

Orlando, FL

November 7-8, 2024



2024 TRANSPORTATION SYMPOSIUM

BIKE FACILITIES AND HOW THEY ARE USED



Stephanie Phillips, FDOT D5 Office of Safety
Kelly Morphy / Ed Barsotti, Florida Bicycle Association

Overview

This session aims to:

- **Bridge the gap** between design intent and actual use of bike facilities
- **Examine common decisions** by users that weren't anticipated in the design phase
- Explore how to **address these decisions proactively**

Session objectives:

- Understand common **discrepancies between design intent** and **real-world usage** of bike facilities.
- Identify common **decisions by vulnerable users** including bicyclists who weren't anticipated in the design.
- Explore **strategies to bridge the gap** between design and use in solving challenges for transportation by bicycle.

Stephanie Phillips

- All things people walking & biking in District Five
- AASHTO President's Transportation Award for Mobility, 2022
- Safety Educator of the Year 2024, Children's Safety Village of Central Florida





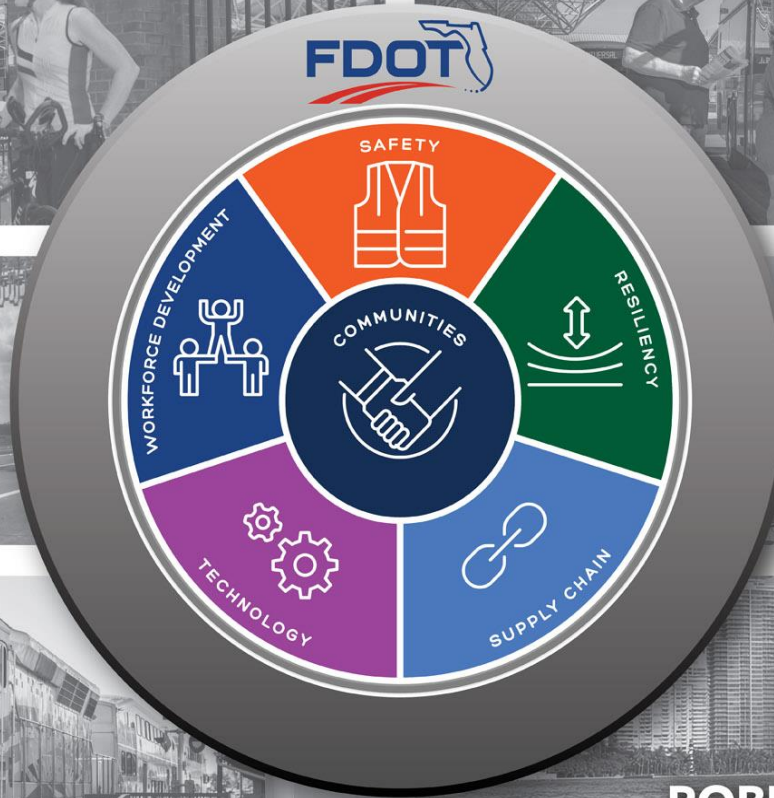
SAFETY



COMMUNITIES



WORKFORCE DEVELOPMENT



RESILIENCY



