



Unlocking London for All

Our plans for a more accessible
Underground network



Foreword

Improving the accessibility of the Underground network is an essential element of our plans to modernise the system. Many cannot use it because they are unable to access the stations and trains. This is largely due to the age of the network, which was designed at a time when access for all was not an issue.

This document sets out what we are doing to make the Underground easier to use for everyone and how we intend to achieve it. It covers more than facilities for wheelchair users; many groups of customers or potential customers will benefit:

- Those who are permanently mobility impaired due to physical, mental or sensory disabilities
- Those with temporary disabilities
- Frail old people
- Those travelling with luggage or heavy shopping
- Those accompanying young children

Improved accessibility is a key element of the Mayor's Transport Strategy and we are working closely with our colleagues in Transport for London to ensure that access improvements across all modes are effectively integrated.

Our ultimate aim is to provide a service that can be accessed by everyone. This will take many years and the twenty-year programme of improvements outlined will not complete the process. Our ultimate objective is a fully accessible network that meets or exceeds the standards achieved by modern metro systems.

Our strategy is a starting point not a fixed or final approach, technology, innovations and experience will create opportunities to provide improved services. We positively welcome comments, ideas and suggestions particularly from those customers who bring specialist knowledge and insight. The strategy will be reviewed from time to time to reflect changing circumstances. Contact details are provided on the following page.



Adam Goulcher
Director of Marketing & Planning
August 2002

Unlocking London for All

This document summarises London Underground's accessibility policy, its vision for the future and its strategy for achieving this vision.

For further information and comments on the issues raised in this document please contact:

Andrew Boag
 Accessibility & Interchange Manager
 Marketing & Planning
 3rd floor
 55 Broadway
 London SW1H 0BD

Phone: 020 7918 3863
 E Mail: boagan@email.lul.co.uk

Contents	Page
1 What do we mean by accessibility?	5
1.1 A definition	5
1.2 Why improve accessibility?	5
2 Our Vision for the future	6
2.1 Unlocking London for all	6
2.2 Our aims	6
2.3 A look into the future – our 2020 vision	7
2.4 Making a journey in 2020 – our aspirations	8
3 Our Strategy	10
3.1 Background and history	10
3.2 Recent experience and lessons learnt	11
3.3 The step-free access development plan	12
3.4 Level access between the platform and the train	18
3.5 Short term improvements	18
3.6 Staff training	20
3.7 Safety	20
3.8 Interfaces with Transport for London and other operators	21
3.9 Communications	22
4 The next stages	23
4.1 Work in progress	23
4.2 Further opportunities	24
4.3 Map	26

1.1 A definition

Accessibility is the ability to use the Underground network, regardless of physical ability, impairment or encumbrance.

Access to London Underground services is taken for granted by many users, but for some there are significant barriers which prevent them from using the system at all. Barriers to access are not confined to wheelchair users and those with other mobility impairments. Low vision or impaired hearing, speech, learning or language difficulties, a weak grip or general frailty can also limit the use of the Underground by potential customers.

Mobility impairment is not restricted to those with a permanent or temporary physical disability. Those travelling with small children and pushchairs and those carrying luggage or heavy shopping are likely to have their mobility restricted. Older people and those with certain medical conditions may also be deterred from travelling.

Even regular users of the Underground will sometimes choose another mode of travel because of the difficulty of negotiating steps or finding their way around unfamiliar stations. A straightforward journey for someone travelling alone with a light bag can become an unpleasant ordeal when encumbered with heavy luggage or young children, especially if changing lines is involved.

1.2. Why improve accessibility?

- (a) London Underground recognises that it has an obligation to provide a service which is available to everyone. This is reinforced by the commercial benefits of improved access which generate additional revenue and customer satisfaction.
- (b) There is a commercial business case. Improved accessibility benefits significant numbers of users and attracts new customers who would not previously have considered travelling by public transport.
- (c) The Disability Discrimination Act, 1995 requires London Underground to make its stations and trains accessible to all. Improved accessibility and social inclusion are also key elements in the Mayor's Transport Strategy.



