

 Northern Region Traffic Engineering Practice	No. 901.1
<b>BIKES MAY USE FULL LANE Signs          and Shared Lane Markings</b>	April 10, 2012

The 2009 MUTCD introduced two new traffic control devices related to bicyclists using the roadway.

BIKES MAY USE FULL LANE (R4-11) signs are intended for use where travel lanes are too narrow for bicyclists and motor vehicles to operate side by side in the same lane. However, the presence of a sign is not necessary for cyclists to use the full lane. Rather, the sign serves as a reminder of the law in locations where the volume of cyclists, the roadway geometry, and other conditions suggest that motorists may frequently encounter cyclists occupying the center of the travel lane. The sign is covered in Section 9B.06 of both the MUTCD and the Virginia Supplement to the MUTCD.

Shared Lane Markings (also known as “Sharrows”) are intended for use where pavement width or other constraints prevent the designation of a full bike lane. The markings provide cyclists with guidance about appropriate lateral positioning and advise motorists about the presence of cyclists. The marking is presented in Section 9C.07 of the MUTCD.



### GENERAL CONSIDERATIONS

In order for these devices to be effective, they must not be overused, but rather limited to the locations where motor vehicle traffic, bicycle traffic, and roadway conditions combine to create the greatest need. As such, the following considerations apply when evaluating a roadway for the possible application of these devices:

- **Neither device shall be used on roadway segments with bike lanes, since a bike lane eliminates the need for these devices.**
- **Neither device shall be used on roadway segments with paved shoulders 4 feet or more in width.** Although cyclists are permitted to use the travel lane even where shoulders are present, these devices may inappropriately discourage some cyclists from using the shoulder.
- *Both devices should be limited to roadway segments designated by the local jurisdiction’s bicycle plan as part of its bicycle network.*

- *Roadway segments with low traffic volume, less than 3,000 vehicles per day, should not need these devices, because they usually offer a sufficient cycling environment.*
- *Neither device should be used on roadway segments with traffic volume greater than 30,000 vehicles per day or speed limits greater than 35 mph. Cyclists are generally permitted to use high-volume, high-speed roadways, but these devices may encourage novice cyclists to travel on a roadway above their skill level.*
- *Both devices should be limited to roadway segments where travel lanes are delineated with longitudinal pavement markings or other methods. (Neither device should be used on undivided unmarked roadways.)*

### **BIKES MAY USE FULL LANE SIGN**

**BIKES MAY USE FULL LANE signs shall be used only where bicyclists are permitted by the Code of Virginia<sup>1</sup> to use the full lane.**

The Code of Virginia permits bicyclists to use the full lane in a “substandard width lane,” which is defined as “a lane too narrow for a bicycle . . . and another vehicle to pass safely side by side within the lane.”



*Where this condition is the reason for installing the sign, its use should be limited to roadway segments where the combined width of the right-most travel lane and any paved shoulder is 10.5’ or less, excluding the gutter pan, if any.*

*In order to avoid overuse of the signs that would reduce their impact and effectiveness, BIKES MAY USE FULL LANE signs should be limited to roadway segments used frequently by cyclists, or where cyclists report being intimidated by nearby motor vehicle traffic.*

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<sup>1</sup> Code of Virginia, [§ 46.2-905](#).

## **SHARED LANE MARKING**

Following are examples of locations that may benefit from Shared Lane Markings:

- Shared Lane Markings can provide guidance where there is a gap in or a terminus of an otherwise continuous bike lane, where constraints such as roadway width preclude the addition or extension of a bike lane.
- Where on-street parking is permitted and frequently occupied, Shared Lane Markings can help cyclists choose an appropriate lane position, rather than riding too close to the doors of parked cars.
- Where a roadway segment is wide enough for a bike lane in only one direction, the bike lane can be installed in the uphill direction and Shared Lane Markings can be used in the downhill direction, where cyclists are more likely to travel near the speed of motorists and may need to ride farther from the curb to have enough reaction time.



**However, Shared Lane Markings shall not be used in any of the following situations:**

- **As a substitute for a bike lane where conditions permit a bike lane to be marked**
- **To provide wayfinding guidance to cyclists**
- **To designate a roadway as a bicycle route**
- **On a shared-use path or other facility where motor vehicle traffic is prohibited**
- **In an exclusive turn lane, where they could communicate that cyclists are permitted to use the lane to travel straight through an intersection instead of using the appropriate through travel lane**

**The layout of Shared Lane Markings shall not vary from the figure depicted above.**

*When roadway segments with Shared Lane Markings are repaved, the segments should be evaluated to determine whether the pavement could be widened enough to mark a formal bike lane. Roadways with Shared Lane Markings should be a high priority for shoulder widening. If it is infeasible to widen the pavement, the segments should be evaluated to ensure that traffic and roadway geometric conditions continue to support the use of Shared Lane Markings.*

## **OTHER CONSIDERATIONS**

*A BIKES MAY USE FULL LANE sign and a Shared Lane Marking should not normally be used on the same roadway segment, unless extreme conditions, such as a documented volume of heavy cyclist traffic and severe roadway geometry, are present to a degree that using both devices together would provide a significant additional benefit to the traveling public.*