TECHNOLOGY



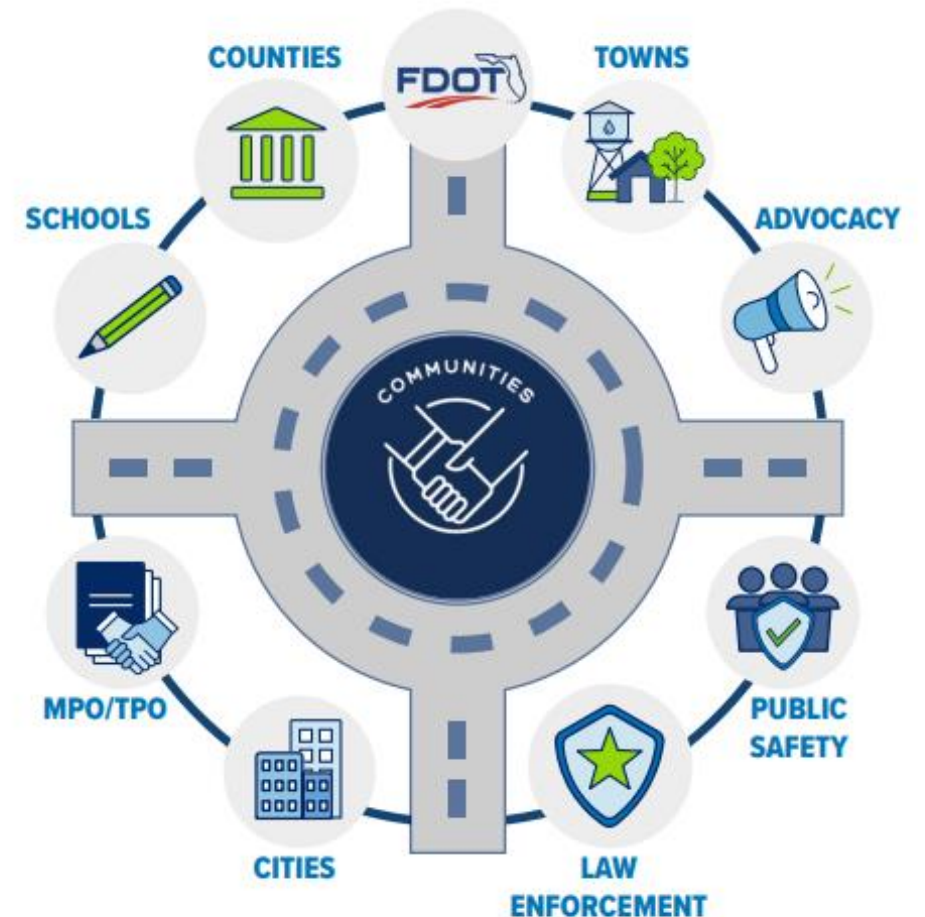
ROBUST SUPPLY CHAIN

Safety Strategic Plan

- State and Local Communities
- Transportation, Public Safety, Schools working towards same goals
- Focus on Targeted Infrastructure and thinking Beyond Infrastructure to change behaviors
- Best Practices and Breakthrough Ideas

CENTRAL FLORIDA SAFETY STRATEGIC PLAN

Achieving **ZERO** serious injuries and fatalities
TOGETHER



Kelly Morphy

- Executive Director since 2022
- Former Executive Director of the Walkable and Livable Communities Institute
- 2021 Citizen Transportation Advocate of the Year by Women in Transportation Seminar of Central Florida





Florida Bicycle Association



Mission: Make Florida **better for people** who **want to bicycle** and for people who **need to bicycle**. 501c3, membership-based non-profit organization. We do this work to improve public health, strengthen local economies, advance equity, and protect the environment.

Why does it matter?



Real Users: Who Are They?



Real Users: Who Are They?





Spoiler Alert:

They're Just People

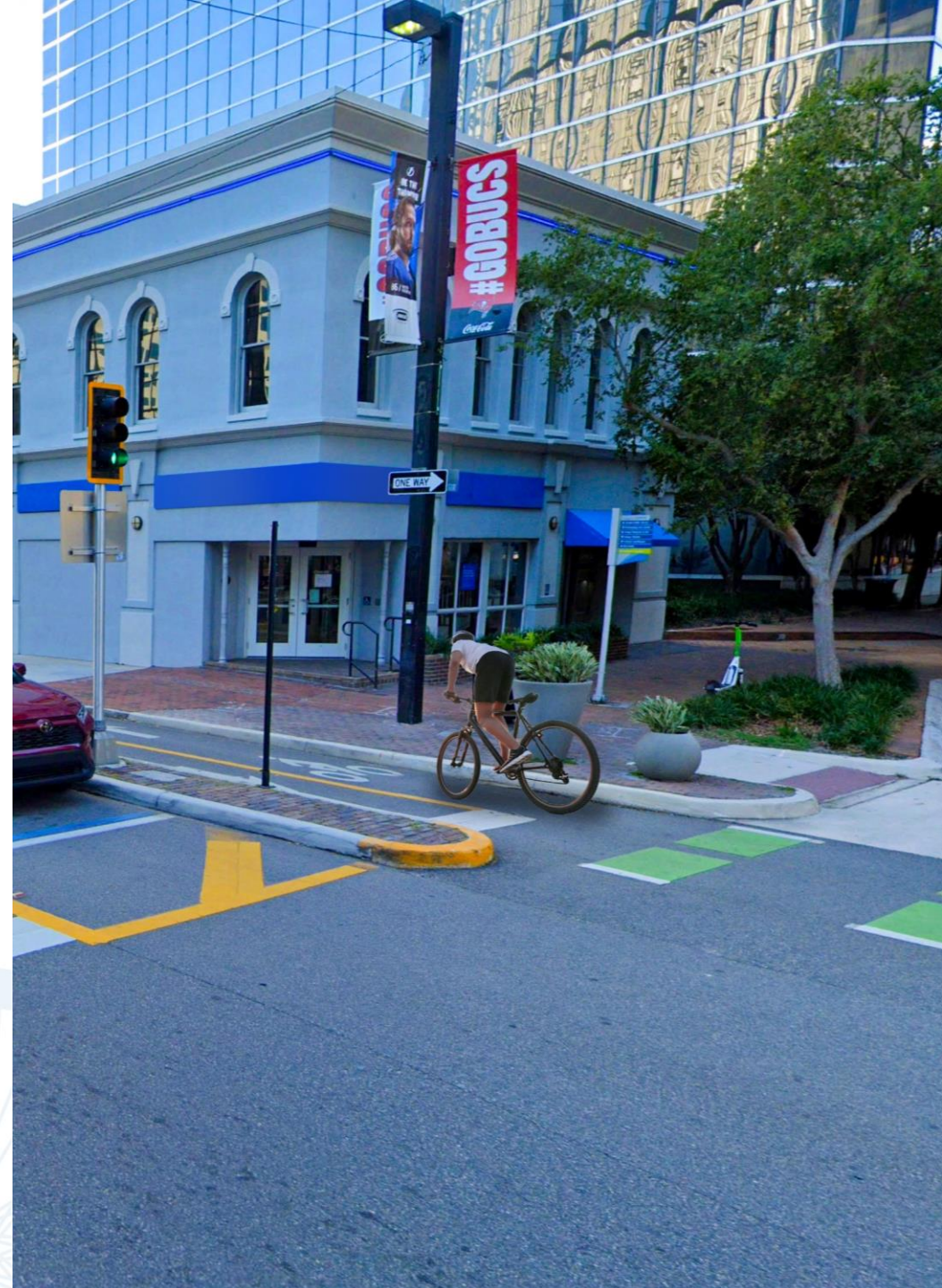
Why are bicyclists doing that??

