



# Policy on Provision of Advanced Stop Lines

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## 1. Summary

- 1.1. Advanced Stop Lines are a low-cost but highly-effective way of helping cyclists at traffic lights (“signal controlled junctions” in the jargon), and are becoming increasingly common across the country. We would like to see them at every signal controlled junction in West Berkshire.
- 1.2. This document defines Spokes’ policy, and contains some detailed observations on the design of advanced stop lines.



## 2. Advanced Stop Lines

- 2.1. Advanced Stop Lines are a low-cost but highly-effective way of helping cyclists at junctions. They offer priority in the road space to cyclists at precisely those locations where cyclists have the greatest difficulty and where collisions are most likely to occur.
- 2.2. We would like to see ASLs at every signal controlled junction in Newbury, Thatcham and elsewhere in West Berkshire. We believe that they are more effective in helping cyclists than the majority of more expensive measures. They are exactly the sort of cycle facility on which we would like to see West Berkshire Council spend its money.
- 2.3. This document describes why advanced stop lines are so valuable to cyclists, and discusses a number of design issues which should be taken into consideration when they are planned.

### What is an Advanced Stop Line?

- 2.4. Advanced stop lines are becoming an increasingly common feature at signal controlled junctions countrywide. They are provided to allow cyclists to bypass stationary lines of queuing motor vehicles in safety in order to position themselves more visibly at the head of the queue
- 2.5. The provision of an advanced stop line creates a **reservoir area** in which cycles can wait in front of other traffic. A **cycle approach lane** of significant length should, but is not always, normally be provided to allow cycles to reach the reservoir when vehicles are queuing.

### How ASLs help Cyclists

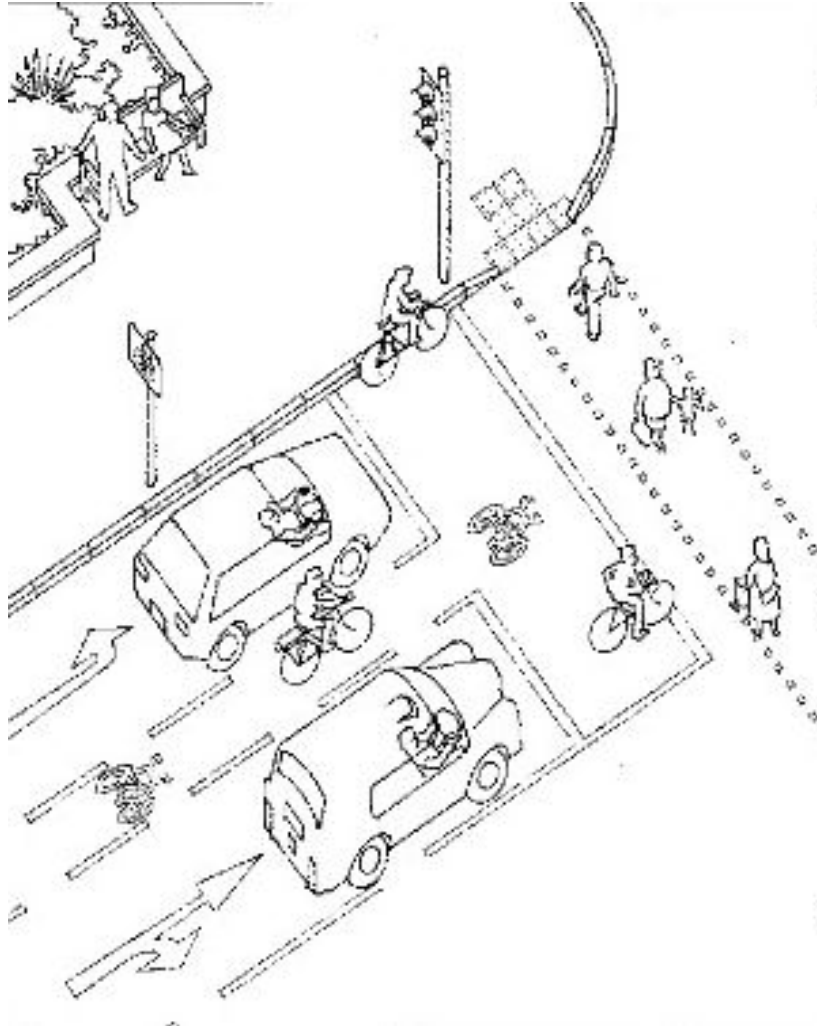
- 2.6. Advanced stop lines help cyclists in a number of ways:
  - They encourage cyclists to position themselves in a position that is highly visible to following traffic. Cyclists waiting by the kerb are much less visible.
  - They allow cyclists to move off first and thereby avoid being 'cut up' by turning traffic
  - They allow cyclists to avoid having to breathe direct vehicle fumes, especially the smoke from badly-maintained diesels.
  - They allow cyclists to carry out more safely and conveniently a manoeuvre that they would perform anyway. At junctions where ASLs are not provided cyclists can frequently be seen waiting out in