2.1 Unlocking London for All

We aim to make the Underground easier to use for everyone. There are two main target groups:

- Those who are currently excluded from using the service by physical ability or other impairment, by the absence of suitable facilities, either within the system or accessing it from another mode.
- Those who may already use the Underground but whose journeys could be made much easier and more attractive by the provision of facilities such as step-free access.

2.2 Our Aims

Our overall aim is that customers will trust us to help them move swiftly around London. We aim to be known for a service which is safe, reliable, fast, welcoming, simple and integrated:

- **Safe:** taking care of people so they feel confident and secure
- **Reliable:** setting and delivering consistent service standards, fixing faults quickly and keeping customers informed
- **Fast:** carrying people quickly on trains and through stations
- **Welcoming:** a clean and pleasant environment
- **Simple:** easy to use and understand
- **Integrated:** with all other transport services and accessible to all

Improved accessibility is a key element of these aims. Accessibility means more than delivering customers along a step-free route from the pavement to the train. The overall ambience, customer care and appropriate technology must support the journey and take into account the needs of all customers, including those with mobility or sensory impairments.



2.3. A look into the future – our 2020 vision

By 2020 over 100 Underground stations will have step-free access, opening up large areas of London to many people previously unable to use the network.

Within the central area many of the busiest stations will have been substantially enlarged or rebuilt to our latest standards including step-free access and other accessibility improvements.

Several major infrastructure projects currently in the planning stages should be in use or under construction:

- Crossrail schemes, linking Paddington with Liverpool Street via the West End, providing fast links between west London and the eastern suburbs; also between Hackney and south west London via King's Cross St Pancras and Victoria
- East London Line extensions north to Dalston and possibly further to Willesden Junction or Finsbury Park. To the south new services to West Croydon, Wimbledon and Crystal Palace
- New street-based Transit schemes connecting Camden Town and King's Cross with Waterloo and south London; between Shepherd's Bush and Uxbridge via Uxbridge Road, and in the Barking and Romford areas
- Croydon Tramlink extensions to Crystal Palace and Sutton
- Docklands Light Railway to London City Airport and across the river to Woolwich and Thamesmead

Each of these schemes will be built to the latest standards, with full step-free access at new or rebuilt stations and modern rolling stock which meets the needs of all users

London's bus services will all be operated with fully accessible low floor buses providing easy access to those Underground stations with step-free facilities. With the benefit of advanced bus priority measures they will also be a realistic alternative to the Underground for short journeys and in areas where there are no stations with step-free access.

Many National Rail stations will also be step-free providing local, national and international links. Underground interchange stations and those stations served by Underground trains but owned by Railtrack should have comparable facilities which are easy for encumbered customers to use.





2.4 Making a journey in 2020 - our aspirations

The implementation of large infrastructure projects is dependent on a number of factors, many of which are outside the direct control of London Underground. But there is much that can be done to improve the existing network. With over 100 step-free stations and a fully accessible bus network, a journey around London should be a lot simpler for many people. London Underground aims to achieve this by implementing a number of improvements, most of which will benefit all customers.

a) Information before travelling

- Extensive information will be available on official websites including interactive journey planners which allow step-free routes to be selected. This will allow potential customers to plan their journeys from anywhere in the world
- Telephone and Internet services will be regularly updated to include information about the availability of lifts at individual stations
- Leaflets and other publications will give details of stations with step-free access, plus details of buses and other modes that link districts which do not yet have accessible stations

c) Using a fully accessible station

- Tickets will be available from machines and from ticket offices. Ticket offices will have induction loops and special facilities to serve travellers in wheelchairs. Staff will be trained to provide information and advice
- At busier stations staff will normally be available outside the ticket office to provide assistance to those in need
- Lifts will provide a step-free route to platform level. These may be the main means of vertical access or will supplement stairs or escalators (a few outer suburban stations will continue to have ramped access)
- Lifts will be mostly glass fronted and well-lit for added security. They will also include audible and visual information systems to provide information about routes to platforms and to destinations outside the station
- Stations will have electronic or mechanical guidance systems for visually impaired people
- Tactile strips and suitable markings will be provided on all platforms

d) Using the train

- Level access to and from the train will be provided, where possible throughout the length of each platform. Where this is not feasible a 'hump' will be installed to provide level access to at least one door of the train. The position of this raised area will be clearly marked on the platform and will be consistently located throughout each line;
- Trains will contain audible and visual information systems indicating the next station and final destination, plus interchange facilities where appropriate;
- Standard features will include colour contrasted handrails; designated spaces for wheelchair users, and priority seating for older and ambulant disabled passengers;