- Unexpected actions
- Why?
- Engineering solutions



Actions to discuss:

- Sidewalk, not bike lanes
- Traffic lane, not shoulder
- On-road, not sidepath
- Midblock, not at signal
- Away from edge/curb
- Contraflow biking

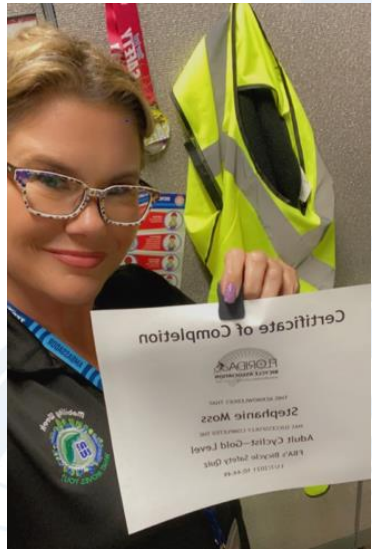


Before the infrastructure...

- Following laws
- FBA's [FLBikeSafetyQuiz.com](https://www.flbikesafetyquiz.com)
- Education, enforcement uses



(Not an MUTCD sign)



INFORMED BICYCLING IN FLORIDA: A POCKET GUIDE

This guide is your quick reference for legal bicycling in Florida.
Keep a copy in your pocket or bike bag for easy access.

Fall 2023



Ed Barsotti

- With Florida Bicycle Association since 2020 and Ride Illinois since 2001
- Bike Infrastructure Assistance and BikeSafetyQuiz programs
- Florida Bicycle liaison on FDOT design policies



