

**INTEROFFICE MEMORANDUM**  
**Transportation Division**

Clark County, Washington  
Department of Public Works

**FROM:** Ejaz Khan, P.E.; Traffic Engineer  
**VIA:** Steve Schulte, P.E; County Traffic Engineer  
**DATE:** February 12, 2014  
**SUBJECT:** Bike lane width

Per Clark County standard the width of bike lane on arterial facilities is six feet and on five feet on collector facilities. In situations where it is not possible to accommodate bike lane and it is important to establish connection between bike facilities, a shared facility in the form of wide curb lane, may be acceptable subject to certain restriction.

The minimum width of a shared facility with automobile shall be 14 feet. Under constrained condition the minimum width of a bike lane, for a curbed section of the roadway, shall be four feet and for uncurbed section with no hazard\* present along pavement edge can be up to three and half feet.

If a bicycle is made to share a wide curb lane (minimum lane width 14') with the automobile or if the bike lanes are narrower than five feet then appropriate mitigation measures shall be instituted to offset the impact of lack of standard bike lanes. The mitigation measure shall include but not limited to, ensuring that storm water manholes are level with pavement surface and bike friendly grates are used. Where possible storm water and drainage inlets shall be combined and the bike lane stripe shall be six inches wide.

\*Hazard in this case as defined as

- a) Vertical drop-off of greater than 4" adjacent to pavement edge.
- b) Shoulder slope steeper than 6:1
- c) Fixed objects immediately adjacent to pavement edge.

CC: Matt Griswold, P.E.; -Traffic Engineering Manager

**INTEROFFICE MEMORANDUM**  
**Transportation Division**

Clark County, Washington  
Department of Public Works

**FROM:** Ejaz Khan, P.E.; Traffic Engineer  
**VIA:** Steve Schulte, P.E; County Traffic Engineer  
**DATE:** February 25, 2013  
**SUBJECT:** **Share the Road Sign assembly (W16-1 + W16-1P)**

A "SHARE THE ROAD" sign assembly (W11-1+W16-1P) is intended to alert the motorists that bicyclists may be encountered. However, the sign is not a substitute for appropriate geometric design measure and should not be used to address reported traffic operational issues. It may be used under certain limited conditions (*4.3.2 Guide for development of bicycle facilities by AASHTO-2012 edition*).

A shared lane where bicycles share the facility with automobile traffic on a collector corridor and above is not an adopted standard for Clark County. In situations described below, where connection must be established between bike facilities, a shared facility with an automobile may be acceptable subject to certain restriction. To qualify as a shared lane, the minimum outside lane width should be 14 feet or more. Signs should be considered for installation at locations that meet at least one or more of the following criteria:

1. after a bike lane ends and bicyclists and motorists enter a shared lane situation in a moderate to heavily used bicycle corridor
2. on stretches of road that are used to connect two sections of a bike facility separated by a reasonable distance
3. roadway sections with a significant history of bicycle crashes
4. where there is a documented conflict or courtesy problem between bikes and motor vehicles
5. where motorists and bicyclists have reduced sight distance

**"Share the Road" sign assembly should not be used on:**

- a) designated, marked or striped bicycling facilities. Roadways where paved shoulders or bicycle lanes are present will not be considered unless special safety conditions exist.
- b) where the posted speed limit exceeds 35 MPH
- c) where the outside (curb) lane volume exceeds **3,500 vehicles per day**
- d) where the outside lane width is less than 14 feet

An exception may be made to b, c and d above, and a share the road sign assembly can be installed on lane widths up 12 feet and posted speeds up to 40 MPH, where the bicyclist needs to share the lane with a right turn only lane at an intersection for a short distance.

**Substitution to “Share the Road” sign assembly:**

- i. For narrow width outside (curb) lanes, subject to certain restrictions, “BIKES MAY USE FULL LANE” (R4-11) signs should be used in lieu of “Share the Road” sign assembly. R4-11 could be substituted for “Share the Road” sign assembly where the curb lane width is less than 12 feet. When used, the sign shall not be used in combination with W11-1 warning sign.

R4-11 signs may be used where a lane is too narrow for a bicycle and a vehicle to travel safely side by side within the same lane. The TRB Highway Capacity Manual assumes that no lane sharing occurs on lanes 12 feet or narrower.

