

# Bicycle Facility Planning and Design Update

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# Topics

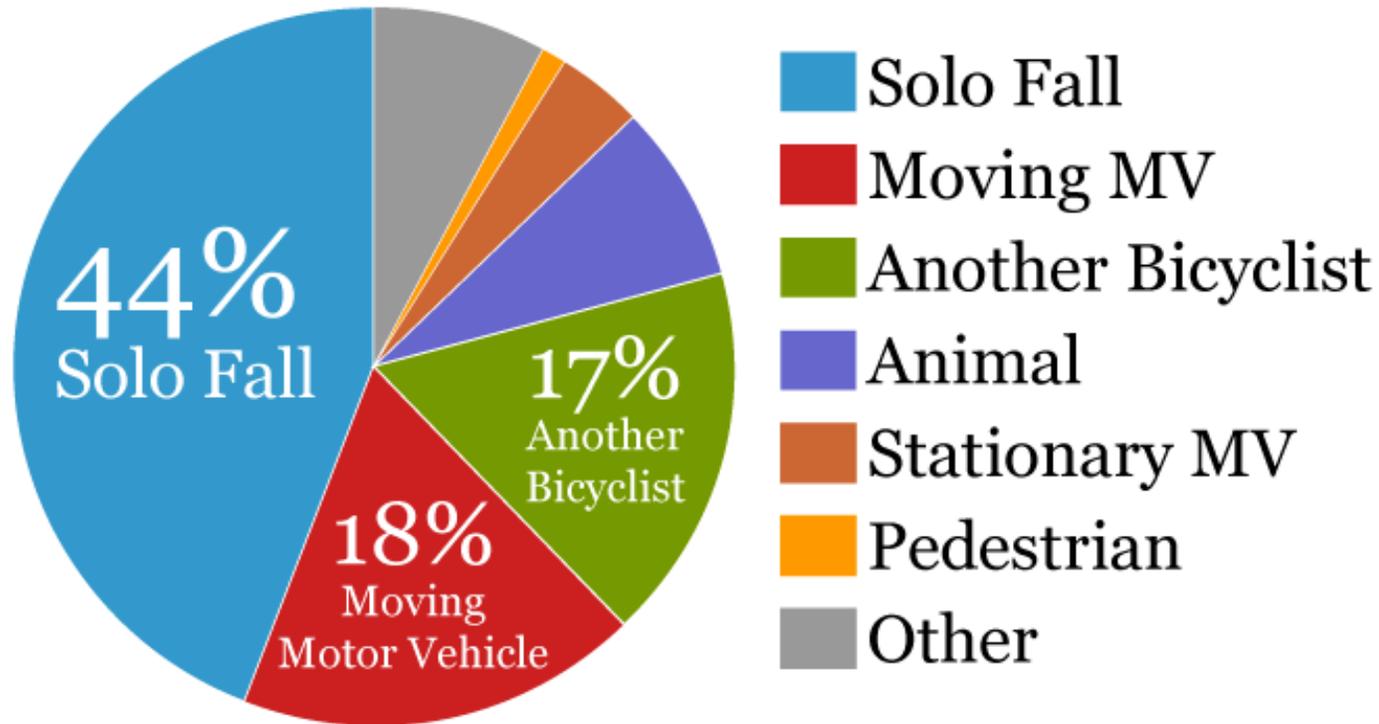
- Shared Lane Marking Revised Guidance
- Bike Lane/Travel Lane Width Redistribution
- Buffered Bike Lanes
- Crash Types and Countermeasures

# Florida Bicycle Law

- Bicycles are considered vehicles when operating on the roadway
- Must ride in same direction as traffic
- Bicyclists have “all the rights and responsibilities of pedestrians” when on the sidewalk or a path
- Must have lights and reflectors at night
- 3' clear law
- Mandatory bike lane law, except when....
- Must provide for bicycle and pedestrian transportation when planning, designing, and building roads
- PPM, Design Standards provide criteria and standards – BOTH updated

# Typical Bicycle Crash Types

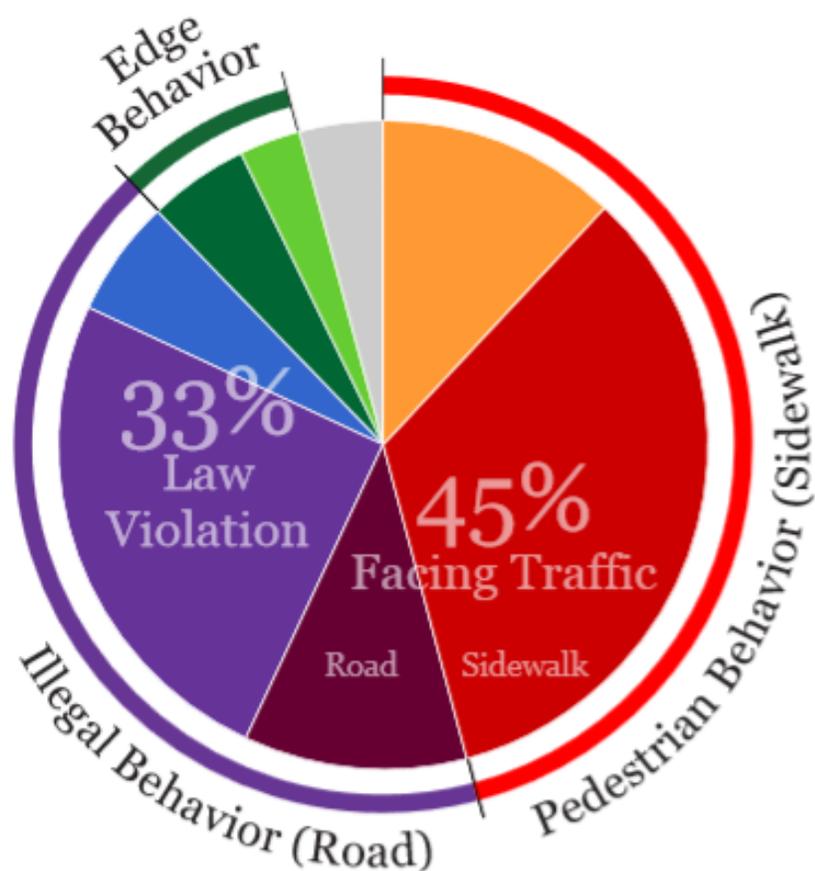
## Common Crash Types



# Common Fall Causes

- Sand or gravel
- Pavement condition
- Longitudinal cracks
- Gutter seams
- Bollards
- Drain Grate