1) Sidewalks, not bike lanes



Why? Comfort, fear, and sidewalk availability

Photo credit: Google Maps

Bike lanes, history

- FDOT a pioneer
- Previous “best practice”, all speeds
- Many built



Photo credit: Google Maps

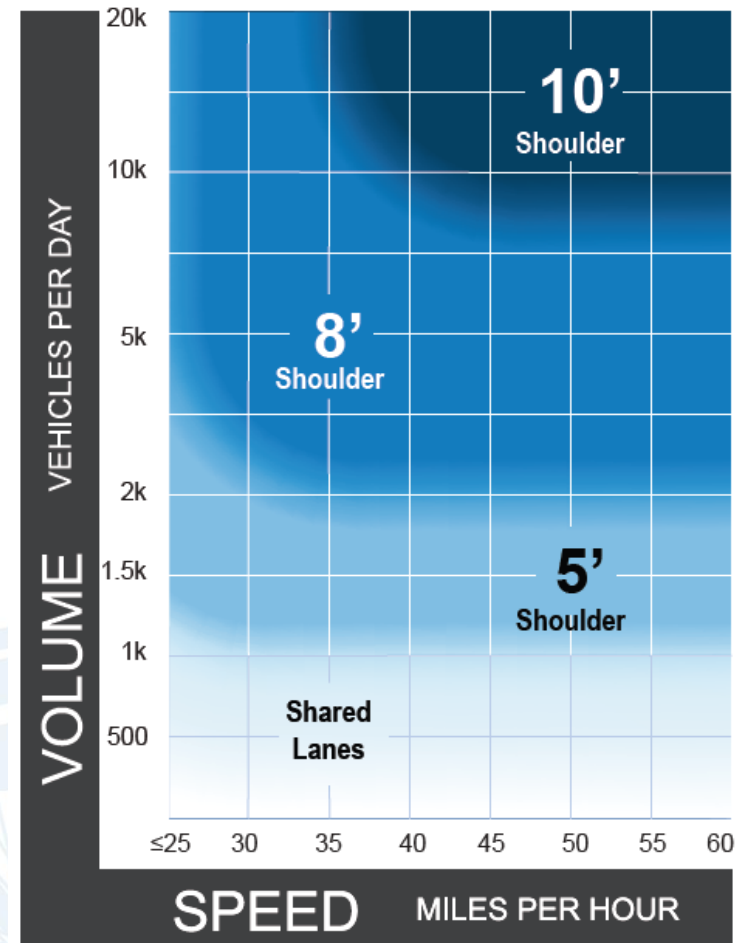
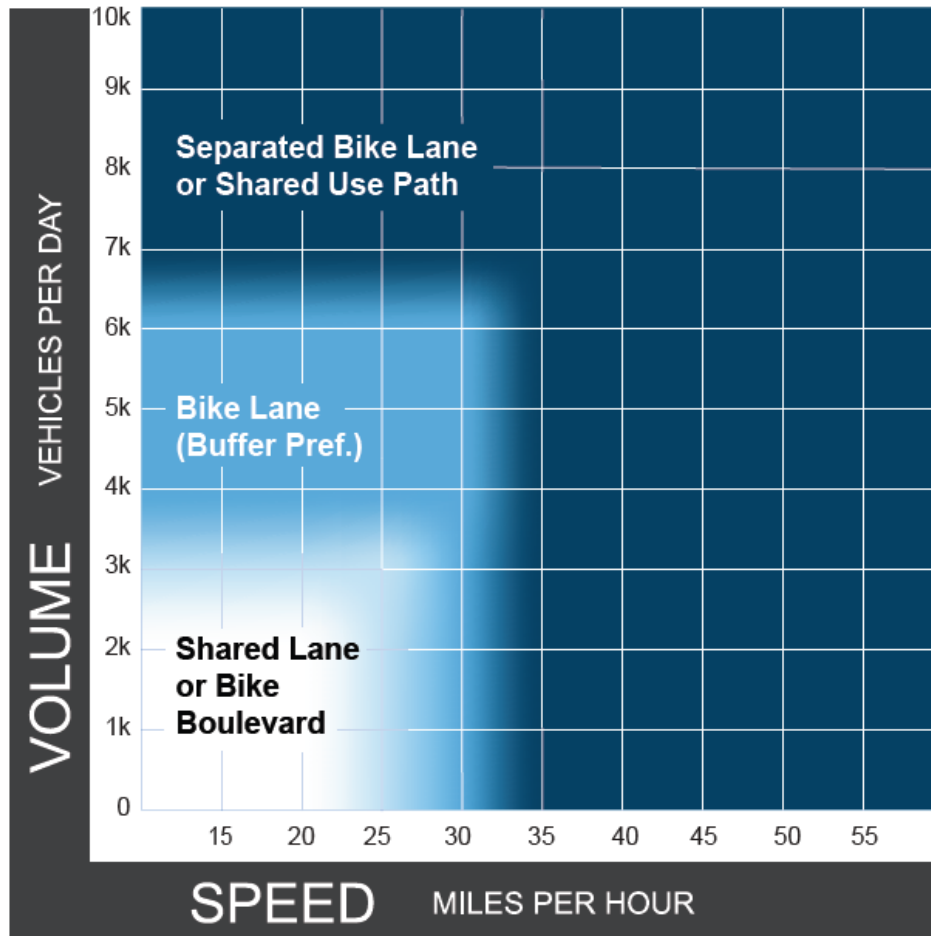
Recent change