front of the waiting traffic, well past the stop line. Cyclists do this for all the reasons mentioned above, not merely to jump the queue.

- They allow cycles to bypass traffic queues safely and conveniently, which helps to encourage cycling as a mode of transport in line with local and national policy.

For these reasons **we would like to see advanced stop lines introduced at every signal controlled junction in West Berkshire.**



### 3. Improving the Design of ASLs

- 3.1. The design of ASLs is well described in the government's Traffic Advisory Leaflets on this subject (references 2 and 3, see Appendix 3), and local authorities have been designing ASLs for several years. It is more than ten years since the first ASL appeared, and since then they have become fairly common. Our experience as cyclists, however, indicates that some of the ASLs are more successful than others and with this experience in mind we would like to make a number of observations on their detailed design.

#### **Coloured Surfacing is essential**

- 3.2. Applying a coloured surface to the reservoir and approach lane has a noticeable effect on the proportion of motorists who respect the advanced stop line. We believe that coloured surfacing is essential and that it should be standard practice at all new ASLs in West Berkshire.

#### **Approach Lanes are essential**

- 3.3. Elsewhere in the country, we have seen advanced stop lines which have been provided at a number of junctions without cycle approach lanes. We think this is a very poor arrangement. To provide an advanced stop line and reservoir without providing an approach lane is, we believe, pointless, because cyclists are unable to reach the reservoir and use it.
- 3.4. At its worst, the provision of an ASL without an approach lane encourages cyclists to pass vehicles on the left when there is insufficient room to do so safely. This can be dangerous, particularly when the vehicle being overtaken is very long, and we would not like to encourage it. We have also observed that motorists, seeing that the reservoir is rarely used, tend to respect it less.



- 3.5. Where the road is wide enough for a cycle approach lane then one should be provided. An approach lane does not have to be as wide as a normal cycle lane because its purpose is to prevent queues of motor vehicles blocking the path of cycles, not to protect cycles from moving cars and lorries. A width of 1m is too narrow for a normal cycle lane but can be adequate for an approach lane. Nevertheless, where sufficient road space is available, full-width cycle lanes should be provided: 1.5m.
- 3.6. Where there really is no room for even a narrow approach lane then we still support provision of an ASL. Providing an ASL in such cases has a certain merit in being a 'political' statement that the road is for cycles as well as motor vehicles, and in no way reduces the usability of a junction for motor vehicle users.

### **Approach Lanes must be wide and long enough**

- 3.7. Where possible, the approach lane should be of standard cycle lane width: 1.5m. However, where road space is at a premium, a substandard lane width of 1m is still of greater value than providing no approach lane at all.
- 3.8. The approach lane should be at least two car lengths long. Very short approach lanes are of little value.

### **The Main Traffic Lane should not be too wide**

- 3.9. A side-effect of providing cycle approach lanes is sometimes to reduce the number of lanes of queuing motor vehicles from two to one. This is often desirable, because in addition to providing more road width for cyclists the single lane of motorised traffic simplifies the traffic flow through the junction and reduces conflict with cyclists.
- 3.10. In some cases, however, the width of the remaining carriageway is sufficiently wide to tempt a second line of motor vehicles to form even if there is no such lane marked. When this happens the left-most lane of motor traffic often encroaches into the cycle approach lane. This problem can be reduced by making the main lane sufficiently narrow, and the cycle lane sufficiently wide, to discourage an additional lane of motor traffic from forming.



## Problems for Right-Turners

- 3.11. If there is a separate traffic lane for right-turning motor traffic, and the signals change to green whilst a right-turning cyclist is still using the cycle approach lane, then that cyclist becomes stuck in the wrong position on the road for turning right. A popular solution to this problem is to provide a second approach lane to the left of the right-turn lane.