# Crashes & Behavior

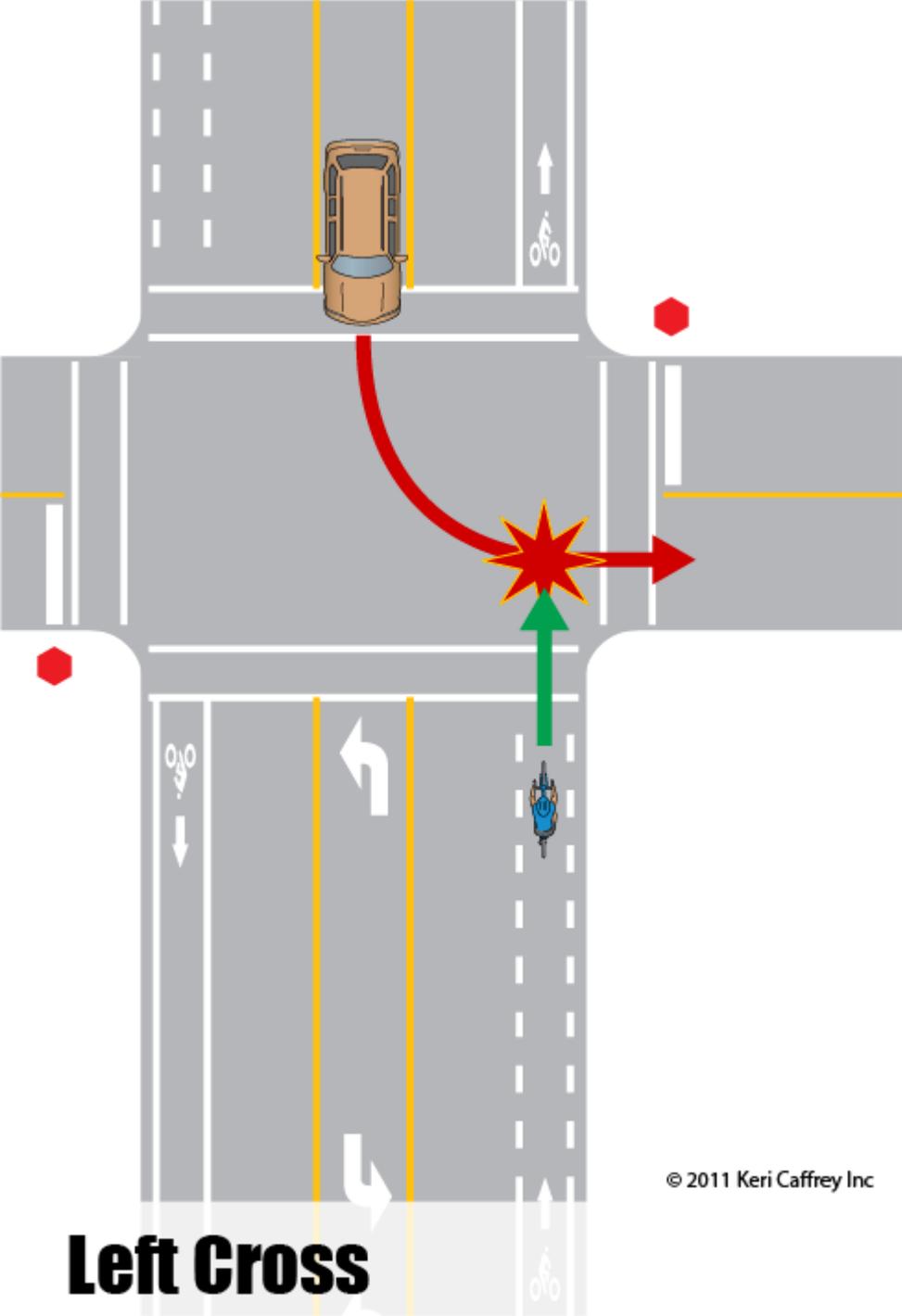


## Reducing Your Risk

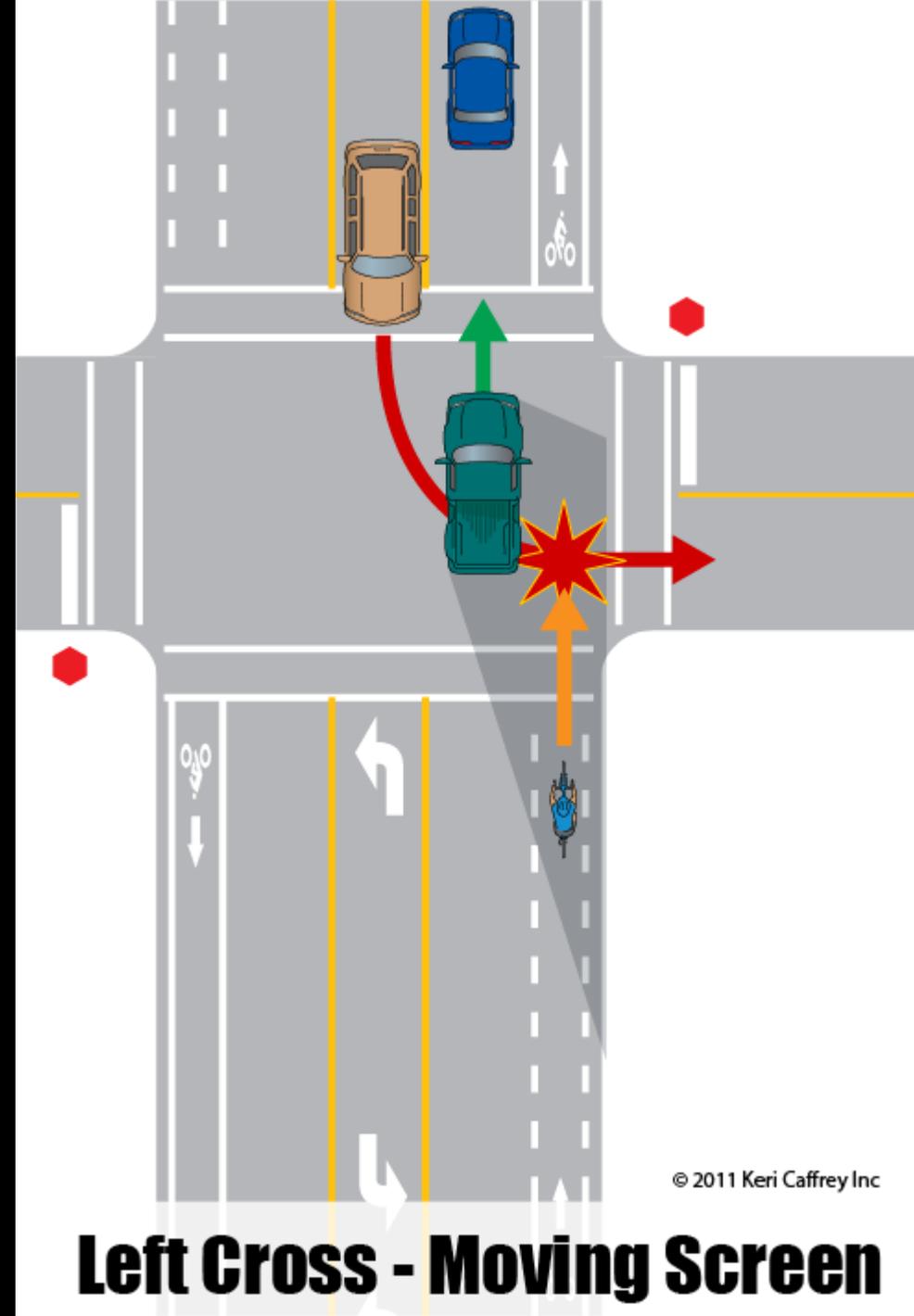
- Avoid Illegal Behavior**
  - Ride with traffic.
  - Obey traffic control devices.
  - Respect right-of-way.
  - Ride sober.
- Drive on the Road**
  - Understand the limitations of bicycling in pedestrian space.
- Defensive Driving**
  - Be relevant.
  - Protect your space.
  - Achieve vantage and visibility.