3.1 Background and history

Dating back to 1863, the London Underground is the oldest metropolitan railway in the world. The vast majority of the network was planned over a period of time when accessibility was not considered an issue. As a result, only 29 stations out of the 253 owned by London Underground are currently step-free of which eleven are on the Jubilee line extension. A small number of other stations have partial step-free access, usually to one platform only. A further 8 step-free stations served by Underground trains are owned by Railtrack and managed by Train Operating Companies.

The 29 step free stations owned and operated by London Underground are:

Bermondsey	London Bridge
Caledonian Road	North Greenwich
Chalfont & Latimer	Roding Valley
Canada Water	Southwark
Canary Wharf	Stanmore
Canning Town	Stratford
Chesham	Sudbury Town
Chorleywood	Tottenham Hale
Dagenham Heathway	Upney
Elm Park	Uxbridge
Hammersmith (D&P)	Woodford
Hammersmith (H&C)	West Finchley
Heathrow Terminals 123	Westminster
Heathrow Terminal 4	Woodside Park
Hillingdon	

In addition, these 8 step-free stations are served by London Underground but managed by Train Operating Companies.

Barking (c2c)	Richmond (SWT)
Kew Gardens (Silverlink)	Upminster (c2c)
New Cross (Connex)	Wimbledon (SWT)
Olympia (Silverlink)	Willesden Junction (Silverlink)

Although designated 'step-free', the majority of these stations were not designed with access for disabled people in mind and do not meet current standards. Typically, they feature gradients which are steeper than current guidelines allow, and have some degree of step or gap between the platform and train. Furthermore, many are lightly used outer suburban stations, haphazardly scattered around the system. They often have poor interchange facilities and therefore provide limited opportunities for journeys to and from central London, the prime aim of most Underground users.

Until the last decade, little effort had been made to improve access to the Underground. Following a detailed risk assessment in 1993, the ban on wheelchair-use on deep sections of the network was lifted. Since then, wheelchair users have been able to travel anywhere on the Underground, provided they ensure that assistance is available when needed.

In 1996 the London Transport Board approved a policy statement setting out a strategy for improving Underground accessibility. Since then London Underground has started developing an implementation plan for improving accessibility on a network-wide basis. This concentrates on the key area of increasing the number of stations with step-free access. It is apparent that implementation of such a policy will have to be undertaken in a number of stages and a group of priority stations have been identified for conversion over the next twenty years.

3.2 Recent Experience and lessons learnt

Despite the overall age of the system much has been achieved in recent years to bring the Underground up to modern standards:

- Station reconstruction schemes at Hammersmith and Hillingdon have included step-free access between street level and platforms. Lifts have been installed at Tottenham Hale to link the ticket hall and platforms; these also provide level interchange with buses, trains towards Stansted Airport, taxis and car parking facilities
- Eleven new stations on the Jubilee line Extension have opened, all with step-free access and almost level access between the platform and trains on the Jubilee line
- We are working together with Railtrack and other train operators to improve facilities at their stations that are served by Underground trains
- New rolling stock on the Jubilee and Northern lines includes features such as audible and visual announcements, wheelchair spaces and wider doorways. All refurbished stock has received colour-contrasted handrails and most have audible announcements





- Those who may already use the Underground but whose journeys could be made much easier and more attractive by the provision of facilities such as step-free access
- Tactile strips have become standard on modernised platforms and induction loops have been installed at many ticket offices
- Electronic guidance systems for blind and partially-sighted people have been trialed at certain stations
- Interchange with buses has been improved by the large scale introduction of fully accessible low floor buses
- Improved staff training has been introduced, including specific Disability Awareness courses for certain groups of customer-facing staff

