Line diagram standard

Issue 3
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Foreword

Line diagrams have one of the most important roles within the Transport for London (TfL) information system. They direct the travelling public around our networks from departure point to destination and confirm their chosen route.

Information of this kind must be easy to understand and clear to read. This document sets out the standards that are to be followed when producing line diagrams on behalf of TfL.

More information on TfL design rules are available via the TfL website: tfl.gov.uk/corporatedesign

If you have any queries please contact TfL Corporate Design:
Phone: 020 7126 4462
Internal: 64462
New Johnston Medium is TfL’s corporate typeface and is used on all line diagrams within the passenger environment, as well as signing and a wide range of publicity and other material.

It is highly legible and yet ‘friendly’ in tone.

Lettering on line diagrams must be shown in Corporate blue (NCS S 4060-R80B) unless stated otherwise. It is to be upper and lower case, not capitals only, and initial capitals are used only for the beginning of a message or for proper names. The use of upper and lower case letters enhances readability when text statements longer than one word are made.
This page identifies the colours for each mode. The colour identity strip at the top of each piece of public service information should use these colours.

The colours refer to colour reproduction using the Pantone Matching System and CMYK process on coated or uncoated paper.

For colour conversion to RGB, websafe and NCS values please refer to the TfL Colour standards.
This page identifies the colours for each London Underground (LU) line. The Colour identity strip at the top of each piece of LU line based public service information should use these colours.
The construction of a TfL line diagram is based around the ‘x’ height of a station or stop name.

This ‘x’ height is equal to the thickness of the route line. The principles of line spacing are also based upon the ‘x’ height value as shown.

Station ticks are 0.66x squared.

On the London Underground Tube map non Underground lines, which would normally be shown as solid lines (such as the London Overground and Docklands Light Railway), are to be displayed as parallel lines.
When a section of line is to be displayed as being out of use due to engineering works the example shown here is to be followed.

‘m’ is equal to 0.33x.

The line colour is always to be displayed in black 30%.
Where a change of direction is necessary the line must be drawn at an angle of 45 or 90 degrees. Where lines run adjacent, 3x is applied to the innermost curve.
Where lines are terminated beyond the display area of the line diagram, the continuation of the line is denoted by an arrows head.
Interchange circles

1. Interchange stations are donated by circles. These circles are always printed in black with the centre left free of any print.

2. Where at a station or stop you have two (or even three) lines sharing the same track and platforms the interchange circle is centred between the lines.

3. Where a customer must change platforms to move onto another line, then more than one interchange circle is to be shown. The circles are drawn so that the outside ring of the circle touches the inside ring of the adjoining circle. A 0.5x white strip is placed across the two circles, thus creating a bridging effect.

4. Where necessary, the dumbbell effect may be used to illustrate the interchange between different platforms.
Flag boxes are ordered alphabetically. The first boxes displayed are always Underground lines followed by other TfL modes (again in alphabetical order) and then National Rail stations.

The boxes print in the appropriate line colour, with the type reversed out of white, except for the Circle, Hammersmith & City and Waterloo & City lines where the type is Corporate blue.

1 Interchanges with London Underground lines
2 Interchange with Docklands Light Railway
3 Interchange with National Rail
4 Walking interchange with National Rail
5 Rail interchange with service to airport
6 Interchange with London Overground
7 Walking interchange with London Overground
8 Direct or walking interchange with London Tramlink
When placed onto a line diagram, the flag boxes and graphic elements are as follows:

1. Interchange with London Underground lines
2. Interchange with National Rail
3. Interchange with London Overground (always display National Rail logo at Overground stations)
4. Interchange with London Underground lines and London Overground station
5. Walking interchange with National Rail (interchange ring omitted and rail logo within flag box)
6. Walking interchange with London Overground (interchange ring omitted and rail logo within flag box)
Flag boxes came in two sizes, single lined or double lined. The standard height for a single lined flag box is equal to that of the cap height of the station name. The double lined version is constructed as shown.

A connection with National Rail is denoted by the National Rail logo. Where the distance is within walking distance and of a different name to the Underground station, the station name and logo appear in an outlined box.

Thickness of black keyline is 0.04CH
The image below illustrates how the elements are put together to construct a line diagram.

Flag boxes are always centred beneath the interchange circle and never above. When a flag box is required, the station name always appears above the interchange circle.
1 Ring to be used where station at the line end is an interchange.
2 Double tab is used to indicate the end of the line.
3 Single tab is used to represent a station or stop.
4 Ring is used to represent an interchange station or stop.
5 Direct joined branch indicates a service that can be reached directly as part of a normal service.
6 A double ring bridging a main and branch line indicates an indirect branch (this can also be used to indicate a very infrequent service).
7 Arrows are used to indicate that a line continues beyond the stations shown.
Vertical platform line diagrams are an integral part of TfL signage systems. They operate slightly differently to the standard line diagram.

The host station name is always to appear first, reversed out of a Corporate blue box. Station names are normally ranged left and to the right of the line. In more complex line diagrams, for example the District and Circle lines, the names may appear on the left where appropriate.

Station name cap heights are $3 \times$ the route line width whilst the depth of the flag boxes is equal to $1.5 \times$ the route line width.

When a vertical platform line diagram is used, the flag box is centred with the cap height of the station name.
Where double circles and branch lines are required for interchanges, the rules shown here, and on the following page, are to be followed.

1. Bridged double circle to denote branch line.
2. Branch line with station name shown below.
3. For triple lines a double ring is used.
4. Where two lines run side by side, the space between the two lines is as shown.
5. For specific areas such as Heathrow, individual solutions will be established to best suit the situation by TfL Corporate Design.
For further information:

These standards intend to outline basic principles and therefore cannot cover every application or eventuality.

In case of difficulty or doubt as to the correctness in the application of these standards, please contact TfL Corporate Design.
Telephone: 020 7126 4462
Internal extension: 64462
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All TfL corporate design standards are available from the TfL internet site.
tfl.gov.uk/corporatedesign

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