# Motor Vehicle Crash Types

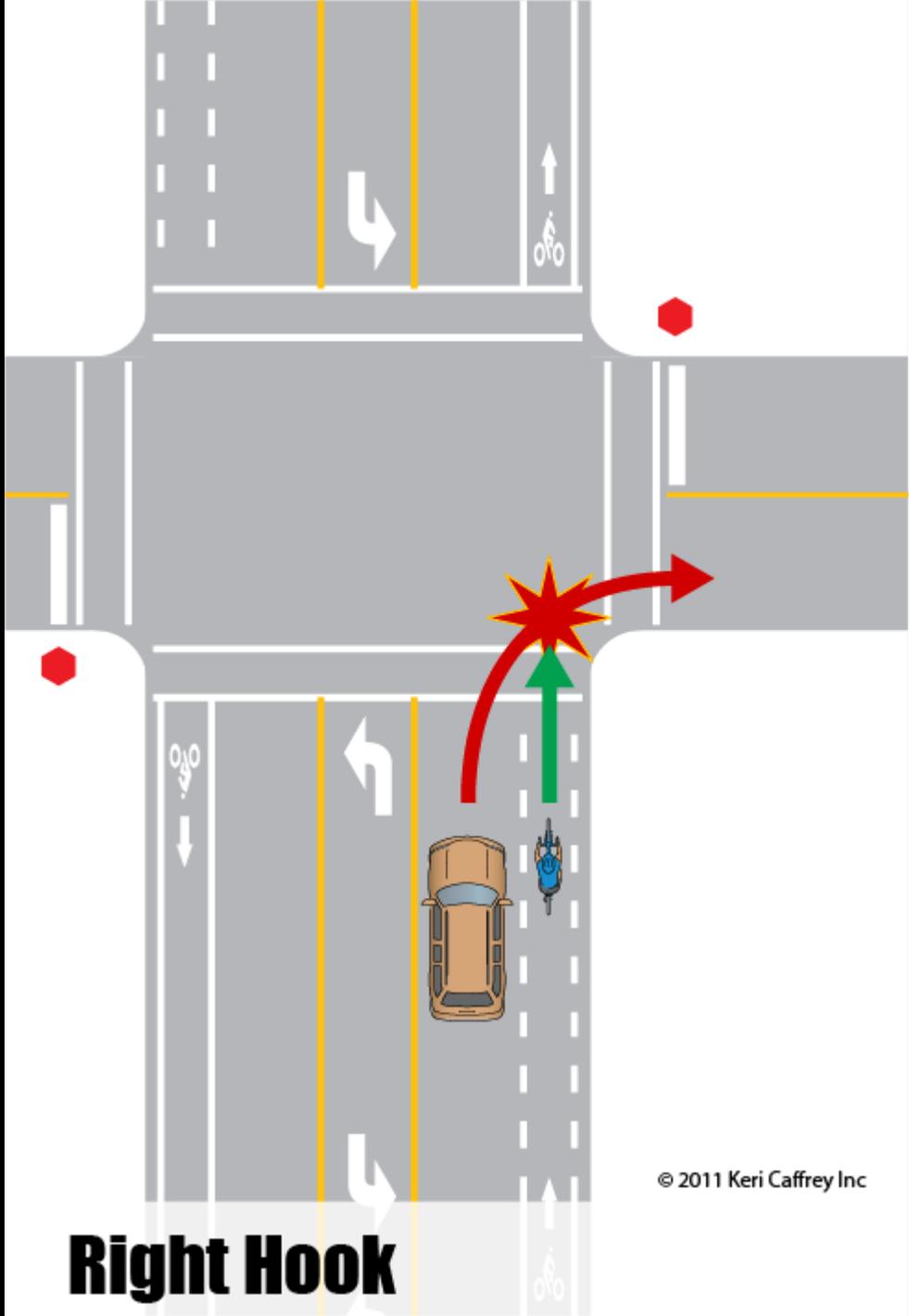
- Left Cross
- Right Hook
- Drive Out
- Sideswipe/ Rear Overtaking
- Dooring



