

Green Bike Lanes - When, How, Who?



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Patterned Pavement and Green Bike Lanes

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Key Topics

- ◆ FHWA Interim Approval
- ◆ 2009 MUTCD Guidance
- ◆ When Should They Be Used
- ◆ How Should the "Green" Portion Be Designed
- ◆ Material Requirements
- ◆ Approval Process

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Bicycle Lanes (Section 8.4.1)

- ◆ A min. of 4' wide , measured from lip of gutter or edge of pavement
- ◆ A min. of 5' wide when a guardrail or other barrier exists and the roadway pavement is continuous to barrier
- ◆ A min. of 6.5' wide on new "high speed urban and suburban" arterials with curb and gutter
- ◆ Follow Index 17347

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Green Color Bicycle Lanes (PPM, Section 8.4.2)

- ◆ FDOT has received Interim Approval from FHWA for locations on the SHS only
- ◆ Considered a traffic control device whose need must be demonstrated and installations evaluated
- ◆ Purpose is to highlight the conflict area of the bike lane – point at which driver's and cyclists are likely to cross paths

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Green Colored Bike Lanes

- ◆ Highlight the conflict area with a skipped pattern
- ◆ "Safe" area is solid green for 50' before and after conflict area



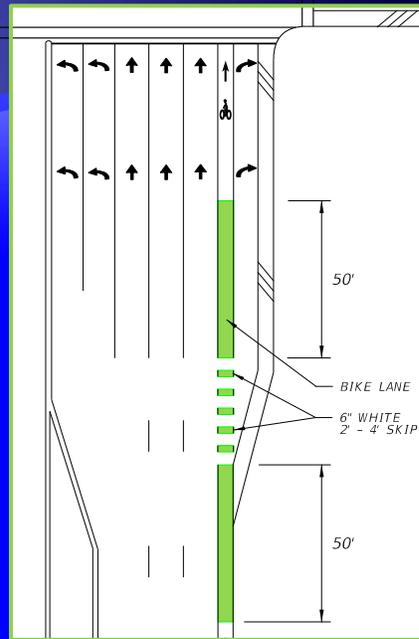
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Green Color Permitted When:

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



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Green Color Permitted When:

- ◆ Need for treatment is demonstrated by:
 - ◆ 3 or more motor vehicle-bicycle crashes at the traffic conflict area over the most recent three-year period, or
 - ◆ Government agency has observed and documented conflicts between cyclists and motor vehicles at an average rate of 2/peak hour
- ◆ Approved by District Design Engineer
- ◆ Performance reviewed on an annual basis
- ◆ No local agency maintenance agreement required

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Observation of Conflicts

- ◆ Minimum of two separate data collection periods
- ◆ Different days in a one month period
- ◆ At least one weekday and one weekend count
- ◆ During peak bicycle travel times
- ◆ At least 2 hours in duration
- ◆ Peak times 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

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Evolution of Green Bike Lanes



Allen Street, New York



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Bicycle Lanes



San Francisco, CA
Photo: sfstreetsblog.org - Bryan Goebel

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Bicycle Lanes

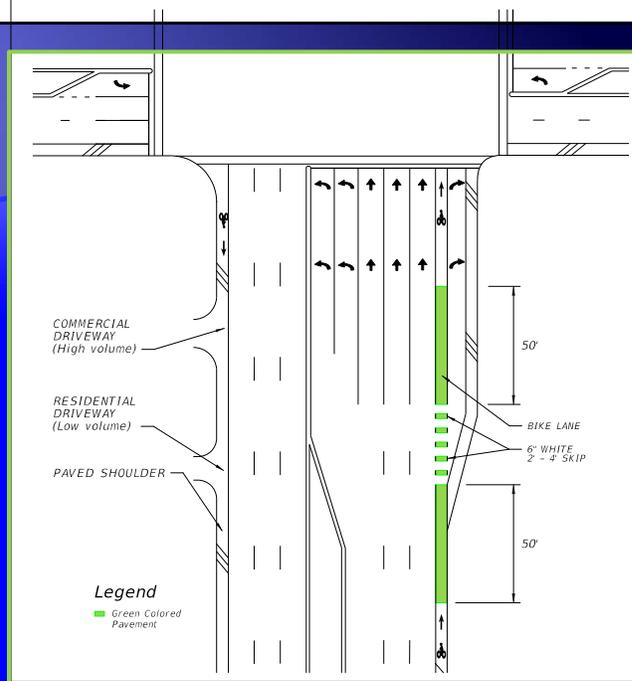


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Green Bicycle Lanes – Right Turn Lane

