DS.303
Stop line markings and signage (including ASLs)

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A	Draft	D.Farnham	29.04.13	D.Waters	08.05.13
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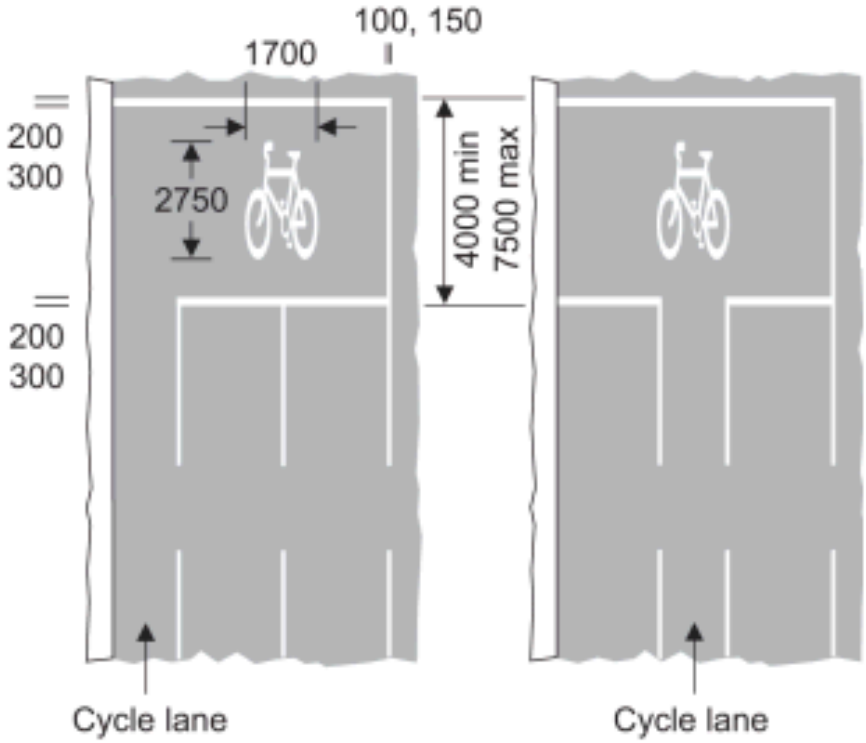


1 Introduction

1.1 Notes

a. This design standard explains requirements for the use and design of stop line road markings (including Advanced Stop Lines for pedal cyclists) and associated up right signs and other road markings. It does not go into detail about the use of these restrictions in combination with other necessary signs and road markings (including traffic signals) that are likely to be required at signalised junctions and standalone controlled crossings.

b. See standard DS.300 for general requirements on the use of traffic signs and road markings, including sign sizes and lighting requirements.

c. See the SSDM webpages at www.southwark.gov.uk/ssdm.

1.2 Discussion

a. Where a stop line exists within a carriageway and its requirements apply then road users must come to a halt before proceeding. In the case of stop lines associated with traffic signals, then they must wait until the correct signal is shown before they may proceed. This is irrespective of whether the way is clear or not.

b. There are three main instances when stop lines may be introduced or required:

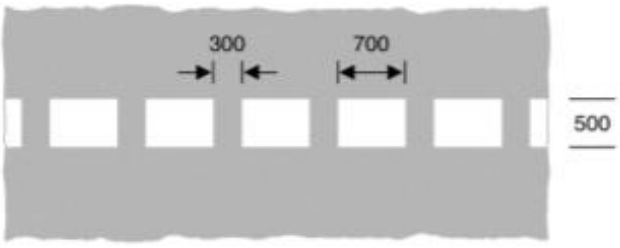
i. <u>At Signalised Junctions:</u>
Where traffic signals are introduced at a road junction then stop lines must always be used with these. The line type used is then as diagram 1001 of the TSRGD (though see below about 'advanced stop lines').

1001
Vehicular traffic must not proceed beyond the line when required to stop by light signals, by a constable in uniform or by a traffic warden

ii. <u>At Stand Alone Controlled Crossings</u>

Where puffin, pelican, toucan or equestrian crossings are introduced (but not zebras) then stop lines must always be used with these as per either of the following:

- For puffin and pelican crossings: The requirements of Schedule 4, Part 1 of the Zebra, Pelican and Puffin Pedestrian Crossing Regulations and General Directions 1997 (see note). In practice that line is identical to that as diagram 1001 of the TSRGD.
- For toucan and equestrian crossings: Diagram 1003.3 of the TSRGD. This is a composite road marking assembly for the entire crossing and includes a diagram 1001 stop line.