In addition, many lessons have been learnt from recent developments and from the experience of other operators, which will enable future schemes to benefit. These include:

- Better lifts - larger 16-person lifts have been adopted as standard. These will have glass door and side panels where practicable for improved visibility and security. Larger lifts will enable more people to travel in each lift and will enable wheelchair users to turn around
- More reliable lifts - some lift designs have failed to meet our performance standards. Modifications or alternative designs will be sought
- The need to ensure that adequate width is provided in low level walkways to avoid the requirement for deflecting/protecting bollards
- Ticket office windows need to take account of the needs of wheelchair users
- The use of certain contemporary materials such as exposed concrete, stainless steel and glass may cause confusion for partially sighted people
- Improving the platform/train interface

3.3 The step-free access development plan

The delivery of new rolling stock and facilities such as tactile markings and induction loops at ticket offices will go some way towards improving accessibility on the Underground. However the provision step-free access routes in stations is a critical element to opening up the network to groups of people who are currently excluded from using the service altogether, or who manage it only with great difficulty.

To achieve this aim a number of locations have been prioritised to form a 'Key Network' of step-free stations which will be delivered over the next twenty years. This long time period reflects the scale of the work involved including the likely availability of finance and engineering resources, together with the need to minimise disruption during construction. Together with the existing step-free stations there will be a Key Network of over 100 fully accessible stations by around 2020.

Key Stations have been selected on the following criteria:

- Above average usage
- Station layout
- Interchange opportunities with other modes (buses, National Rail, car parking)
- Local amenities (shopping centres, major hospitals, etc)
- Geographic coverage (the network includes at least one station in every London Borough served by the Underground)
- Route coverage (access to every major branch of the network)

These criteria mean that adding a relatively small number of key stations to the existing accessible network rapidly increases the potential for wholly step-free travel. Also, many groups of users, such as those with mobility impairments or carrying heavy luggage will derive some benefit from some part of their journey being step-free.

It is estimated that completion of the Key Network will result in 42% of all journeys capable of being wholly step-free and 64% of journeys partly step-free. However it is likely that wheelchair users and many encumbered customers will prefer to use stations which have step-free access. Catchment areas of these stations will therefore be wider than stations without step-free access and the actual number of wholly step-free journeys that benefit could be as high as 75%.

Under the PPP, Infrastructure companies (Infraco's) will be contractually obliged to provide step-free access at designated stations at their expense. These are all surface level stations where the construction of lifts is not expected to require land acquisition via the Transport and Works Act.

At most of the other stations, works will be initiated by London Underground. New lines, such as Crossrail, may involve one Transport & Works Act application covering several stations.



The following stations have been designated as new Key Stations:

The earliest completion dates shown against each station are conditional upon:

- The availability of funding for LU sponsored projects (for most of those not shown as 'In PPP Contract')
- Satisfactory engineering feasibility studies
- Opportunities for synergy with station modernisation schemes, major station upgrades and new lines

Significant delays to these dates could occur in the absence of some or all of these factors

	Station	Comment/Status	Earliest completion date
1	Acton Town	In PPP Contract	2003
2	Archway	May be linked to local regeneration scheme	2006
3	Baker Street	Linked to congestion relief scheme proposals	2014
4	Balham	Likely engineering difficulties	2024
5	Bank	Likely engineering difficulties	2009
6	Blackfriars	Linked to Thameslink 2000 proposals	2006
7	Bond Street	Could be linked to Crossrail proposals	2011
8	Brixton	Project on-site now	2003
9	Camden Town	Linked to station re-development proposals	2008
10	Charing Cross	May be linked to proposals for Embankment	2015
11	Cockfosters/ Oakwood	Oakwood is currently in PPP Contract but may be substituted by Cockfosters	2013
12	Ealing Common	Provides interchange with Uxbridge Road Transit scheme	2015
13	Ealing Broadway	Station owned by Thames Trains. Provides interchange facilities	2015
14	Earl's Court	Project on-site now	2005
15	East Ham	Project on-site now	2002
16	East Putney	In PPP Contract	2011
17	Edgware	In PPP Contract	2009
18	Elephant & Castle	May be linked to local regeneration scheme	2011
19	Embankment	Could be linked with proposals for Charing Cross	2014
20	Euston	Could be linked to property development scheme and Euston Square	2007

