



## National Committee on Uniform Traffic Control Devices

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**Attachment No. 8**

**Bicycle No. 3**

**APPROVED BY NCUTCD COUNCIL ON JANUARY 19, 2007**

### TECHNICAL COMMITTEE RECOMMENDATION

**TECHNICAL COMMITTEE:** Bicycle Technical Committee

**DATE OF ACTION:** 07 January 2005 (*revised 23 June 2005, 18 January 2007*)

**TOPIC:** Proposed Shared Lane Marking  
Part 9 of the MUTCD

**ORIGIN OF REQUEST:** NCUTCD Bicycle Technical Committee

### DISCUSSION:

Traffic lanes are often too narrow to be shared side-by-side by bicyclists and passing motorists. Where parking is present, bicyclists wishing to stay out of the way of motorists often ride too close to parked cars and risk being struck by a suddenly opened car door (being "doored"). Where no parking is present, bicyclists wishing to stay out of the way of motorists often ride too close to the roadway edge, where they run the risks of being run off the road, being clipped by overtaking motorists who misjudge passing clearance, or of encountering drainage structures, poor pavement, debris, and other hazards.

Riding further to the left avoids these problems, and is legally permitted where needed for safety. However, this practice can run counter to motorist expectations. A pavement marking that indicates the legal and appropriate bicyclist line of travel, and cues motorists to pass with sufficient clearance, is needed. In recognition of this need, several symbols and variations are being used by numerous local agencies around the country.

To address this growing problem, the City of San Francisco selected two (2) candidate Shared Lane Markings based on a human factors study, and conducted an on-street test of those markings that was completed in February of 2004.

The results showed significant improvements to bicyclists' and motorists' positioning in the roadway, and identified the bike-with-chevron marking as most effective. These results have since provided guidance to the California Department of Transportation (Caltrans) to adopt the Shared Lane Marking in the California Supplement to the MUTCD.

The draft proposal that the Bicycle Technical Committee is transmitting to sponsors is based on the findings of the San Francisco study and the language and figure adopted in the MUTCD California Supplement.

Results from the San Francisco study indicate that the shared lane marking:

- Improves positioning of the bicyclist and motorist
  - Increases the distance between bicyclists and parked cars (by 8 inches in the SF study)
  - Increases the distance between overtaking motorists and bicyclists (by 2 feet in the SF study)
- Improves bicyclist behavior
  - Reduces wrong-way bicycling, a major cause of collisions (by 80% in the SF study)
- Reminds motorists of likely bicyclist presence
  - When surveyed, motorists claimed they did not notice the marking; however, the data indicates that their position on the roadway was adjusted to better accommodate bicyclists.

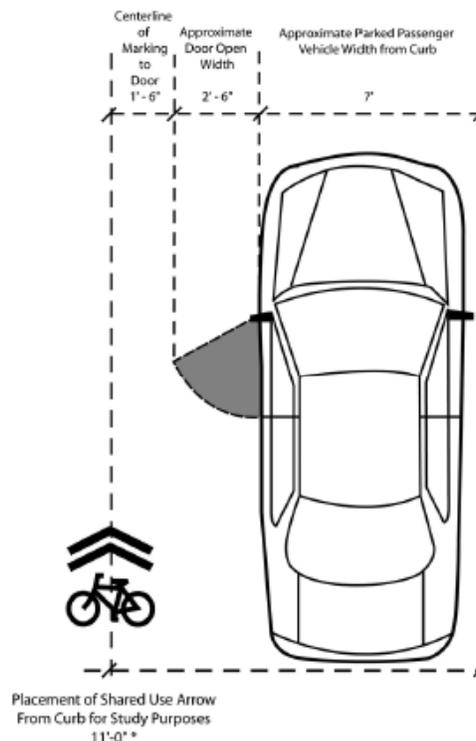


Diagram from San Francisco Shared Lane Marking study

These proposed changes were also reviewed by the NCUTCD Markings Technical Committee at their meeting in January 2005.

**COMMITTEE ACTION:**

The Bicycle Technical Committee recommends that the National Committee forward this proposal to Federal Highway Administration for consideration.

***Approved 35-0-3 by NCUTCD Council 19 January 2007.***

## **Section 9C.XX Shared Lane Marking**

Support:

The Shared Lane Marking is intended to:

1. Help bicyclists position themselves in lanes too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane;
2. Encourage safe passing of bicyclists by motorists;
3. Reduce the chance of a bicyclist's impacting the open door of a parked vehicle in a shared lane with on-street parallel parking;
4. Alert road users of the lateral location bicyclists may occupy; and
5. Reduce the incidence of wrong-way bicycling.

Option:

The Shared Lane Marking shown in Figure 9C-X may be used to assist bicyclists with positioning in a shared lane with on-street parallel parking and to alert road users to the location a bicyclist may occupy within the traveled way.

**Standard:**

**If used in a shared lane with on-street parallel parking, Shared Lane Markings shall be placed so that the centers of the markings are a minimum of 3.3 m (11 ft) from the curb face, or from the edge of pavement where there is no curb.**

**Shared Lane Markings shall not be used on shoulders or in designated bicycle lanes.**

Guidance:

The Shared Lane Marking should not be placed on roadways with a speed limit above 55 km/h (35 mph).

When used, the Shared Lane Marking should be placed immediately after an intersection and spaced at intervals not greater than 75 m (250 ft) thereafter.

Option:

When the shared lane marking is used, the distance from the curb or from the edge of pavement or paved shoulder may be increased beyond 3.3 m (11 ft).

Figure 9C-XX. Shared Lane Marking