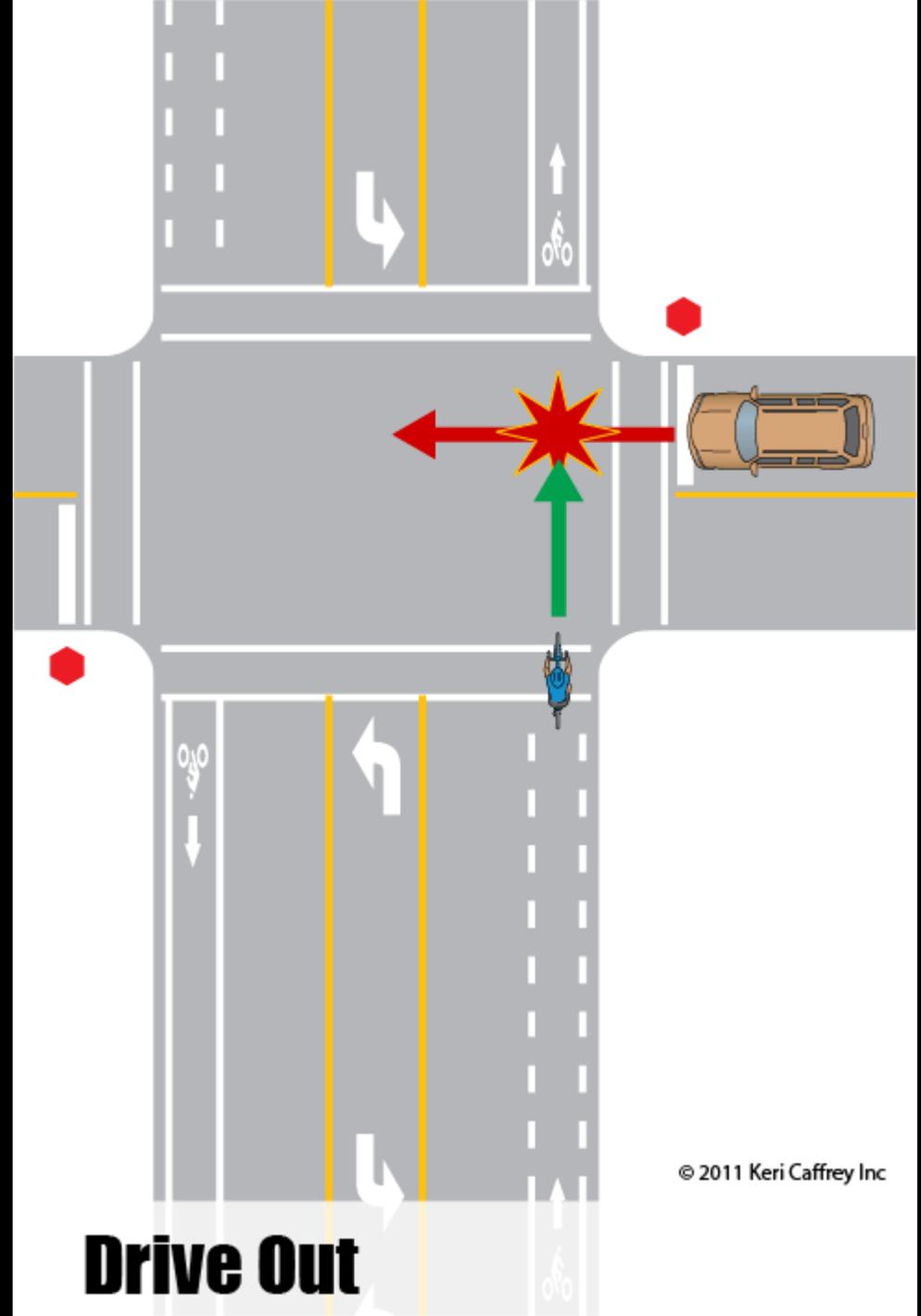
**Left Cross**



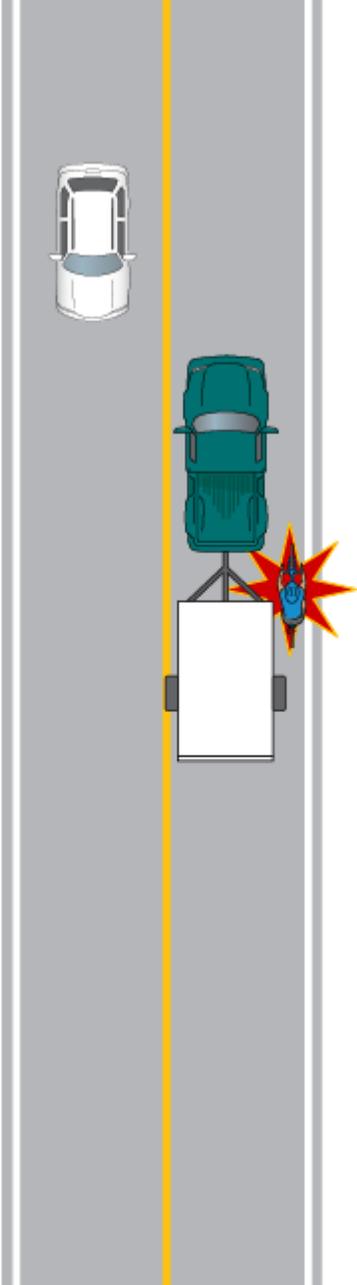
**Left Cross - Moving Screen**



**Right Hook**

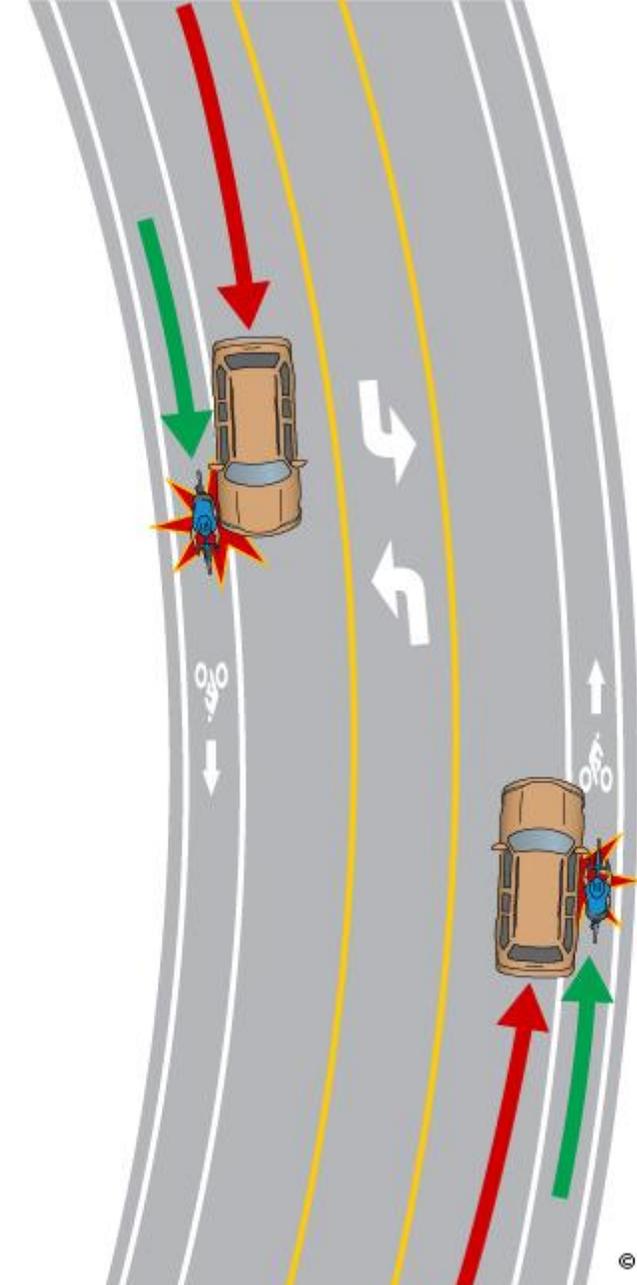


**Drive Out**



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**Overtaking - Sideswipe**



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**Overtaking - Motorist Drift**





# Edge Riding Behavior

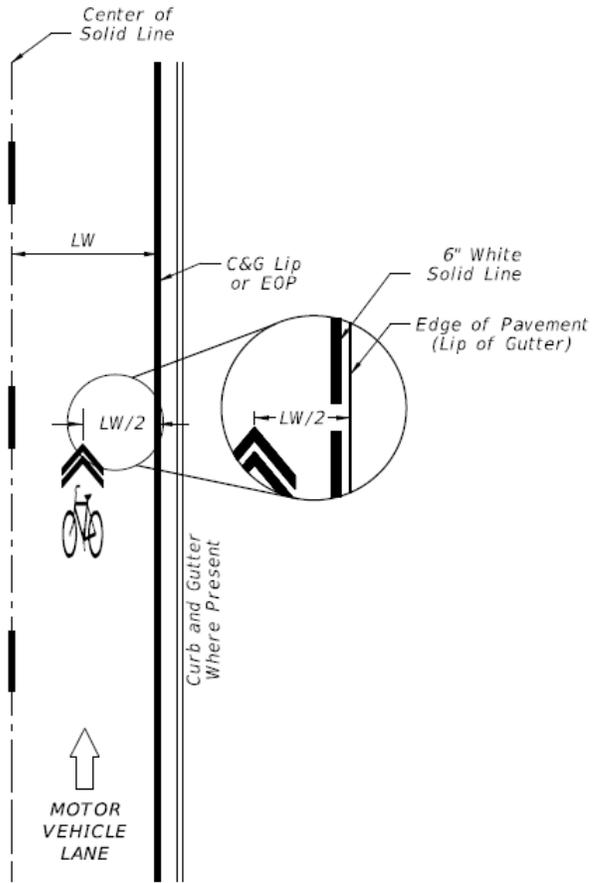
- Sets up many of these crash types (including sideswipes and rear-overtaking)
- Must be avoided or discouraged in facilities design
- Need to encourage either lane control, or provide sufficient space to avoid edge riding pitfalls

# Revised Guidance

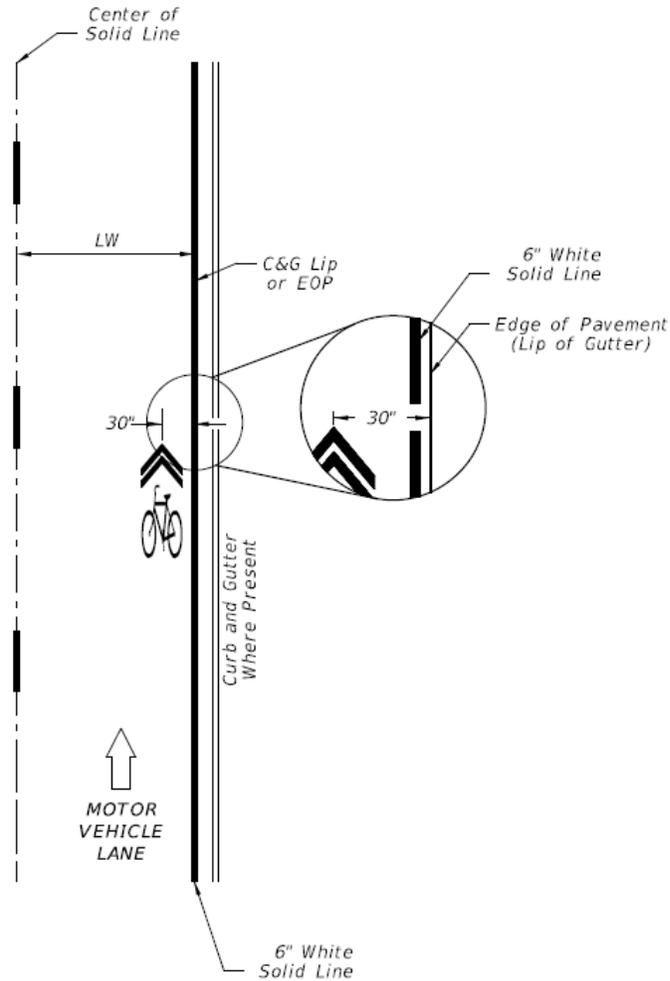
- Shared Lane Marking Placement
- Bicycle lane minimum and recommended widths
- Recommended width based on travel speed
- New facility type – Buffered Bike Lane
- New flexibility on travel lane widths – 11' acceptable in most conditions now

