington described in Appendix B are integrated into station management arrangements so that the staff assistance will be available in a timely fashion throughout the hours of operation of the Kennington Loop. Particular elements to consider are the risks from the wheelchair user self-detraining, the risks of harm to staff or members of the public if assisting a wheelchair user to detrain without appropriate facilities, and the risks of operational disruption.

Paragraph 8(6)(a) *Width of safety strip in single doorway*

ORR does not object to LU's proposals.

Paragraph 11(5) *Announcements to be made whilst at a station*

ORR does not object to LU's proposals.

Vehicle identification

It would be helpful in documenting the vehicle numbers if the lists could be presented in numerical order; in the majority of LU's submissions here the presentation of the vehicle numbers appears unnecessarily disordered. As it does not appear relevant to the exemption which Leading Driving Motor, Trailer and Middle Uncoupling Non-Driving Motor is coupled to which perhaps it would be simpler to list the applicable vehicles thus:

<i>Leading Driving Motor</i>	51501-51686; 51701-51726
<i>Trailer</i>	52501-52686; 52701-52726
<i>Middle Uncoupling Non-Driving Motor</i>	53501-53686; 53701-53726

Yours sincerely

Giles Turner
HM Inspector of Railways

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John Bengough
Rolling Stock – Technical &
Accessibility
Passenger Services
Department for Transport

Keith Richards
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2/16 Great Minster House
33 Horseferry Road
London
SW1P 4DR

17 February 2015

Dear Mr Bengough

RVAR Exemption Application – London Underground Northern Line

Thank you for seeking DPTAC's advice on London Underground's (LU) application for exemption, for its Northern Line fleet, from parts of the Rail Vehicle Accessibility Regulations (RVAR).

I understand that you first sought DPTAC's advice in May 2014. This was during a period of review and was followed by a period of recruitment of new Committee Members. The new Committee began in April 2014 and I joined DPTAC as Chair in November 2014.

It has been brought to my attention that despite some correspondence since May 2014 DPTAC has not yet provided its final response to these exemption applications. Please accept my sincere apologies for that.

The Committee recognises that the Northern Line fleet pre-dates RVAR and it welcomes LU's investment in making the vehicles accessible ahead of the 2020 deadline. We look forward to similar investment in LU's remaining fleets.

While we recognise that some Northern Line stations were built over a century ago, we urge LU to make many more stations step-free where possible. In the meantime, however, and based on precedents on the Victoria and Sub-Surface Lines, the Committee does not object to the granting of exemptions from level access between trains and platforms at those stations where there is no step-free access from those platforms to

street level. In addition, we understand the complication arising from the Kennington Loop and, as this does not materially affect the ability of wheelchair users to travel, we do not object to the granting of appropriate exemptions.

Again based on precedents on the Victoria and Sub-Surface Lines, the Committee does not object to the granting of exemptions from requirements relating to the timing of certain announcements, at stations where this adds no value.

However, the Committee wishes to make it a condition of the exemption that LU be required to announce the station at which the train has arrived, and be required to prioritise that announcement as soon as the doors open.

The Committee has no objection to the granting of an exemption relating to the width of the door threshold contrasting strip at the end doors.

Finally, regarding the handling of this Exemption Order in Parliament, we are mindful of the Committee's support for the proposal currently before Parliament that all such exemptions to be handled administratively, rather than by Statutory Instrument. Therefore, the Committee has no objection to the handling of this Exemption Order in Parliament under the "negative procedure".

Yours sincerely,



Keith Richards

Chair, Disabled Persons' Transport Advisory Committee

From: Vincent Stops [<mailto:Vincent.Stops@londontravelwatch.org.uk>]
Sent: 30 January 2015 12:00
To: John Bengough
Cc: Tim Bellenger; Robert Nichols
Subject: FW: London Underground Northern Line - RVAR exemption application - LTW's views

John,

Please accept my apologies for this late response.

We are generally content with all of these exemptions being applied. However, in the case of non compliance with the level boarding requirement I would comment thus:

We agree that the prioritisation suggested is a sensible way of allocating limited resources to those locations that are most likely to benefit most disabled people that require step-free access. However, level access benefits a wider group than just wheelchair users etc. We would therefore want the category D stations to be left to last, but nevertheless be part of a programme that eventually sees platform humps installed at all stations, even where access to the platform itself is not step-free.

Regards

Vincent Stops