

A.12 Removal of Road Centrelines

Key Principle

Consideration should be given to the removal of centrelines as an option where carriageway widths do not permit the introduction of cycle lanes of adequate width (min 1.5m) whilst retaining two general traffic lanes.

Design Guidance

Background

Cycle Infrastructure design

5.3.1 Removing the centre line can reduce traffic speeds, but the technique is not suitable for all roads.

Some single carriageway two-lane roads do not have enough width to accommodate cycle lanes on each side when they have been marked conventionally, i.e. with a road centre line separating two lanes carrying opposing flows. If cycle lanes are felt to be a desirable addition to such a road, it may be appropriate to remove the centre line and replace the two existing lanes with a single, centrally positioned, two-way general purpose traffic lane with advisory cycle lanes located on either side. This is an example of reallocating road space to benefit cyclists.



Removal of Road Centre Lines, Peterborough (note absence of buffer zone between parked cars and cycle lane: see [A11 Cycle Lanes](#))

Picture: Rob Marshall, ERCDT

In addition to increasing the width available for cyclists, the technique also has a speed reducing effect. This is because, to a certain extent, the layout operates like a single-track road with passing places. Where the need arises for on-coming motor vehicles to pass each other, this is achieved by both vehicles momentarily pulling over into their respective near-side cycle lanes, having first checked to see they are clear of cyclists.

Manual for Streets:

9.3.2 Centre lines are often introduced to reduce risk but, on residential roads, there is little evidence to suggest that they offer any safety benefits.

9.3.3 There is some evidence that, in appropriate circumstances, the absence of white lines can encourage drivers to use lower speeds ...

The value of this technique appears to have been supported by trials in Devizes, Wiltshire, which found that where road centre lines were omitted, the arrangement contributed to a reduction in traffic speeds. It also concluded that there were safety benefits (35% accident reduction) to be gained by removing centre lines in areas subject to 30mph speed limits.

On roads where removal of the centre lines was accompanied by the introduction of cycle lanes, traffic speeds were found to have fallen further. This is believed to be because the cycle lanes create a visual, speed reducing feature by reducing the width of road used by motor traffic. Some highway authorities, including Essex County Council, have now introduced presumptions against the general use of centre lines as part of their speed management strategy. Sometimes, this is simply achieved by omitting to reinstate them after re-surfacing.

This technique is only suitable for roads wide enough to accommodate two 1.5m cycle lanes and a central 3.5 m general traffic lane (6.5m). There should be no significant heavy goods vehicle traffic, and general traffic flows need to be low enough to permit single-lane working. If the road widths exceed 6.5m, the additional space should be used to increase the width of the cycle lanes or introduce a buffer strip between the cycle lanes and any on-street parking bays (see [A11 Cycle Lanes](#)).

References

[LTN 2/08 Cycle Infrastructure Design](#) DfT 2008

[Traffic Signs Regulations and General Directions](#) DfT 2002

[Manual for Streets](#) DfT, Communities & Local Government 2007

[Kernfahrbahn: Core Cycle Lanes](#) – a Swiss website (German Language but to be translated)

[Cycling England Gallery](#) pictorial examples

[London Cycling Design Standards – A guide to the design of a better cycling environment](#) (Sections 3.4, 3.5, and 3.6) TfL 2005

Lancashire - The Cyclists' County ([part 1](#), [part 2](#)) – creating pleasant road conditions Lancashire County Council, 2005

[CTC Benchmarking](#) – Best practice case studies

[National Cycle Network – Guidelines and Practical details](#), Issue 2 Sustrans 1997

Other references

[Cycle Friendly Infrastructure - Guidelines for Planning and Design](#) Bicycle Association et al 1996

Wiltshire County Council/TRL trials in Devizes, 2003/4

Essex County Council, Speed Management Strategy, 2003-2005

Wiltshire County Council, White Line Carriageway Markings, 2004