



Florida Department of Transportation

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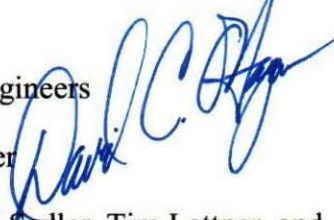
ANANTH PRASAD, P.E.
SECRETARY

Mail Station 32

ROADWAY DESIGN BULLETIN 12-01

DATE: January 4, 2012

TO: District Design Engineers, District Traffic Operations Engineers

FROM: David C. O'Hagan, P. E., State Roadway Design Engineer 

COPIES: Brian Blanchard, Duane Brautigam, Mark Wilson, David Sadler, Tim Lattner, and Chris Richter (FHWA)

SUBJECT: Green Colored Bicycle Lanes

BACKGROUND:

The Federal Highway Administration (FHWA) has issued an Interim Approval for the use of green colored pavement in marked bicycle lanes and in extensions of bicycle lanes through intersections and other traffic conflict areas. In accordance with the conditions of the interim approval, FDOT has requested and received permission from FHWA for locations on the State Highway System. The Interim Approval may be found at the following website:

http://mutcd.fhwa.dot.gov/res-interim_approvals.htm

The effectiveness of green colored pavement may be maximized if the treatment is used only where the path of bicyclists crosses the path of other road users and where road users should yield to bicyclists. Because colored pavements are addressed in the 2009 MUTCD, they are by definition a traffic control device whose need must be demonstrated before they are used. The following requirements apply to projects on the State Highway System.

REQUIREMENTS:

Green color in a bicycle lane will be permitted on the State Highway System when both of the following conditions exist:

1. A traffic conflict area (“keyhole”) exists at one of the following locations:
 - a. The bike lane crosses a right turn lane,
 - b. Traffic in a channelized right turn lane crosses a bike lane, or
 - c. The bike lane is adjacent to a dedicated bus bay.

2. A need for this treatment is demonstrated by either of the following:
 - a. 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
 - b. A government agency has observed and 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 region and 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 [Plans Preparation Manual, Chapter 8](#) and [MUTCD](#), but shall only supplement such markings. When used in conjunction with white skip lines, such as when extending a bike lane across a right turn lane or access to a bus bay, the transverse colored marking shall match the 2’-4’ white skip line pattern of the bike lane extension. The green colored pavement shall begin as a solid pattern 50 feet in advance of the skip striping, match the 2’ 4’ skip through the conflict area, and then resume the solid color for 50’ after the conflict area, unless such an extent is interrupted by a stop bar, an intersection curb radius or bike lane marking. Details of each installation and associated pavement markings shall be shown in the plans. Figures 1 - 5 illustrate how the green portion of the bike lane may be marked. See [FDOT’s Design Standards, Indexes 17346 and 17347](#) for details on pavement markings.

