



Prepared for:	Transport for London	
By:	TfL Engineering – Highways and Traffic Engineering Team	
Address:	3 rd Floor Palestra 197 Blackfriars Road London SEI 8NJ	

	Authored by	Reviewed by	Approved by
Name:	Korak van Tuyl	Jason Wilton	Nigel Hardy / Lilli Matson
Position:	Design Manager	Principal Engineer Leader	
Signature:	K van Tuyl	J. Wilton	N.Hardy / L.Matson

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Introduction

This note instructs designers of bus stop bypasses of an update to TfL's design guidance, based on the outcome of on-street trials, conducted in 2016-17. It supplements – and does not replace – guidance on bus stop bypass design in the London Cycling Design Standards (LCDS 2014: chapter 4, section 4.2.8, pages 25 to 28) and Accessible Bus Stop Design Guidance (2017: pages 40-42). The advice it contains will be incorporated into those documents when they are next updated.

Through this note, TfL recommends that, for a bus stop bypass (see definition below), a Zebra crossing on a raised table, without zig-zag markings or Belisha beacons, be provided instead of an uncontrolled pedestrian crossing-point between the footway and bus stop island.

TfL expects this advice to be implemented on all schemes designed, delivered and funded by TfL, unless exceptional circumstances apply and any deviation from this advice can be justified. This is because it forms part of TfL's commitment to Healthy Streets, in line with the draft Mayor's Transport Strategy (2017), and to an accessible transport network, as set out in Action on Equality (2016).

This change is based on research specific to bus stops, and patterns of user behaviour relevant to bus passengers. Recommendations set out here do not therefore apply to coach stops, tour bus stops, loading bays or any other instance where pedestrians cross a cycle track. In those cases, choice of crossing type needs to be driven by context and anticipated patterns of use.



1 Bus Stop Bypass definition

This note establishes 'standard layouts' for bus stop bypasses with one-way and two-way cycle tracks. Standardisation of features is desirable for legibility, particularly for visually impaired people. Designers should seek to minimise deviations from these standards. Although it is accepted that site-specific constraints may require different solutions, the principle of legibility should continue to guide the adaptations that designers make to the standard layout.

1.1 Standard Layout

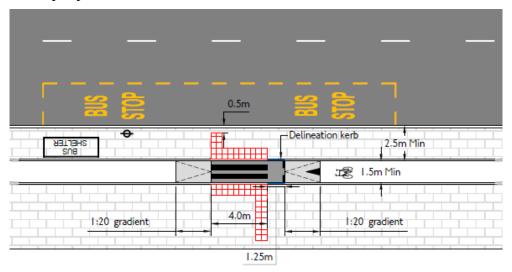
- 1.1.1 The bus stop is served by a TfL bus service, with one bus flag, on an island of minimum 2.5 metre width (stops served by tour buses and/or coach services are not standard layouts)
- 1.1.2 The cycle track runs at a level at least 50mm below the footway and bus stop island or is delineated from the footway and bus stop island using a TSRGD diagram 1049.1 raised delineator strip
- 1.1.3 One crossing-point is provided in the form of a Zebra crossing, but without zig zags or Belisha beacons
- 1.1.4 The Zebra crossing is to be provided on a raised table, which should be local to the crossing-point but in some instances the raised table may extend further (where it does so, the cycle track away from the crossing-point must be delineated from the footway and bus stop island using a TSRGD diagram 1049.1 raised delineator)
- 1.1.5 The Zebra crossing is to be aligned with the position of the rear doors of a two-door bus correctly stopped at the bus stop (the rear of the front doors is aligned with the bus stop flag, and noting that the distance between the centre-lines of front and rear doors on most buses is between 4.8 and 6.0 metres see Accessible Bus Stop Design Guidance 2017, p20 and p48
- 1.1.6 Blister tactile paving is provided at the crossing-point, with tails indicating to users that it is a controlled crossing the tails extend into the island and footway in such a way as to make them detectable for any user walking along either the island or footway
- 1.1.7 Blister tactile paving is of appropriate colour and tonal contrast in order to be distinguishable from the footway material in all conditions – red by default, or dark grey in circumstances described in TfL Streetscape Guidance p131