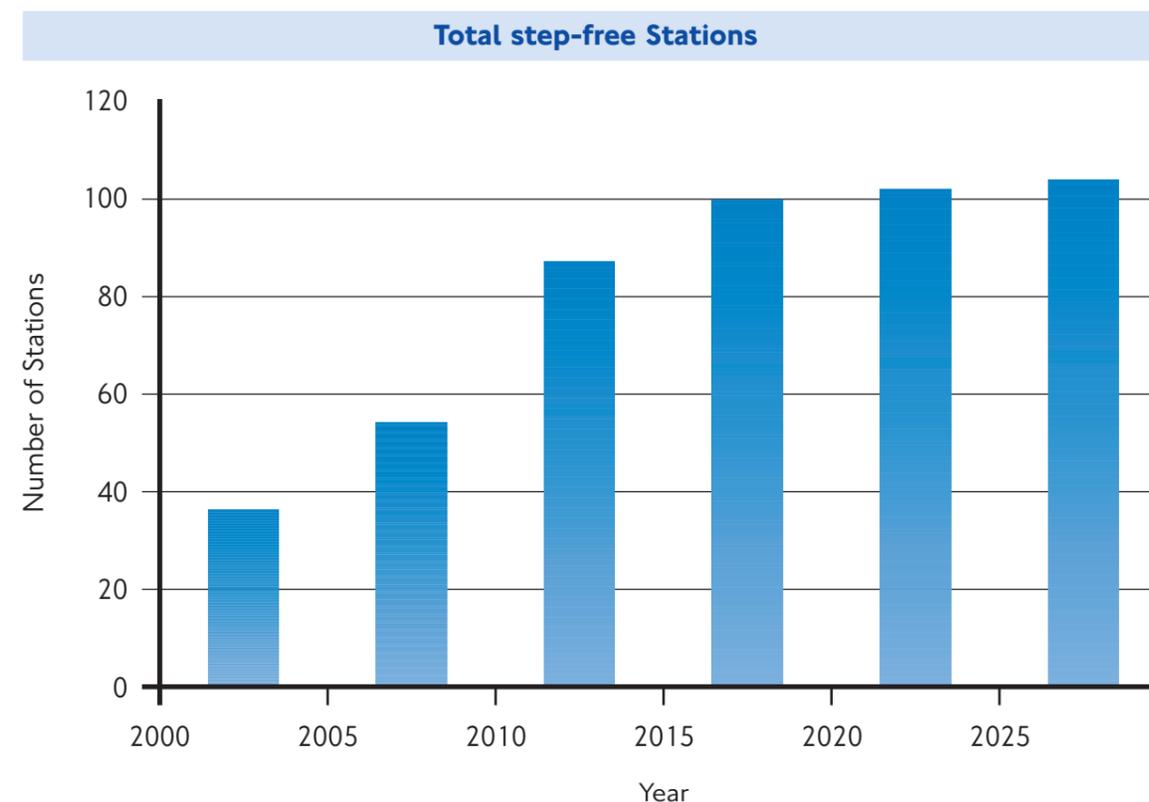
	Station	Comment/Status	Earliest completion date
21	Euston Square	Property Development scheme proposed, possible link to Euston	2005
22	Farringdon	Connected to both Crossrail and Thameslink 2000 proposals	2005
23	Finchley Central		2006
24	Finchley Road	Possible link to property development	2006
25	Finsbury Park	Scheme designed. Master plan being developed for entire station including surface level platforms	2008
26	Fulham Broadway	Project on-site now	2002
27	Gants Hill	Provides connection to East London Transit	2013
28	Golders Green	In PPP Contract	2004
29	Green Park	Feasibility Study undertaken. Likely to be linked to ticket hall improvements	2008
30	Greenford	In PPP Contract	2006
31	Hainault	In PPP Contract	2004
32	Harrow-on-the-Hill	In PPP Contract	2007
33	Hendon Central		2006
34	High Barnet	In PPP Contract	2009
35	High St Kensington		2009
36	Highbury & Islington	Likely to be linked to congestion relief proposals which could involve use of old lift shafts	2006
37	Holborn	Likely engineering difficulties	2012
38	Hounslow East	Project on-site now	2002
39	Kilburn	Project on-site now	2002
40	King's Cross St Pancras	Project on-site now, linked to congestion relief works connected with CTRL	2008
41	Knightsbridge	Likely engineering difficulties	2008
42	Ladbroke Grove	In PPP Contract	2007
43	Leicester Square	Scheme being designed in conjunction with congestion relief proposals	2006
44	Leytonstone	In PPP Contract	2005
45	Liverpool Street	May be linked to Crossrail proposals	2006
46	Loughton		2019
47	Manor House	Likely engineering difficulties	2004