Figure 1 Bike Lane with Separate Right Turn Lane

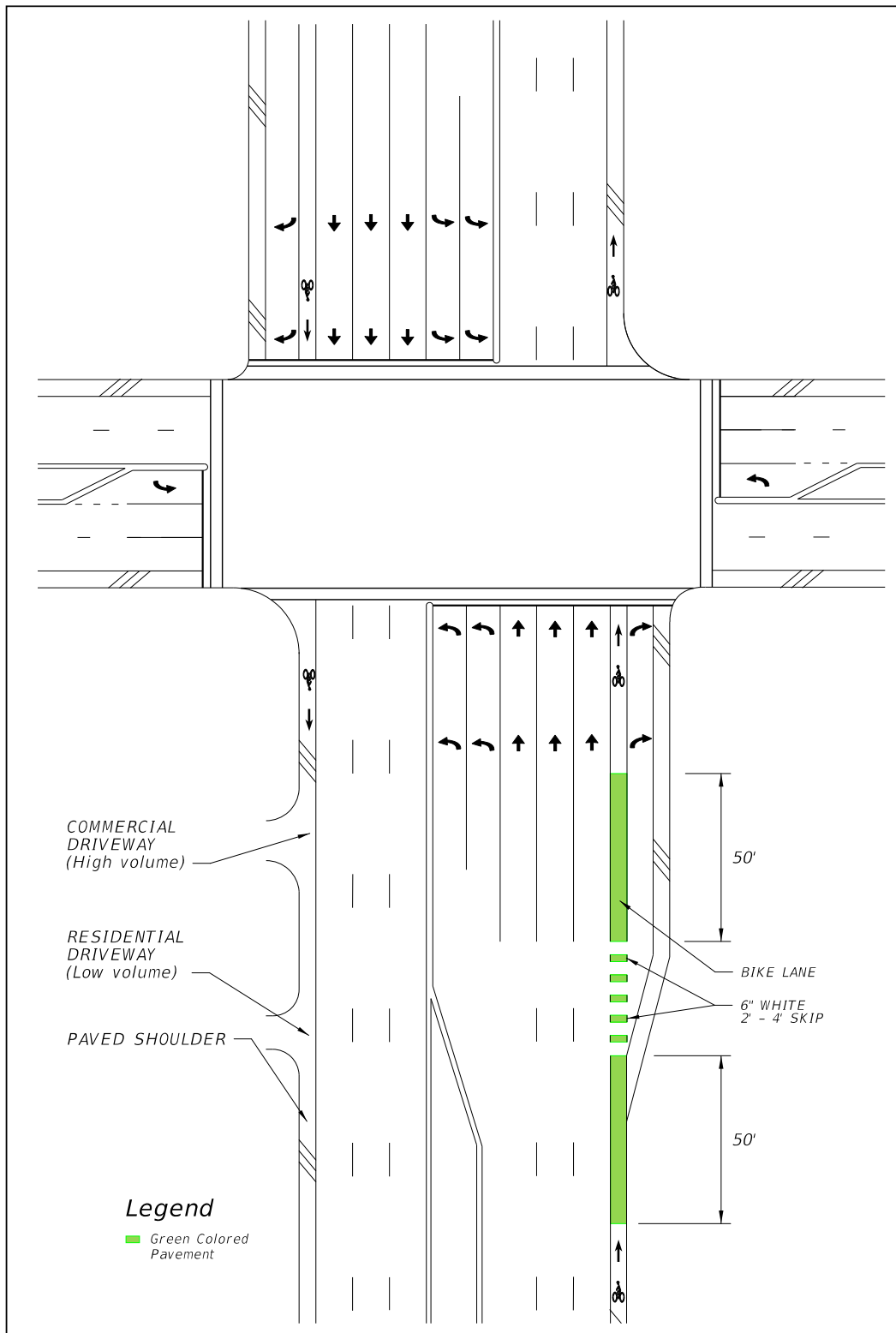


Figure 2 Bike Lane with Right Turn Drop Lane

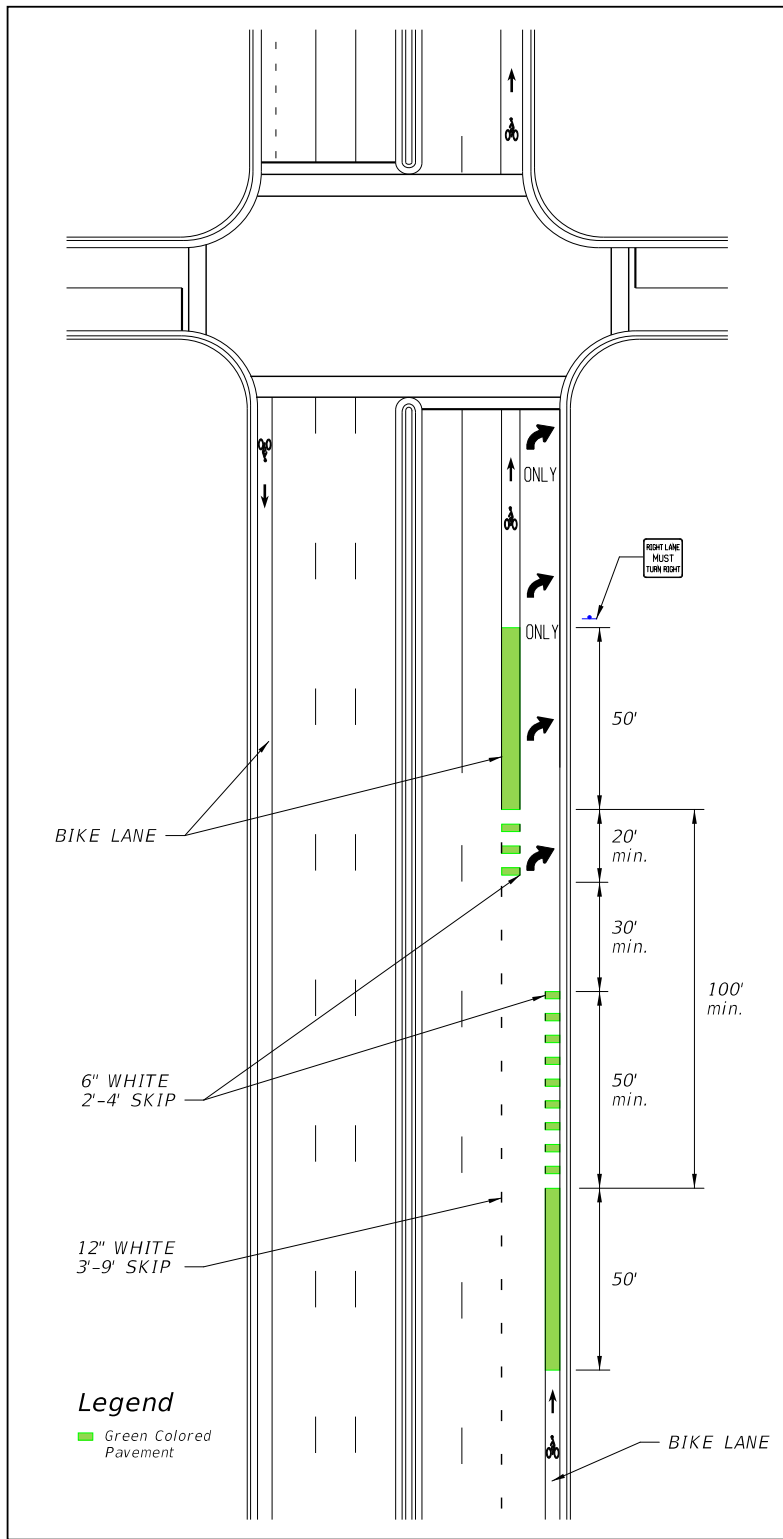


Figure 3 Bike Lane with Channelized Right Turn Lane

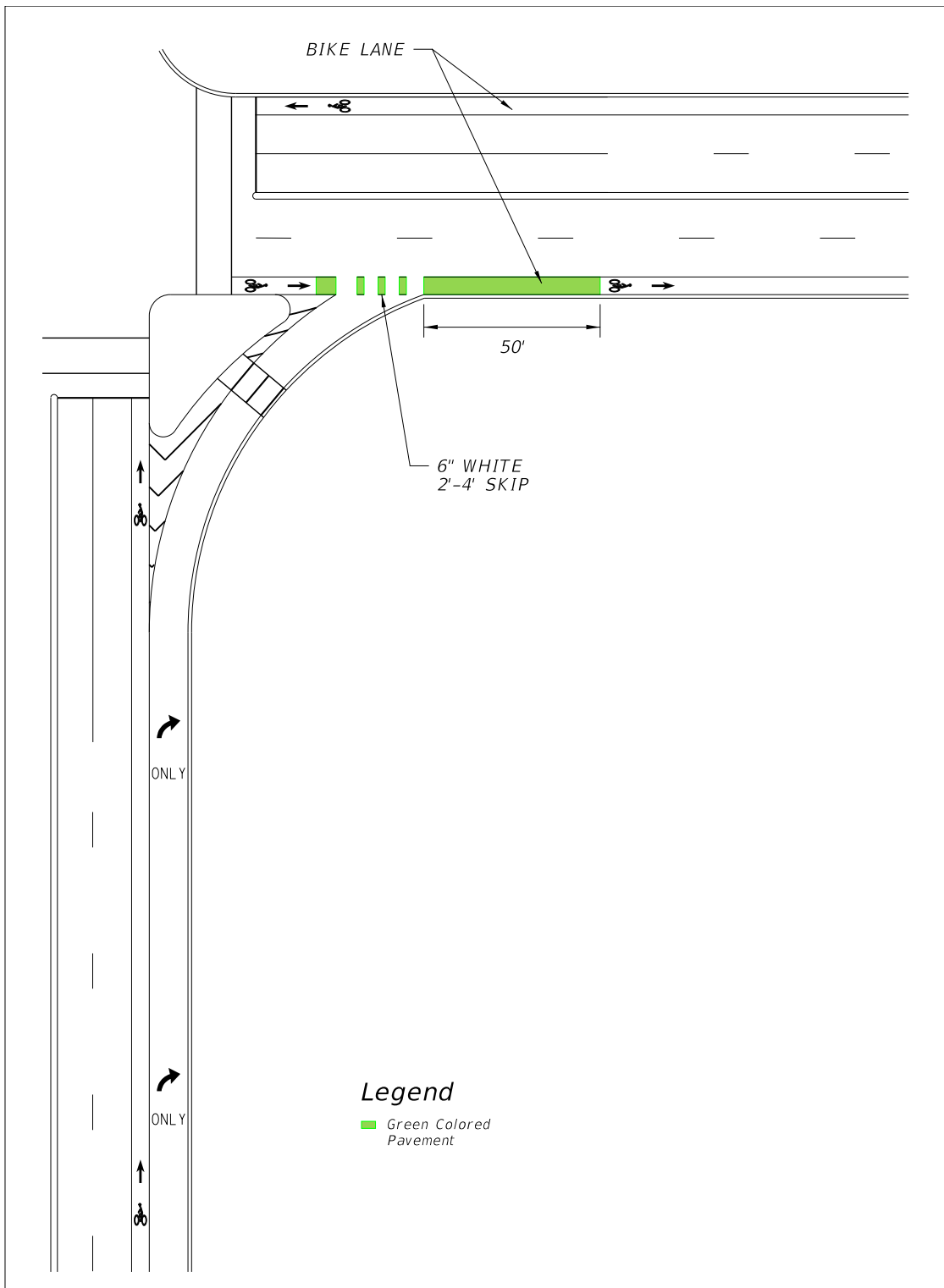


Figure 4 Bike Lane with Free Flow Channelized Right Turn Lane