# Shared Lane Markings

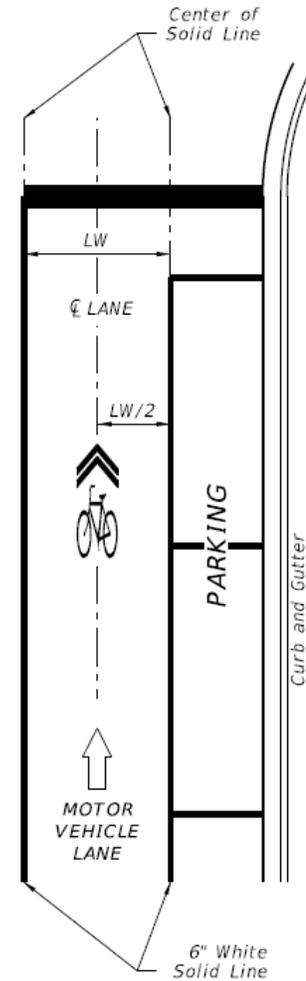
SHARED LANE MARKINGS



SCENARIO #1  
 $LW < 14'$



SCENARIO #2  
 $LW \geq 14'$



SCENARIO #3  
ADJACENT TO PARKING



**MAY USE  
FULL LANE**

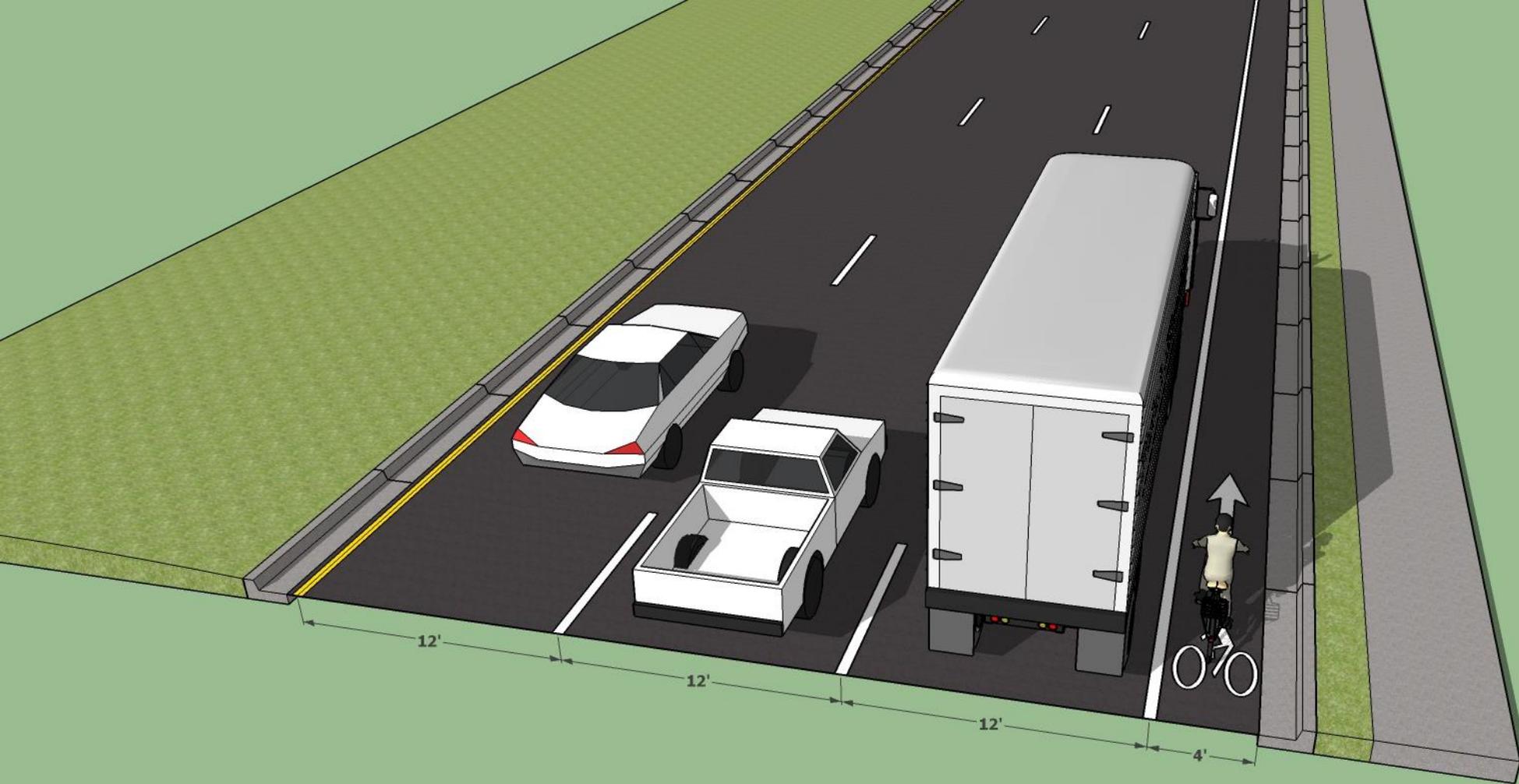
R4-11

# Bicycle Lanes

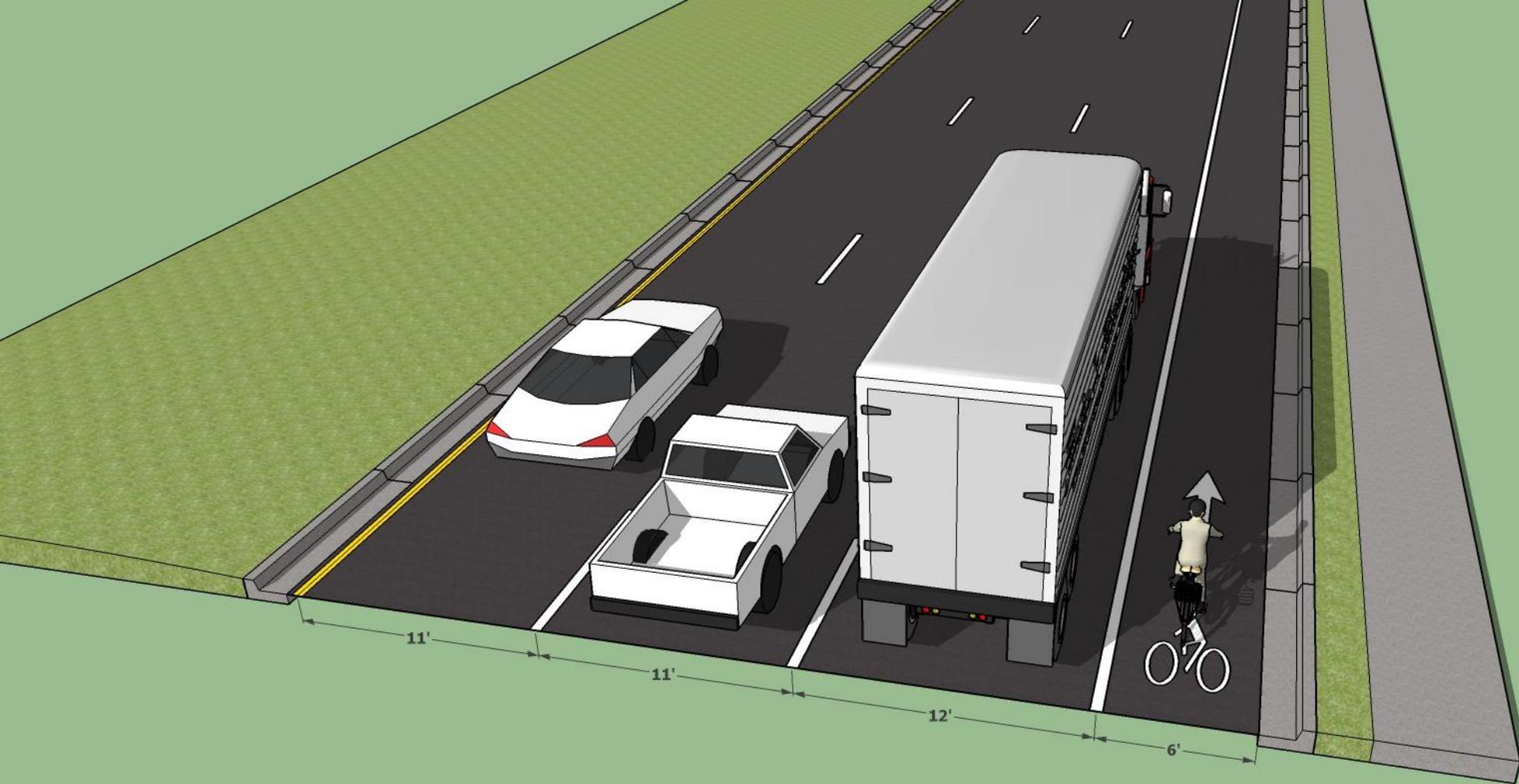
- 5' minimum width/7' minimum if adjacent to on-street parking
- 6' recommended width for 45 mph or greater
- 6' minimum or 7' buffered on any 6-lane roadway

