

9 Use of white lines

White lines are used in our streets as a standard way of providing help to vehicle users, by giving out a variety of messages. Road markings are traffic signs and are important in helping users understand the road conditions they are travelling through. All lines on the highway must conform to the Traffic Signs Regulations & General Directions, but this states the standard to be adopted only if the highway authority decides that markings are appropriate for that location.

In some sensitive areas, in both urban and rural locations, the streetscape has suffered from an over use of white lines. In areas of historic importance these can have a detrimental effect on the character of the environment. Through recent studies and pilot schemes, proposals have been put forward to reduce the amount of white lines.

General Advice

- 1 Alteration to or reduction in the amount of white lines can be used to create uncertainty for drivers encouraging them to reduce their speed. This might include removing the centre line along a road altogether. White lines are sometimes used for traffic calming, to demarcate an offset to the edge of the road creating a visual narrowing, or to create a pinch point though this is not their intended use. This uses lines set out in smooth transitions, avoiding sharp deviations.
- 2 A different coloured or textured surface like bound gravel surfacing or block paving can be used instead to demarcate an area instead of using white lines. This approach to design could be preferable in more sensitive areas of the countryside or in small towns and villages. However, coloured surfaces cannot perform all the same functions as white lines, as they are likely to be ineffective at night or in wet weather.
- 3 Conclusions of a TRL study show that there can be clear vehicle speed reductions achieved in removing centre lines in 30 mph areas. However the scheme will need additional measures to reinforce the road appearance changes such as, road narrowing, pinch points and gateway features. A detailed analysis of existing road conditions should be undertaken before any proposals are made.
- 4 For additional information and advice regarding the use of white lines refer to Section 5 Traffic Management, of English Heritage's *Streets for All* regional guidance.

Procedures

- 1 Undertake a detailed study to measure the class and speed of traffic and the location of all road markings.
- 2 Gather accident data over an area which extends several hundred metres beyond the boundary of the site, over as long a time period as possible. Investigate local incidents that have not been recorded.
- 3 Consult with local residents, stakeholders, disability groups and interested parties.
- 4 Consider pedestrian and vehicle safety, environmental and cost benefits / disbenefits of changing markings, as well as any need for warning signs.
- 5 Carry out road safety audits at all stages of the design process.
- 6 Continue monitoring for a significant period after works are complete and analyse data collected, to compare pedestrian movement behaviour; vehicle speed and accident rates before and after implementation.

Relevant Documents and Legislation

- Traffic Signs Regulations and General Directions 2002 (TSRGD)
- Manual for Streets, Chapter 9 Traffic Signs and Markings DfT 2007
- Road Traffic Regulation Act 1984
- Road Traffic Act 1991
- Traffic Signs Manual Chapter 5 Road Markings 2003
- 02/04 Rural Traffic Calming, *DfT Traffic Advisory Leaflet*
- 01/00 Traffic Calming Regulations, *DfT Traffic Advisory Leaflet*¹
- 01/04 Village Speed Limits, *DfT Traffic Advisory Leaflet*
- 11/00 Village Traffic Calming – Reducing Accidents, *DfT Traffic Advisory Leaflet 2000*²
- Suffolk Conservation Manual, *Suffolk County Council*, 2000-5
- All regional *Streets for All* guidance documents produced by English Heritage.
- TRL 641 Psychological Traffic Calming, Prepared for DfT 2005
- Manual for Historic Streets *English Historic Towns Forum*, May 2008
- Traffic Management and Streetscape LTN 1/08 *Department for Transport*, March 2008

¹ Note that this guidance should be used with care as it pre-dates the current 2002 TSRGD.

² Ibid

Supporting Case Study

Latton, Wiltshire

Wiltshire is located in the southwest of England and the County is currently undertaking innovative approaches to the use of white lines on their roads. An example of this can be seen in the small village of Latton which was implemented in March 2004. The 800m scheme led by Wiltshire County Council had a total cost of approximately £40,000 and included collaboration with stakeholders including the Parish Council.

The main aim of the scheme was to reduce traffic speeds in order to improve the perception of safety throughout the village. The main aspects of the scheme included:

- Removal of centre white lines
- Providing stone gateways where speed limits are reduced from 40mph to 30mph
- Creating build outs with planting to develop new parking bays on opposite sides of the carriageway
- Improving the main junction, which included repaving
- Improving pedestrian crossing by using buff coloured carriageway surfacing near the main junction and bus stop
- Providing new bus bay and shelters
- Redefining current lighting.

Resulting vehicle speeds fell by around 8 mph and the study concluded that removal of the centre white line can increase the perceived need for drivers to take greater care and reduce speed. It also demonstrated that the use of other road enhancements (pedestrian enhancements, seating etc) reinforced the message.



01 Before: White lines are visually intrusive and take attention away from the rural character of the town

02 After: A redesign of the junction with a reduction in white lines which included the removal of the ghost hatching

03 Before: The junction lacks the positive character of its surroundings and is designed primarily for traffic

04 After: The reduction in width and use of a buff coloured surface treatment to the carriageway emphasises the change in character and removes the need for a centre line

All Latton photographs supplied by the Transport Research Laboratory (TRL)



01 A very complex layout for cycle lanes that results in a low quality street environment



02 Zebra crossing points using excessive marking so the overall effect reduces the quality and character of the street environment

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Case studies researched and written by the Mouchel Group.

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