- 2019 FHWA → FDM
- Off-road higher speed
- Buffered Bike Lanes lower



Recent change

- FHWA ideals; FDM fallbacks



2) Traffic lane, not shoulder

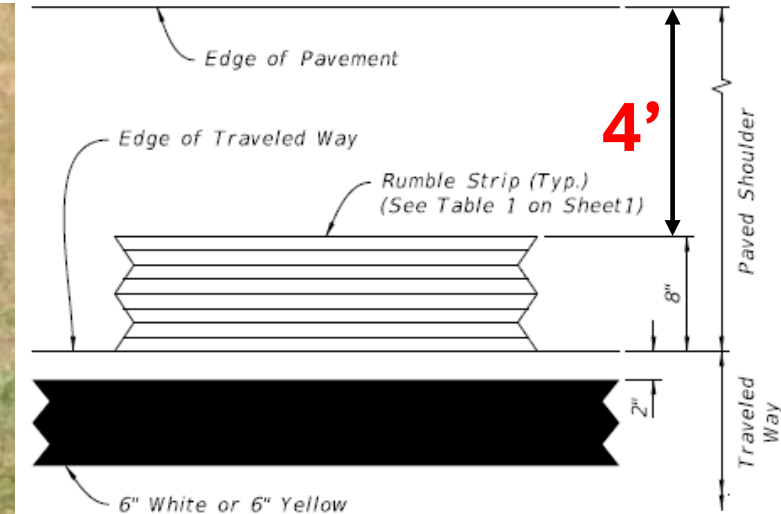
Why??

- Debris/maintenance
- Rideable space too narrow



Not enough space

- FDM, FHWA shoulder widths
- Rumble strips/AVTs
- Vegetation



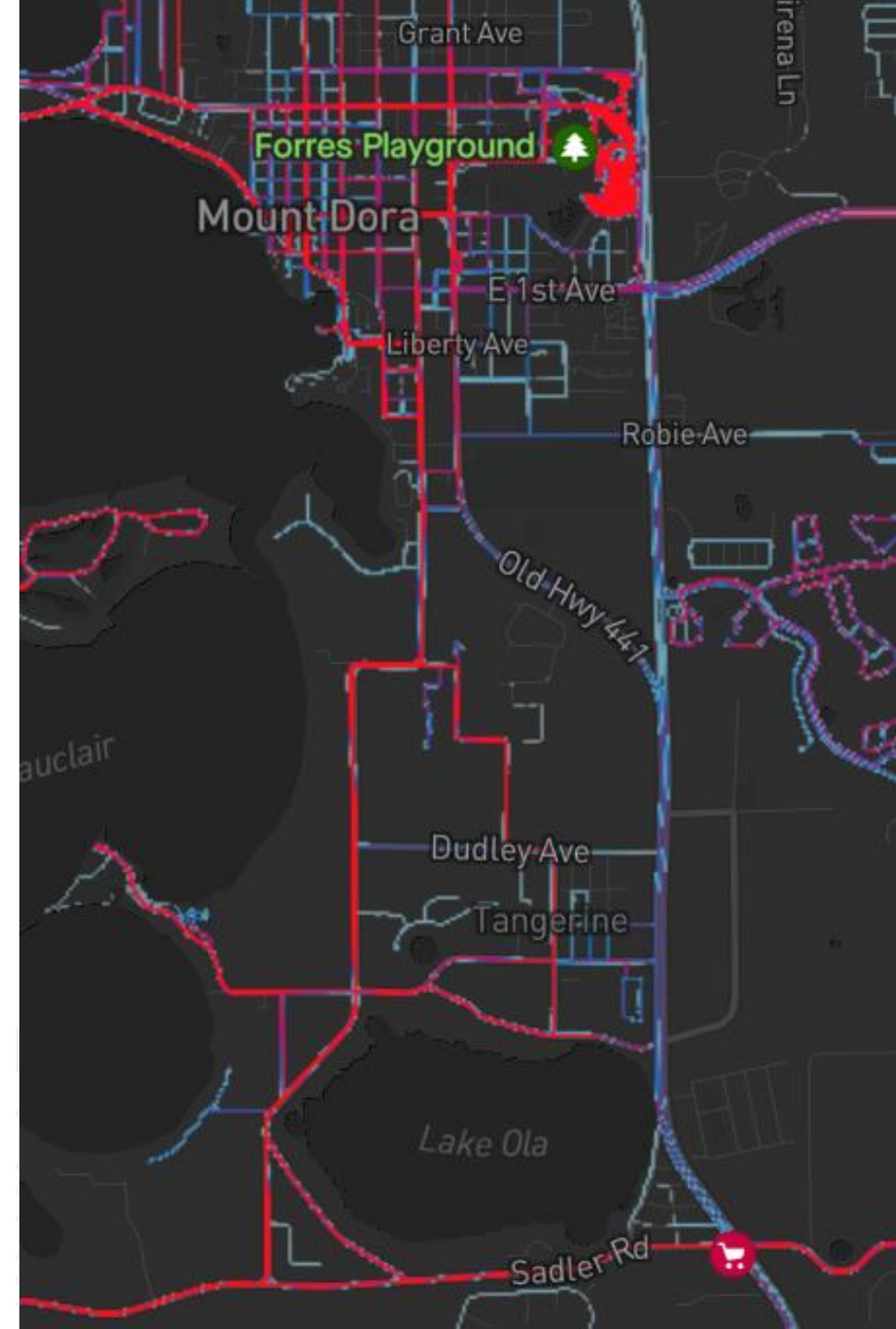
Outside Paved Shoulder Width
Greater Than or Equal to 5'-0"