# Lane Width Flexibility

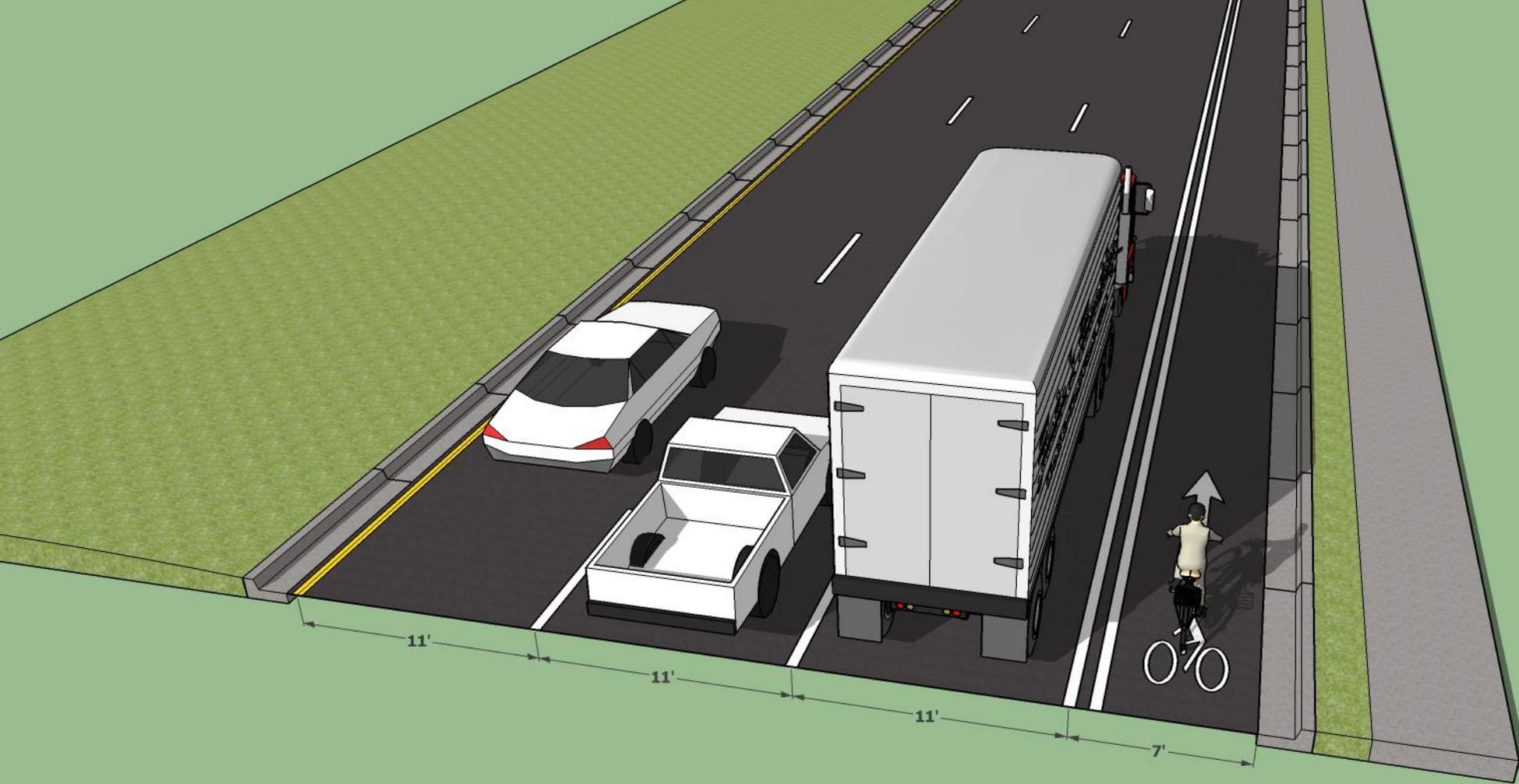
- Retrofit existing roads for narrower travel lanes and wider bike lanes
- Allows more options for bike lane applications



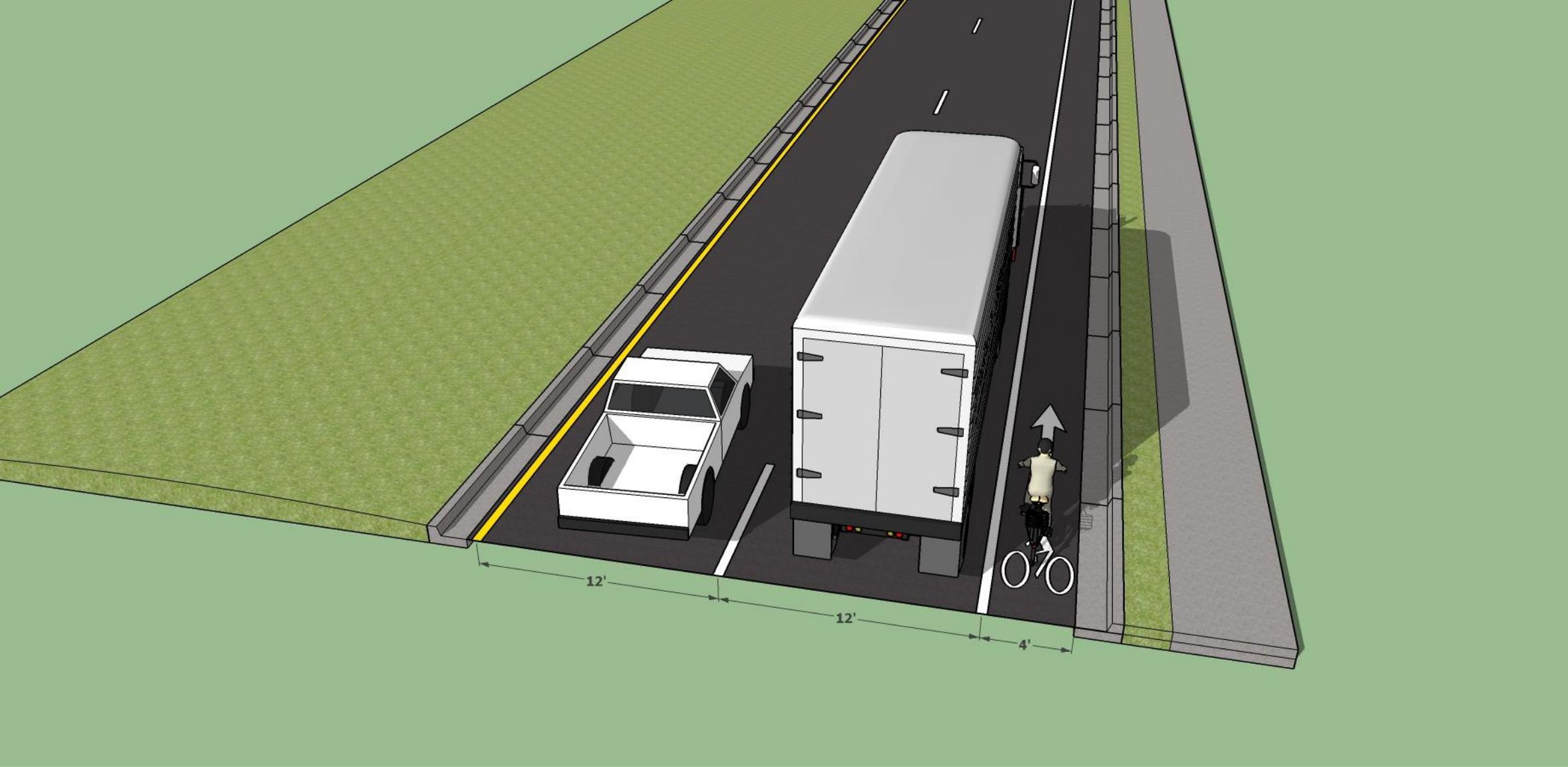
Current Standard – Max Travel Lane Width,  
Minimum Bicycle Lane Width