The sign should not be used at locations where

- a) the corridor’s posted speed exceeds 40 MPH or
- b) the curb lane volume exceeds 3,500 vehicles per day or
- c) at distances more than 300 feet (measured back of the stop bar location) approaching a public road intersection.

- ii. “BIKES ON ROAD” (W11-101) signs should be used instead of “Share the Road” sign assembly on corridors (non-intersection locations) where:
  - a. the corridor’s posted speed exceeds 35 MPH and
  - b. the curb lane width is less than 14 feet, or
  - c. the curb lane volume exceeds 3,500 vehicles per day, or
  - d. where “BIKES MAY USE FULL LANE” sign is not applicable.
- iii. “BIKES ON ROAD” signs may also be substituted for “Share the Road” and/or “Bike May Use Full Lane” signs based on engineering judgment or study.

CC: Matt Griswold, P.E.; Traffic Engineering Manager

RCW 46.61.770

Riding on roadways and bicycle paths

(1) Every person operating a bicycle upon a roadway at a rate of speed less than the normal flow of traffic at the particular time and place shall ride as near to the right side of the right through lane as is safe except as may be appropriate while preparing to make or while making turning movements, or while overtaking and passing another bicycle or vehicle proceeding in the same direction. A person operating a bicycle upon a roadway or highway other than a limited-access highway, which roadway or highway carries traffic in one direction only and has two or more marked traffic lanes, may ride as near to the left side of the left through lane as is safe. A person operating a bicycle upon a roadway may use the shoulder of the roadway or any specially designated bicycle lane if such exists.

(2) Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

**INTEROFFICE MEMORANDUM**  
**Transportation Division**

Clark County, Washington  
Department of Public Works

**FROM:** Ejaz Khan, P.E.; Traffic Engineer  
**VIA:** Steve Schulte, P.E; County Traffic Engineer  
**DATE:** December 31, 2013  
**SUBJECT:** **Guidelines for installing Green Color Bike Lane**

The Federal Highway Administration (FHWA) has issued an Interim Approval (IA-14 dated April 15, 2011) for the use of green colored pavement in marked bicycle lanes and in extensions of bicycle lanes through intersections and other traffic conflict areas.

The green colored pavement for bike lane should only be used where the path of bicyclists crosses automobile path, where there is heavy conflict between automobile and bicycles and where other road users should yield to bicyclists. Colored pavement by definition is a traffic control device that must demonstrate a need before they are used. An interim approval, as described in FHWA document IA-14 shall be obtained by the County prior to use of green bike lane.

Green color in a bicycle lane should only be used when either of the following conditions exist:\*

1. A traffic conflict area exists at one of the following locations: or
  - a. The bike lane crosses a heavily used right turn lane.
  - b. Traffic in a channelized right turn lane crosses a bike lane.
2. A need for this treatment is demonstrated by either
  - I. A history of 3 or more motor vehicle-bicycle crashes exists at or adjacent to the traffic conflict area over the most recent three-year period, or
  - II. Documented conflicts (failure of the motor vehicle to yield to the bicyclist) between cyclists and motor vehicles at an average rate of two per peak hour. The documentation for conflicts shall include observations from a minimum of two separate data collection periods, conducted on different days in a one month period, and include at least one weekday and one weekend count period during peak bicycle travel times. Each period should be at least 2 hours in duration. Peak times vary by surrounding land use, but are typically:

Weekday, 11:00 AM to 1:00 PM

Weekday, 5:00 PM to 7:00 PM

Saturday, 8:00 AM to 2:00 PM

Colored pavements shall not replace or be used in lieu of required markings for bike lanes as defined in the MUTCD and/or the Clark County Standard plans but shall only supplement such markings.

Materials permitted to color the bike lane green shall fall within the color parameters defined by FHWA in their interim approval (IA-14). During the first three years of the installation, the County shall review annually the crash reports in the conflict area to assess if the colored pavement is improving the safety of the bike lane.

Guidelines similar to FDOT per "Roadway Design Bulletin 12-01" dated January 12, 2012)

CC: Matt Griswold, P.E.; -Traffic Engineering Manager