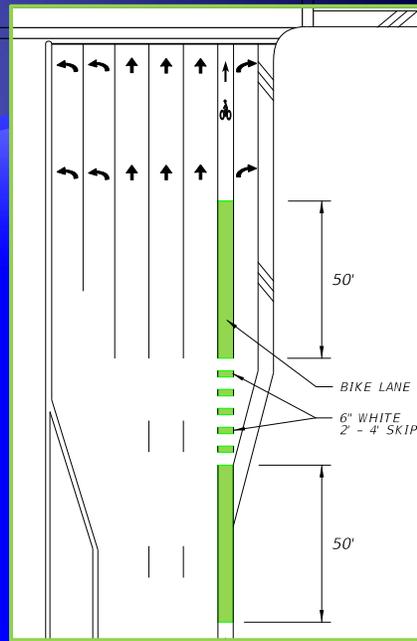


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Green Bicycle Lanes at Right Turn Lane – 2' – 4' Skip Pattern

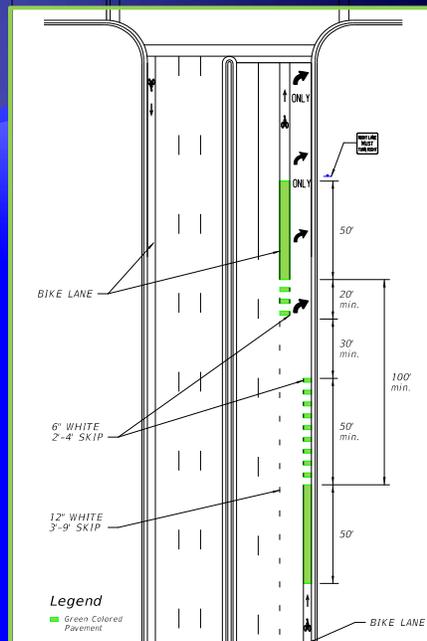


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Green Bicycle Lanes – Right Turn Drop Lane



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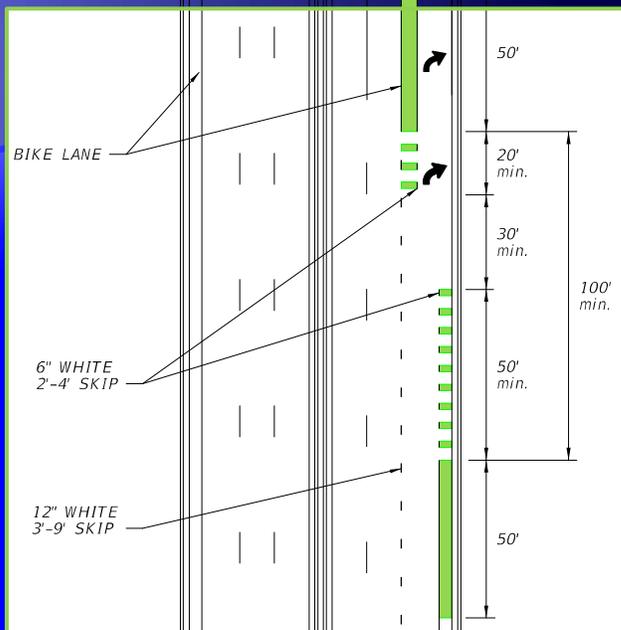
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Green Bicycle Lanes – Right Turn Drop Lane

2'-4' and 3'-9' skip patterns?

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Summary

- ◆ Shall supplement, not be in lieu of, bike lane markings
- ◆ Shall match either the solid or 2'-4' white skip line pattern (not the 3'-9')
 - ◆ Begin as a solid pattern 50' in advance of conflict area
 - ◆ Match the 2'-4' pattern through conflict area
 - ◆ Resume solid pattern for 50', unless interrupted by stop bar, intersection curb radius, or bike lane marking
- ◆ Illustrated in Figures 8.4.1 – 8.4.5 of PPM

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Summary

- ◆ Must be non-reflective
- ◆ Fall within the color parameters defined by FHWA (day and night)
- ◆ Meet FDOT Specification 523, Patterned Pavement for material requirements
 - <ftp://ftp.dot.state.fl.us/LTS/CO/Specifications/WorkBook/Jan2012/SS523000.pdf>



Questions?

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