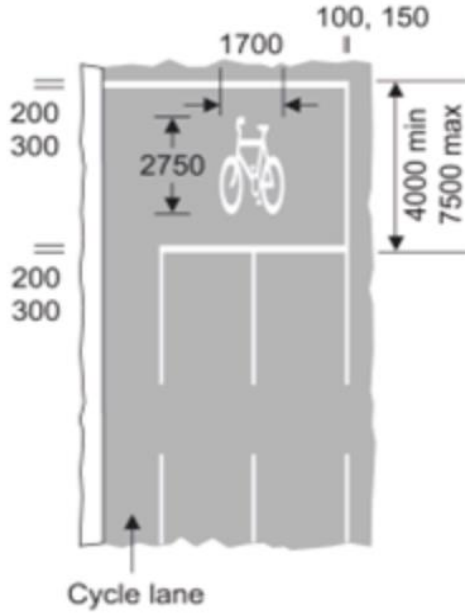
1003.3
Vehicular traffic approaching a roundabout with small central island or approaching a junction marked by signs as shown in diagram 611.1 should give way at or immediately beyond the line to traffic circulating on the carriageway of the roundabout

iii. At priority junctions (non-signalised road junctions)

This is by far the least common instance of use. At 'T' junctions and intersections that are not signalised, there may sometimes be a concern that a give-way line alone is insufficient for road safety purposes. In such instances introduction of a stop line may sometimes be considered (though this will require special authorisation from the Secretary of State for Transport). Where it is permitted then a combination of the line marking to TSRGD diagram 1002.1 along with a red upright 'stop' sign as diagram 601.1 and a diagram 1022 'stop' text legend marking is required. It should be noted that such stop lines may only be introduced when no other signs to control traffic passing through the junction along the main road have been introduced. This is as per Direction 30 of the TSRGD. Consequently, stop lines of this type may not be introduced to roundabouts or mini-roundabouts.

1002.1
Vehicular traffic must not proceed beyond the line when required to stop by the sign shown in diagram 601.1

c. Where stop lines are used at signalised junctions (but not stand alone signal controlled crossings) then they are often now provided as part of an Advanced Stop Line arrangement (or ASL) as diagram 1001.2 or 1001.2A. These create two staggered stop lines. The line further forward and nearest the traffic signals is for pedal cyclists. The line further back is for motorists. Neither road user group may proceed beyond their respective stop line until the signals change. The space between the two lines (which should be between 3-5m in length) provides a reservoir in which pedal cyclists can wait. This can be a useful feature at pedal cyclists can wait. This can be a useful safety feature as it allows them to position themselves in advance of motor vehicles and hence avoid turning conflicts should these vehicles wish to proceed left or right at the junction. Such conflicts often result in accidents. In the past, ASLs were typically provided with a brief 'feeder' cycle lane to help cyclists access the reservoir (bypassing queuing motor vehicles in the process). Normally this was positioned along the kerb line to the carriageway edge. However, in recent years increasing concern has been expressed by road safety and cycling campaigners that such feeder lanes may introduce unnecessary risk for cyclists by encouraging them to take up poor road positioning that will bring about exactly the type of turning conflicts that ASLs are intended to avoid. Recent changes to the TSRGD that introduced diagram 1001.2A (see below) now provide for the omission of this feeder lane for these reasons.



1001.2
Alternatives to the stop line shown in diagram 1001 showing separate stop lines at a junction for pedal cycles proceeding in the cycle lane

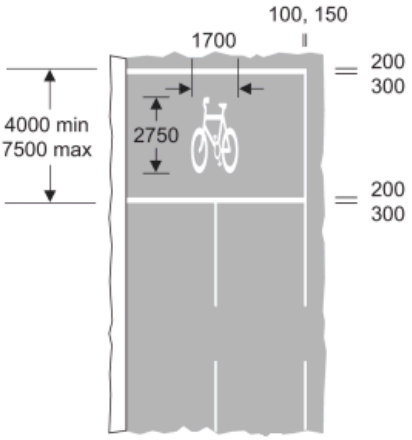


Diagram 1001.2A

2 Use requirements

2.1 At Signalised Junctions

2.1.1 General

a. As per statutory requirements, stop lines must be provided at all signalised junctions. Unless a level 1 departure is agreed these should be ASLs as diagram 1002.1/1002.1A to provide waiting reservoir for pedal cyclists (though see section 2.1.2 about the prospective use of associated ASL feeder lanes). Use of standard stop line designs as diagram 1001 will require agreement to a level 1 departure. It will need to be demonstrated why an ASL configuration could not be accommodated. Normally this will only be permitted for robust road safety or network management reasons). Existing stop lines that are encountered within a project area should be updated to be in accordance with these requirements.