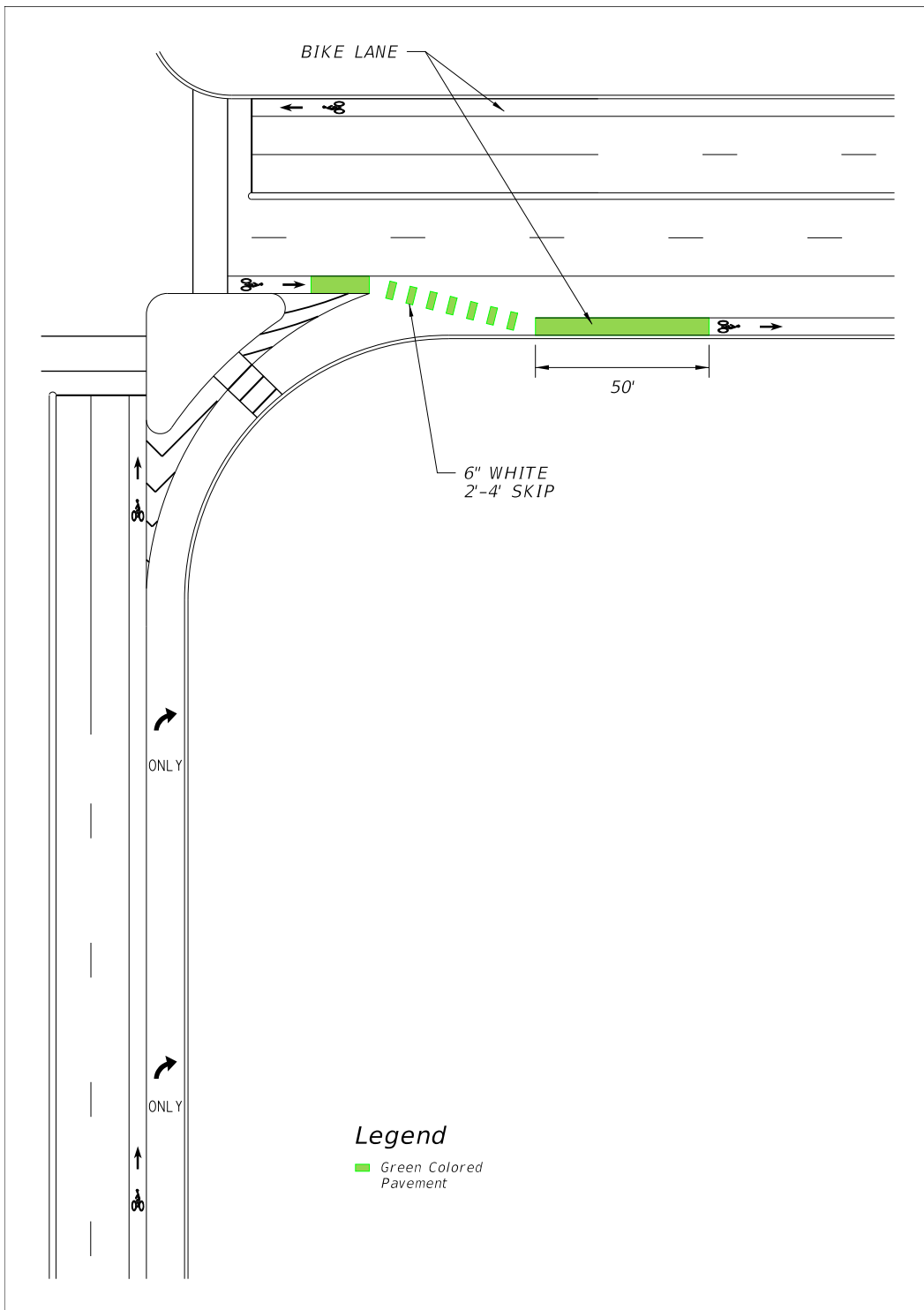
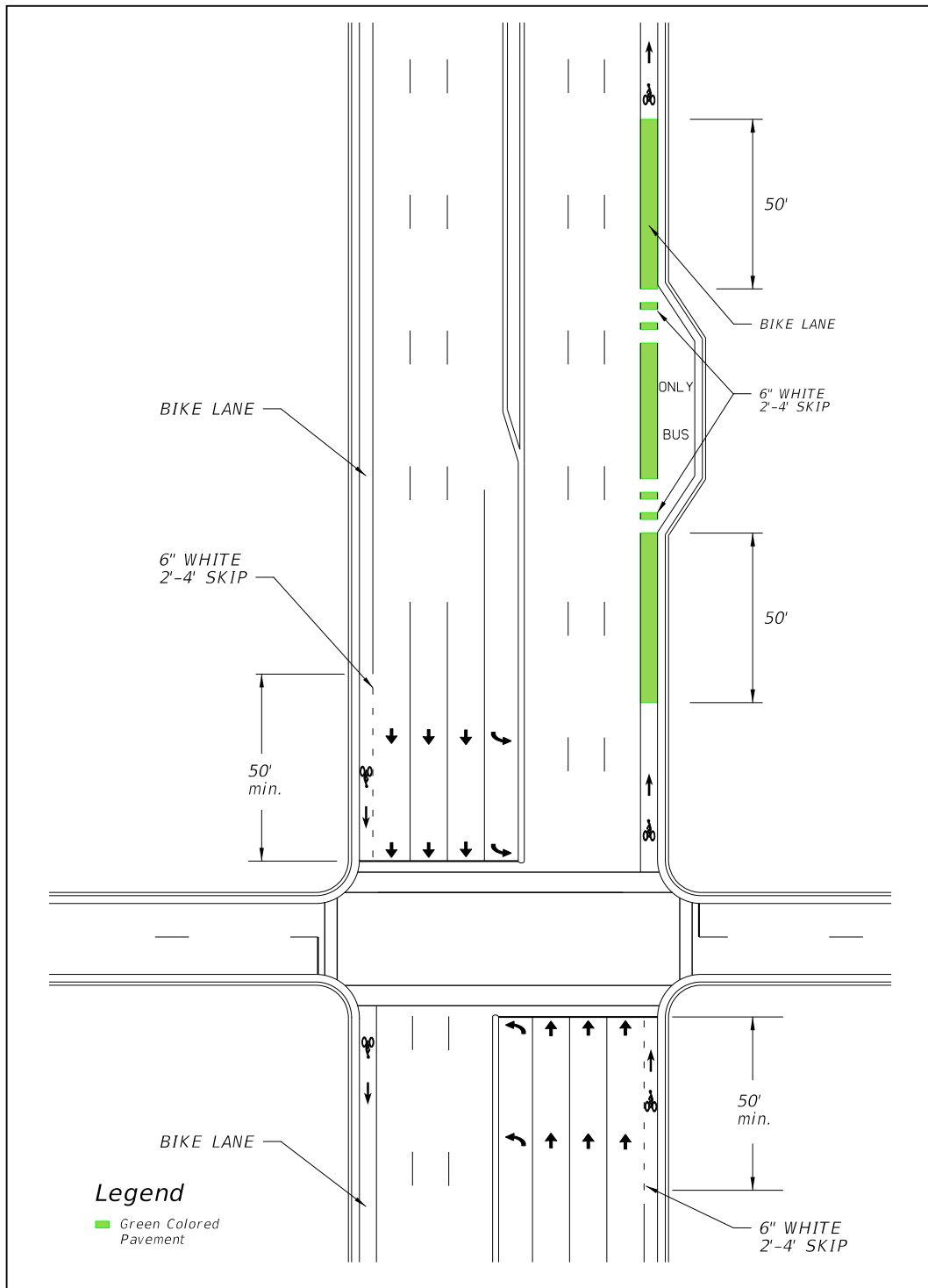


Figure 5 Bike Lane with Bus Bay



Materials permitted to color the bike lane green shall be non-reflective, meet FDOT Specification 523, Patterned Pavement, and fall within the color parameters defined by FHWA in their interim approval. During the first three years of the installation, the District shall review annually the crash reports in the conflict area to assess if the colored pavement is improving the safety of the bike lane. These assessments shall be reported to the State Roadway Design Engineer.

IMPLEMENTATION:

Approval for site specific installations of green colored bicycle lanes must be signed by the District Design Engineer, and a copy provided to the State Roadway Design Engineer.

The addition of green colored pavement to bicycle lanes does not require a local agency maintenance agreement. FDOT may fund the assessment of need, but shall be responsible for the design, construction and maintenance of the green colored pavement if its need has been demonstrated in accordance with the requirements above.

Use Pay Item 523-1-3 for Patterned Pavement, Vehicular Areas – Bike Lane, Square Yard.

CONTACTS:

If you have any questions, please contact:

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