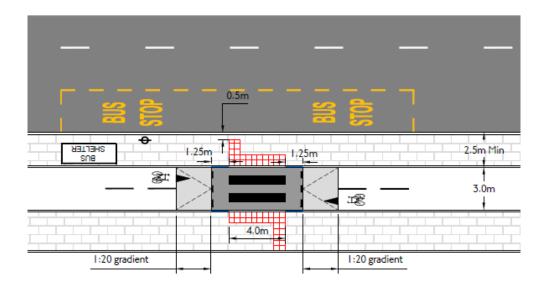
2 Standard Bus stop layout

2.1 A single bus stop with a flag and provided with a shelter if required.

2.2 One-way Cycle Track



2.3 Two-way Cycle Track



In both layouts, the crossing will be located such that the passenger will turn left when exiting the bus to locate the crossing, when one bus is at the stop, and it is stopped in the correct place. When walking from the footway to the bus stop, the passenger turns left to locate the bus stop flag, in the standard layout.

The dimensions indicated are the recommended dimensions unless stated.



3 Exemptions to the Standard Layout

3.1 Courtesy crossing

The Zebra stripes and tactile paving with a tail must be installed together. If either is not possible then the crossing will default to a courtesy crossing.

It is only acceptable to not provide a tactile tail where it could lead a pedestrian into an unclear or unsafe situation.

3.2 Layout

The following exemptions apply where the layout is significantly different from the standard layout:

- 3.2.1 The arrangement is not a Bus Stop Bypass
- 3.2.2 The extents of the bus stop area are designated as shared use footway
- 3.2.3 Lack of intervisibility due to an immovable obstruction, and the crossing cannot be relocated
- 3.2.4 Insufficient space to place a Zebra crossing on the raised table and this cannot be extended or relocated

3.3 Minimum width of raised table

The minimum width for a raised table to be able to accommodate a Zebra, which is

- 3.3.1 3.65m for a one-way cycle track.
- 3.3.2 4.90m for a two-way cycle track.

This is based on the absolute minimum width of a Zebra crossing of 2.4m width, with a minimum of 1.25m to the edge of the ramp.

The 1.25m is based on a 1.1m width from the Zebra crossing to the Give-Way markings, which are 150mm wide. The Give Way markings have to be on the raised table.

These dimensions are the minimum as defined by diagram 1001.4 in the Traffic Signs Regulations and General Directions (TSRGD) 2016.



4 Zebra Crossing with amended facilities

4.1 Relocated Crossing point

Where the standard location for the Zebra crossing is not suitable, an alternative location should be identified as close to the standard location as possible.

This might result in the crossing being located to further away from the bus stop, and the designer should, where possible, position the crossing so that bus passengers turn left when alighting the bus.

If this is not possible it may be necessary to position the crossing elsewhere along the island, but this is less preferable than a courtesy crossing in the standard location.

4.2 Tactile paving

The following conditions may require the tactile tail to be shortened, but only in such a way as to retain legibility as a controlled crossing for users of the footway and bus stop island:

- 4.2.1 Where the footway consists of private land, and there is no agreement for the tactile paving to extend beyond the highway boundary in other words, it is acceptable for the tactile tail to stop short of the rear of the footway provided that it can still be detected by users of the footway
- 4.2.2 Where the tactile paving is curtailed by a physical object e.g. trees, street furniture, either on the footway or bus stop island
- 4.2.3 Where the tactile paving interferes with a third party building or land use.

4.3 Belisha Beacon

By exception, there is scope to install a single beacon or multiple beacons at a Zebra crossing, and this is at the designer's discretion. Justification for doing so could include:

- 4.3.1 Poor lighting conditions
- 4.3.2 Lack of street lighting

Or where the visibility of the crossing is otherwise compromised by:

- 4.3.3 Volume of pedestrians obscuring the crossing location
- 4.3.4 Alignment of approach, particularly gradient causing the crossing-point not to be visible on approach.