b. However where a segregated cycle lane has been provided at or through the junction then an ASL and reservoirs for cyclists are redundant and may be omitted from the design without the need for a departure.

c. Where they are deployed in these circumstances then stop lines must be used with a variety of other signs and road markings as part of the wider scheme for signalisation of the junction and any associated crossings.

2.1.2 Feeder lanes to ASLs

a. No new feeder lanes leading into ASLs should be provided (see note 1). Use will require agreement to a level 1 departure. It will need to be demonstrated that this would not exacerbate potential turning conflicts between cyclists and other vehicles at the junction. Where approving officers are satisfied that this is likely to be appropriate then they should grant that departure initially In Principle Only. Suitability of the feature should then be raised as a Point Of Enquiry in a Road Safety Audit. Final Confirmation of the departure should be subject to review of the findings of that Road Safety Audit.

NOTE 1: This will effectively necessitate use of diagram 1001.2A since diagram 1001.2 must always include a feeder lane.

b. Where existing feeder lanes leading into ASLs are encountered within a project area then these should be reviewed with a view to removal. In order to ensure that this review takes place (and similarly to prevent removal without consideration of feeder lanes that serve a beneficial purpose) both retention and removal will require agreement to a level 1 departure. Where retention is proposed it will need to be demonstrated that this would not exacerbate potential turning conflicts between cyclists and other vehicles at the junction. Where approving officers are satisfied that this is likely to be appropriate then they should grant that departure initially In Principle Only. Suitability of the feature should then be raised as a Point Of Enquiry in a Road Safety Audit. Granting of Final Confirmation to the departure should be subject to review of the findings of that Road Safety Audit.

2.2 At Stand Alone Controlled Crossings (excluding zebra crossings)

a. As per statutory requirements, stop lines must be provided to all Stand Alone Controlled Crossings other than zebra crossings. The line type requirements

will vary with the crossing type and should be as follows

i. For puffin and pelican crossings
As per the requirements of Schedule 4, Part 1 of the Zebra, Pelican and Puffin Pedestrian Crossing Regulations and General Directions 1997 (see note). In practice that line is identical to that as diagram 1001 of the TSRGD.

ii. For toucan and equestrian crossings
Diagram 1003.3 of the TSRGD. This is a composite road marking assembly for the entire crossing and includes a diagram 1001 stop line.

b. Where they are deployed in association with Stand Alone Controlled Crossings then stop lines must be used with a variety of other signs and road markings as part of the wider scheme for signalisation of the carriageway and crossing.

2.3 In other locations (including to priority junctions)

a. Stop lines should not be used in circumstances other than those described in sections 2.1 and 2.2.. A level 2 departure will be required in all instances where this is proposed. Normally this will be considered only on the basis of safety concerns. It will need to be demonstrated that these could not be avoided or mitigated acceptably through alternative proposals. In the case of stop lines that are not associated with traffic signals then that departure should be granted initially In Principle Only. Final Confirmation to it should be subject to confirmation of a special authorisation from the Secretary of State for Transport to use the necessary signs – as per the statutory requirements of the TSRGD.

3 Design requirements

3.1 Line thickness

a. As per the requirements of standard DS.300, the thickness of the stop line should always be to the minimum permitted as per the relevant statute (e.g. the TSRGD or Pedestrian Crossings Regulations). Normally this will be:

i. 200mm for lines associated with Signalised Junctions and Stand Alone Controlled Crossings signal controlled crossings.

ii. 400mm for diagram 1002.1 lines associated with priority junctions.

3.2 Length of reservoir in ASL configurations

a. Where ASL configurations are used then the reservoir should be sized to the maximum 5m length permitted as diagrams 1001.2 or 1001.2A. Lesser lengths down to the permitted minimum of 3m will require agreement to a level 1 departure. Normally this will be considered on junction capacity grounds only. Where any such reduction is to be considered then safety for cyclists will remain an important concern.