	Station	Comment/Status	Earliest completion date
48	Mile End		2012
49	Moorgate	May be linked to Crossrail proposals	2013
50	Morden	In PPP Contract	2004
51	Newbury Park	In PPP Contract	2006
52	Notting Hill Gate	Likely engineering difficulties	2011
53	Paddington	May be linked to Crossrail proposals	2008
54	Pinner	In PPP Contract	2007
55	Rayners Lane	In PPP Contract	2006
56	Russell Square	Scheme designed but likely to be engineering difficulties	2008
57	Seven Sisters	Provides bus and National Rail connections	2016
58	Shepherd's Bush (Central)	Outline scheme designed, linked to White City development proposals	2006
59	South Kensington	May be linked to property development scheme	2008
60	Stockwell		2011
61	Tooting Broadway		2016
62	Tottenham Court Road	Linked to congestion relief scheme, and possibly Crossrail	2008
63	Tower Hill		2012
64	Turnham Green	In PPP Contract	2010
65	Vauxhall		2015
66	Victoria	Linked to congestion relief proposals	2014
67	Walthamstow Central	Scheme designed, possibility of property development	2011
68	Waterloo	Scheme designed using old lift shafts, could be linked to property development	2008
69	Wembley Park	Linked to station redevelopment proposals	2005
70	West Brompton	Should be on-site now, delayed by local objections	2008
71	West Ham	Project on-site now	2002
72	West Hampstead	May be linked to other station improvements	2005
73	Whitechapel	Linked to congestion relief and platform remodelling scheme	2007
74	Wood Green		2020

As the development plan is spread over a twenty-year period some changes to the plan can be expected. New opportunities may prompt the substitution of one station for another at a nearby location which fulfils similar criteria. Such opportunities could well be financial investment derived from other sources, such as those driven by property developments, Central Government or Local authority sponsorship.

The cost of providing this priority network of Key stations is estimated at £300-400 million at 2002 prices. This is based on cost information obtained from projects carried out so far and from initial feasibility studies at a sample of stations across the network.

Many individual station projects will be combined with other modernisation works, as opportunities will arise for synergy. Experience so far has shown that it is often difficult to separate the cost of providing step-free access from other related improvements.



3.4. Level access between the platform and the train

The step between the platform and the train remains an obstacle at most stations. A full resolution of the problem must await new trains or major track and station works. As an interim measure, London Underground has developed a 'hump' that can be adapted to suit individual locations. It can be approached from both sides, along the platform length and has a flat waiting area at its peak. One hump per platform will enable level access to and from the train at a minimum of one doorway. This will apply on all platforms at stations with step-free access except where level access is provided throughout the platform.

3.5 Short term improvements

As a first stage, London Underground will ensure that the following improvements are implemented at all stations as they are refurbished or modernised:

- Guidance systems for visually impaired people
- Tactile markings
- Colour contrasted handrails
- Tonal contrast to highlight hazards and physical obstructions
- Induction loops at ticket offices
- Clear audible and visual information systems

These improvements are included in the PPP Contract and will be implemented by Infraco's during the first seven years of the contract.