## The Reservoir should be full-width

- 3.12. We have seen examples of ASLs elsewhere in the country where the reservoir area does not extend the full width of the main traffic lane. This causes problems for right-turning cyclists because they cannot legally position themselves in front of the traffic in the correct road position for their intended manoeuvre. Worse, it may encourage cyclists intending to turn right to wait on the left-hand side of the road, which is potentially dangerous. We believe, therefore, that ASL reservoir areas should always span the full lane width.
- 3.13. Where full-width ASL reservoirs have been provided they work perfectly well. Cyclists are quite capable of choosing the correct position to wait. Observation of junctions where the ASL reservoir spans two traffic lanes shows that left-turning cyclists wait in front of the left lane and right-turning cyclists wait in front of the right lane.

## Left-turn-only Lanes

- 3.14. Where the left traffic lane is for left turns only then the cycle approach lane should be on its right not to its left (an example of where this might be implemented is at Hambridge Road's junction with London Road where there is little help for cyclists wishing to travel northwards across the junction).



## 4. Improving the Design of ASLs

- 4.1. We would also like to see further experiments with the design of advanced stop lines.

### Eye-Level Signals

- 4.2. At junctions where there is no opposing signal, that is a signal facing the traffic from the opposite side of the junction, cyclists have to use the signal by the stop line. Since cyclists tend to wait closer to the stop line than a car driver does (because the driver sits a metre or two behind the front of their vehicle) they have greater difficulty seeing the signal. We would therefore like to see an experiment with an additional green cycle signal at eye level.

### A "Head Start" for Cycles

- 4.3. Such an eye-level signal could be used to provide cyclists with a 'head start' by changing to green a short period before the main signals. This would help reduce conflict between left-turning motorists and straight-ahead cyclists.
- 4.4. By giving an advance indication that the traffic was about to start moving, this would also help cyclists (especially right-turners) avoid getting caught in an inappropriate position (such as in the approach lane) when the traffic starts to move.

### An "All Green" Phase for Cycles

- 4.5. If such additional cycle signals were provided on all approaches to a junction they could be used to provide an 'all green' phase for cyclists. At such an 'all green' phase, cyclists from all directions would proceed at the same time, without the danger of conflicting with motor vehicles. This is common practice in the Netherlands. It has the particular benefit of helping cyclists turn right, which remains a difficult manoeuvre even with an ASL.



## Appendix 1: Advanced Stop Lines needed

We would like to see advanced stop lines at all signalled junctions in West Berkshire. We believe, however, that the following junctions, in Newbury and Thatcham town centres, should be provided with ASLs as a matter of priority:

### Newbury

- Bear Lane junction with Cheap St.
- Bridge St junction with Bartholomew St (north) and Mansion House St.
- Bartholomew St (north) junction with Market St.
- Pound St junction with Newtown Rd (north).
- Greenham Rd junction with Mill Ln, King's Road and Bear Ln ("Sainsbury's Roundabout")<sup>1</sup>.

### Thatcham

- Kenwick Ln junction with Benham Hill Bath Rd (A4).
- Northfield Rd junction with Bath Rd (A4).
- Broadway junction with Chapel St (A4).
- Park Lane junction with Chapel St (A4).
- Harts Hill Rd junctions with London Rd (A4).

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<sup>1</sup> Since this roundabout is now completely controlled by traffic signals we would like to see advanced stop lines on all the approaches to the roundabout and on the roundabout itself.

An example of an ASL on the approach to a signalled roundabout can be seen in Bristol at the St James Barton Roundabout on the Inner Circuit Road. This is described in detail in reference 2.



## Appendix 2: References

<sup>1</sup>*Cycle-friendly Infrastructure: Guidelines for Planning and Design*, Section 16.1. CTC and others, 1996. Available from the CTC.

<sup>2</sup>*Advanced Stop Lines for Cyclists*, DETR Traffic Advisory Leaflet 08/93.

Available on the internet at

[http://www.dft.gov.uk/stellent/groups/dft\\_roads/documents/page/dft\\_roads\\_504724.hcsp](http://www.dft.gov.uk/stellent/groups/dft_roads/documents/page/dft_roads_504724.hcsp)

<sup>3</sup>*Further Development of Advanced Stop Lines*, DETR Traffic Advisory Leaflet 05/96. Available at

[http://www.dft.gov.uk/stellent/groups/dft\\_roads/documents/page/dft\\_roads\\_504717.hcsp](http://www.dft.gov.uk/stellent/groups/dft_roads/documents/page/dft_roads_504717.hcsp)