Sweeping, vegetation

If AVTs in shoulder →

- Sweep, wider, and/or edgeline
- Esp: C2T & up, demand, no sidewalks

Strava QR



3) On-road — not sidepath

Why?

- Sidepath risks



Photo credit: Dave Simmons

Sidepath user conflicts

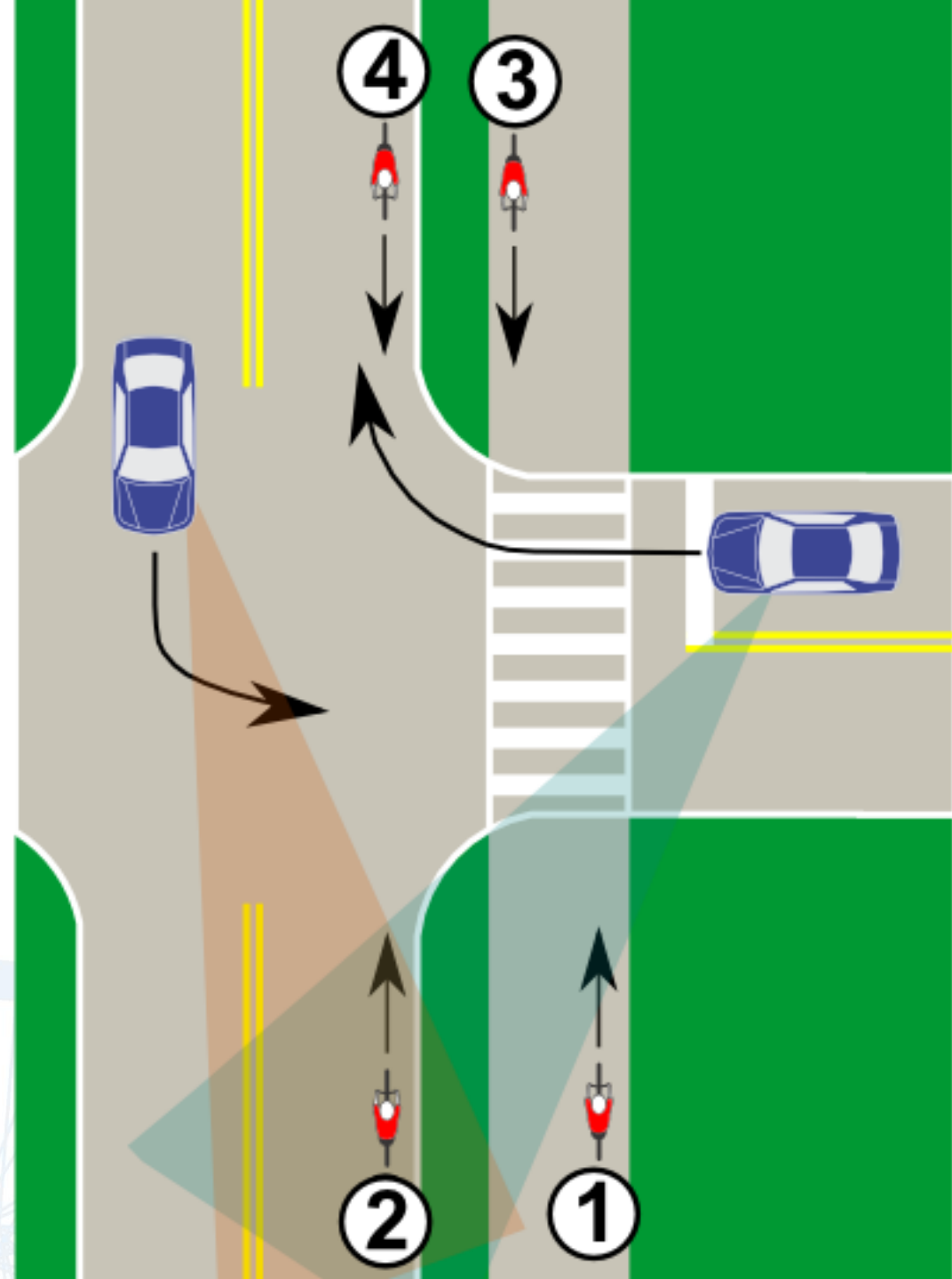
- Pedestrians, others



Photo credit: pedbikeimages.org – Dan Burden

Sidepath visibility

- Best seen: on-road with flow
- Worst: off-road contraflow



Sidepath stoplines

- Poor compliance, turning right, large turn radii



Other intersection behaviors

- Turning but not looking, yielding
- Sidepath stop signs
- Faster speeds, more risk



Engineering help?