London Underground's new rolling stock must comply with the Rail Vehicle Accessibility Regulations (RVAR) which apply to all new trains entering service after 31 December 1998. In recent years new trains have been built for the Central, Northern and Jubilee lines, all of which were in production before December 1998 and are not covered by the RVAR. If the RVAR is extended to refurbishment of trains then other stock may need to be modified. This will be carried out under the PPP Contract, which has provision for a change in law.



Conformance to the RAVR of recent rolling stock deliveries

	Jubilee line	Northern line	Central line
Door size	yes	yes	yes
Door closing alarm	yes	yes	yes
Wheelchair space	yes	yes	no
Audio announcements	yes	yes	yes
Visual announcements	yes	yes	no
Colour contrasted handrails / grab rails	yes	yes	yes
Evacuation requirements by "carry sheets"	yes	yes	yes
Level access between platform and train at two doorways	yes at certain platforms*	no	no
Priority seating	yes	yes	yes

* Almost level access is available at most doorways at stations from Westminster to Stratford inclusive.

By comparison, refurbished rolling stock on other lines achieves the following level of compliance:

	Victoria, Bakerloo ('1967' & '1972' stock)	Metropolitan, Circle Hammersmith & City ('A' & 'C' stock)*	Piccadilly ('1973' stock)
Door size	no	no	no
Door closing alarm	yes	yes	yes
Wheelchair space	no	no	no
Audio announcements	yes	yes	no
Visual announcements	no	no	yes
Colour contrasted handrails / grab rails	yes	yes	yes
Evacuation requirements by "carry sheets"	no	no	no
Level access between platform and train at two doorways	no	no	no
Priority seating	yes	yes	yes

Note* - 'C' stock also operates District Line services between Edgware Road and Wimbledon. Remaining District Line services are provided by unrefurbished 'D' Stock.

Under PPP, it is the responsibility of each Infraco to decide when new rolling stock is required. They have fixed dates by when the rolling stock needs to be refurbished, but they take a decision on replacement. This could be affected by a number of factors including the service performance requirements of the Contract.



3.6 Staff training

Training is an essential element. London Underground will ensure that disability awareness training is given to staff. It will concentrate on those who carry out customer-facing duties in stations and on trains.

The current position is that Station Assistants are given two-hour training on 'all needs awareness' as part of a five-day training programme for new recruits. It is intended that other customer-facing station staff will also receive suitable training. TfL Access & Mobility runs a one-day Disability Awareness Course that is available to all TfL and London Underground staff on a voluntary basis. It is designed to give bespoke training to selected personnel.

Staff training will emphasise that not everybody is able to see, hear and move easily. Many common impairments may not be immediately obvious, such as deafness, partial sight and arthritis. Specific guidance will be given for communicating with disabled people. Where staff facilitate the evacuation of passengers they will be trained to take account of the needs of customers with reduced mobility. This will include providing emergency information in visual and audible forms for people with sensory or learning disabilities and ensuring help is on hand for those who have arranged for assistance during their journey.

London Underground is reviewing its training requirements to ensure that they are updated to meet future needs. Consideration is being given to new refresher courses so that Underground staff are continually aware of how they can help customers in need.

3.7 Safety

Safety is a top priority. London Underground will ensure that all improvement schemes are designed and implemented to appropriate standards. These standards ensure that the risks to customers, staff and contractors are identified and that adequate controls are in place to manage the risks to a level that is as low as reasonably practical. Special attention will be given to ensure that the requirements of disabled and other encumbered users are clearly identified.

Procedures for emergency evacuation are being reviewed to take account of the increased assistance that will be required, particularly for wheelchair users. These procedures will cover all stations in recognition of the fact that emergencies may arise during a journey and wheelchair users may need to be evacuated through tunnels or stations without suitable infrastructure.

3.8 Interfaces with TfL and other service providers

The Key Network proposals will still leave the majority of stations inaccessible to certain users. London Underground will work closely with other modes to ensure an integrated approach is adopted throughout the capital:

- Buses
- Railtrack and the Train Operating Companies
- Taxis
- DLR
- Trams

Where physical solutions to improve access at particular locations are extremely difficult, there will be reliance on other transport modes to ensure that impaired customers have the ability to complete their journey.