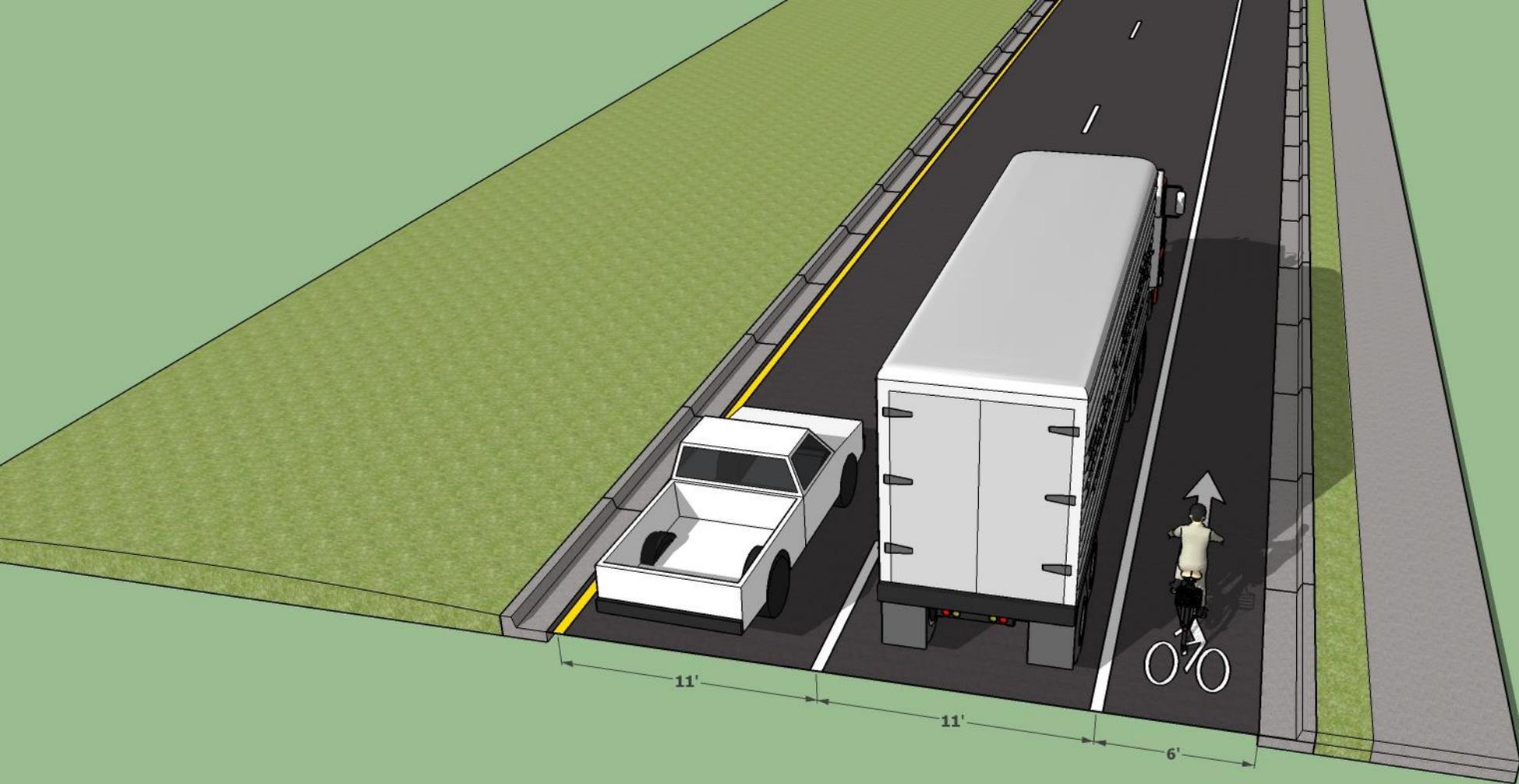
6L 40 mph or greater – >10% Trucks



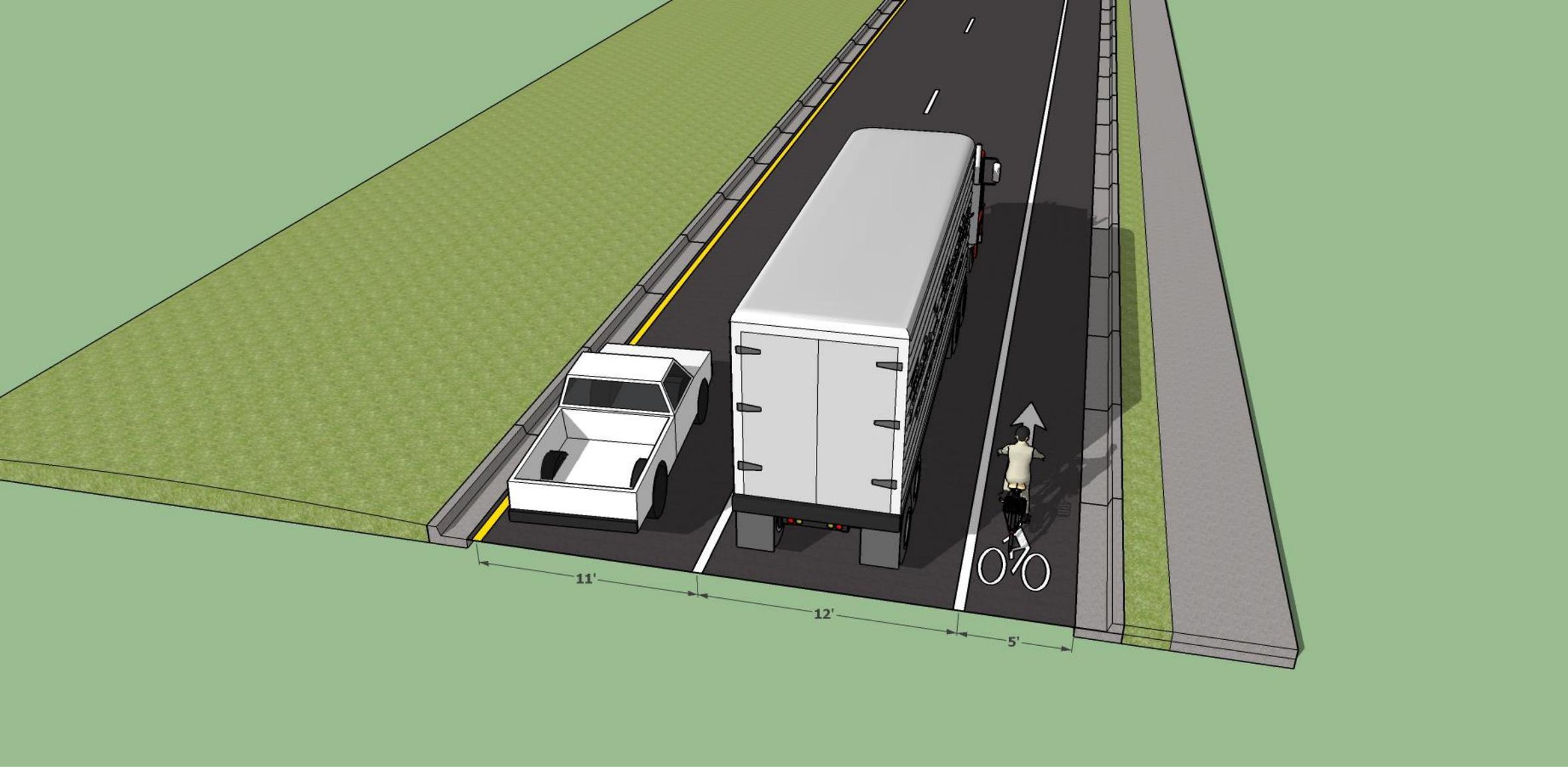
6L 40 mph or greater –10% or less Trucks