- Minor: turn radii. Major: corner islands.
- Choosing sides



4) Crossing midblock, not at signal

Why?

- Quicker, often safer



Photo credit: Dave Simmons

Intersection issues

- Multiple conflicts
- Intersection LOS vs. crossings



Photo credit: Google Maps

Better crossings

- Turning radii
- Right-corner islands
- Leading Pedestrian Intervals



Photo credit: Google Maps

Mid-block crossings

- Fewer conflicts
- Crossing treatment improve

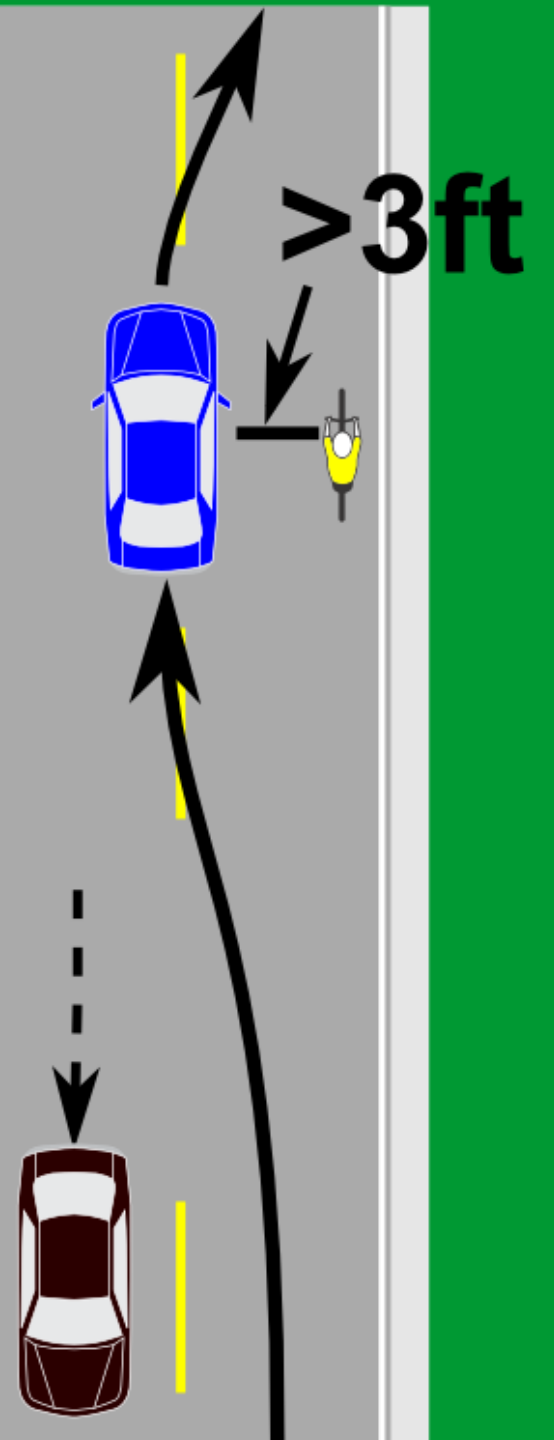


5) Away from edge/curb

Why?

- Discourage “squeeze-by”
- 14’, 12’, 10’ lane widths

3



6) Contraflow biking

Why?

- Hit from behind; intersections
- Faster = riskier
- Educate, enforce



Data – Identifying Behaviors



Education – Targeting Behaviors



BICYCLISTS
The driver doesn't always look!

Watch for drivers turning out of driveways or side streets

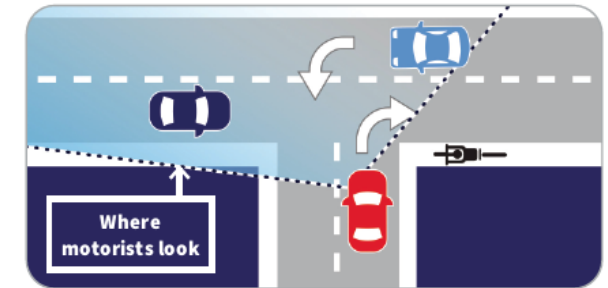
Did you know?