To comply with the Disability Discrimination Act all buses have to be accessible to disabled people by 1 January 2017. With over half the 5,700 buses in London already accessible it is clear that a fully compliant bus network can be achieved long before that date. Low floor buses act as feeders linking step-free stations with other areas and provide a convenient alternative to the Underground for many shorter journeys.

Example: Stratford station is step-free between the Bus Station and the Jubilee line, the Central line, DLR, the Silverlink North London Line and First Great Eastern platforms serving stations to Southend and Chelmsford. Over half of the 11 bus routes that terminate in the Bus Station are operated with wheelchair accessible low floor buses, enabling customers to reach a variety of destinations in east London.

The Public Carriage Office currently regulates 20,000 licensed taxis plying for hire, all of which can take wheelchairs and have facilities for mobility impaired users such as level floors, intermediate steps, contrasting handrails and swivel seats. By 2004, the PCO will have licensed all Private Hire operators, drivers and vehicles (mini-cabs). This mode is more likely to act as pre-booked feeders to Underground stations. With the provision of step-free, safe routes between the stations and the taxi ranks, network accessibility can be extended giving customers a choice in their mode of travel.



London Underground will continue to discuss with other operators and TfL the benefits to customers that can be delivered by joint solutions from a common approach and will implement them where possible. This principle is particularly applicable to the implementation of the Key Network proposals, especially where they rely on other modes to provide interchange for London Underground's customers.

London Underground is sensitive towards its heritage; however providing access for all will require the introduction of technical solutions that may appear incompatible with a strict interpretation of conservation rules. London Underground will work closely with local authorities and English Heritage with the aim of achieving a flexible policy to enable the programme to be implemented.

3.9 Communications

London Underground intends to communicate its accessibility strategy widely to local authorities, other transport service providers, groups representing older and disabled people and community organisations.

The intention is to promote accessibility on the Underground through publicity and leaflets describing the concept of a seamless journey between modes for mobility impaired and other encumbered passengers.



4.1. Work in progress

This document has outlined the strategy for the implementation of a more accessible Underground network. Current projects include:

- Major works are now underway at the following stations to provide step-free access:

Brixton	Hounslow East
Earl's Court	Kilburn
East Ham	King's Cross St Pancras
Fulham Broadway	West Ham

- Tactile strips and markings are being applied to stations as they are refurbished or modernised
- An electronic guidance system for blind and partially-sighted people is being tested at Golders Green station
- Platform humps will be installed at West Ham and Dagenham Heathway stations on the District line

Planning work is continuing in the following areas:

- Reviewing the trial installation of platform humps and preparing a programme for similar installations at all stations that currently have step-free routes but not level access between platform and train. Also to investigate potential solutions at stations with compromise height platforms (i.e. those served by trains with different floor heights)
- Working with Department for Transport and other interested parties to ensure compliance with appropriate regulations and legislation
- Undertaking a study into the appropriate use of colour, tonal contrast, manifestation and the use of materials
- Identifying the works required at stations that are already step-free to establish what else is required to bring them up to modern standards
- Ensuring studies take place into the implications of new rolling stock at stations so that there is a consistent policy across London Underground towards providing level access between platforms and trains
- Producing a single reference guide for all accessibility standards within London Underground
- Developing and implementing a full training programme for staff



4.2. Further opportunities

Making the Underground easier to use and more accessible is an ongoing objective. New developments and opportunities for improving the network will be actively sought.

We look forward to working closely with our colleagues in Transport for London to ensure that the Capital has a first class transport network which is fully integrated, providing seamless journeys for everyone, regardless of physical ability, impairment or encumbrance.

London Underground welcomes feedback on this document and suggestions for improvements. We will consult and invite interested parties and groups to contribute their own ideas for improvements and solutions. We will continue to learn from the experiences of other transport operators and will trial new facilities and working practices.

We will involve our staff, especially those working on the front line with our customers, to obtain their comments and suggestions and we will strive to improve the service our staff provide to disabled, older and encumbered users.



KEY NETWORK BY 2020

Station programmed for step-free access by 2020.

Station with step-free access now.