More than **60% of bicycle crashes** on US 192 from I-95 to Babcock Street are the result of motorists failing to look for bicyclists riding from the right on the sidewalk.

www.AlertTodayFlorida.com

Funded by the Florida Department of Transportation in partnership with Space Coast Transportation Planning Organization

Motorists often only look where they expect to see cars.



Florida law requires motorists yield to all traffic on sidewalks next to a roadway. Florida law also allows bicyclists riding on a sidewalk all the rights and duties applicable to a pedestrian.

Remember these tips when you drive:

- 1** Always stop at the stop sign before turning and scan the sidewalk for bicyclists before making a right turn.
- 2** Be alert! Bicyclists and pedestrians are not easily seen at night.
- 3** Bicycles are legal vehicles; move over when passing.
- 4** Slow down! Speed is a major cause of fatal crashes.

Education – Designers and Users



Education – Safety Starts with Us!

LOOK RIGHT. SAVE LIVES.
Watch for bicyclists on the sidewalk.

Motorists usually look left before turning but bicyclists often approach from the right.

FDOT ZER0

Motorists often **ONLY LOOK** where they expect **TO SEE CARS.**

FDOT ZER0



MOVE RIGHT TO TURN RIGHT AND PREVENT RIGHT HOOK CRASHES

FDOT ZER0

MOVE RIGHT TO TURN RIGHT

WHICH IS THE CORRECT MANEUVER?

A: THIS IS THE INCORRECT MANEUVER. **B: THIS IS THE CORRECT MANEUVER.**

A common hazard on our roads is known as the **right hook crash**—when a vehicle turns right and collides with another vehicle or cyclist traveling straight through a bike lane or making the same right turn. These incidents can happen quickly, and we can take steps to prevent them.

- 1. Move Right to Turn Right:** When making a right turn, you must approach and turn as close as practicable to the right-hand roadway edge—including bike lanes that are not separated by a physical barrier. This ensures you stay in your lane and minimizes the risk of colliding with other drivers and cyclists.
- 2. Be Mindful of Bicycle Lanes:** Bike lanes with dotted lines at intersections indicate that turning vehicles are permitted to cross into the bike lane to safely make a right turn. If you're turning right from the through lane, be aware of drivers and cyclists in the bike lane.
- 3. Approach Intersections with Care:** Slow down as you approach intersections to assess traffic and make safer decisions.
- 4. Check Your Blind Spots:** Be aware of your surroundings before turning right or changing lanes. Look for drivers, cyclists, and pedestrians in adjacent lanes and sidewalks, and double-check your mirrors.
- 5. Use Turn Signals:** Clearly communicate your intentions by using your turn signal well in advance of a maneuver.
- 6. Educate Others:** Share these tips with friends and family. The more we know, the safer we are on our roads!

1 Florida Statute 316.10
2 Manual on Uniform Traffic Control Devices Section 9E.02

AlertTodayFlorida.com

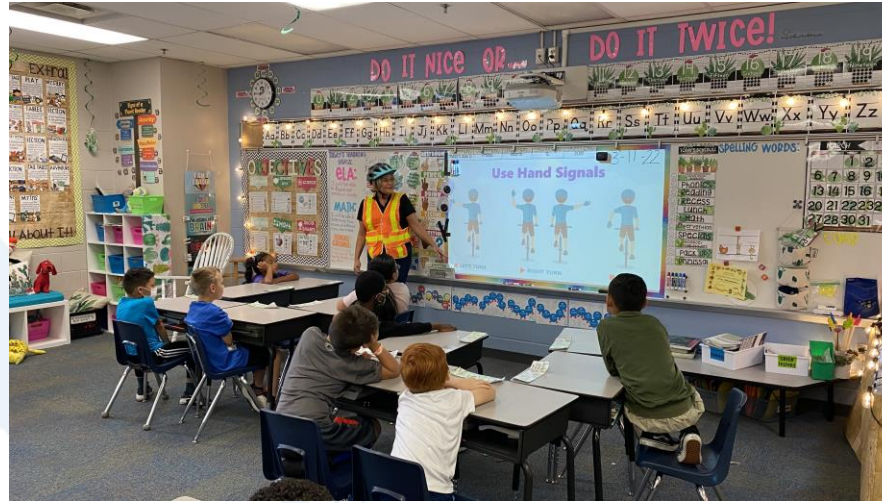
FDOT ZER0

LOOK RIGHT. SAVE LIVES.
Watch for bicyclists on the sidewalk.

FDOT ZER0 TPO www.AlertTodayFlorida.com



Education – Safety Starts Early!



FDOT Safety Message





Thank you!

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