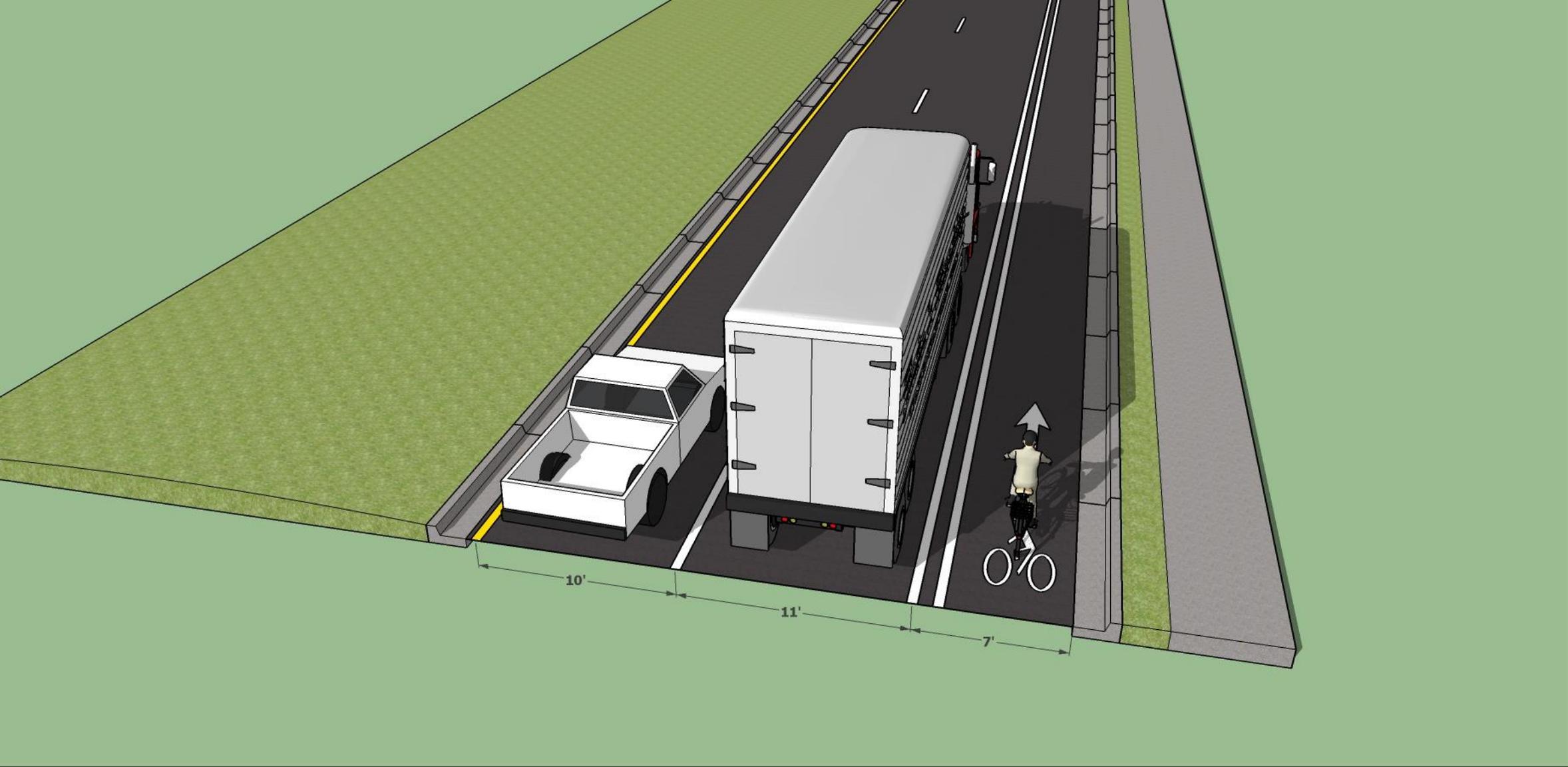
4L Standard today 12/12/4



4L 45 or more mph - 6' bike lane



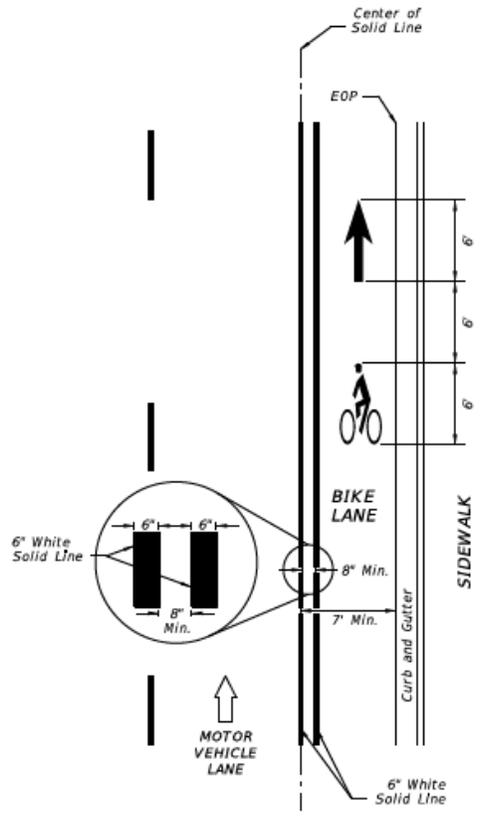
4L 40 mph or less-5' minimum width bike lane ok



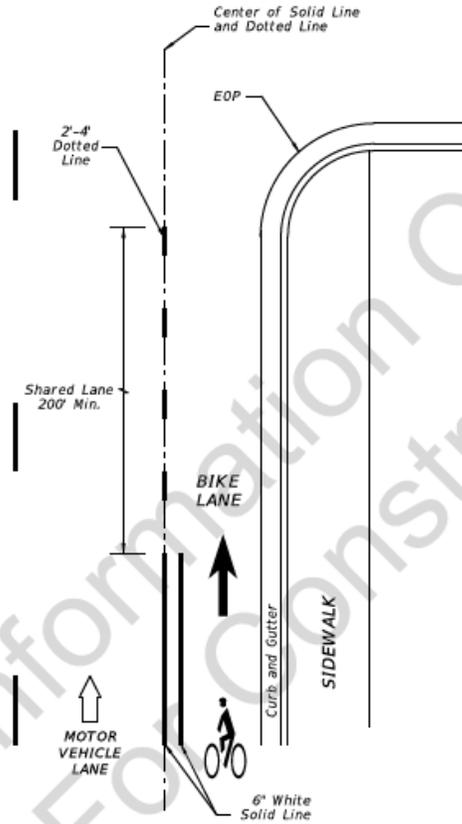
4L 35 mph or less (by exception or variation)

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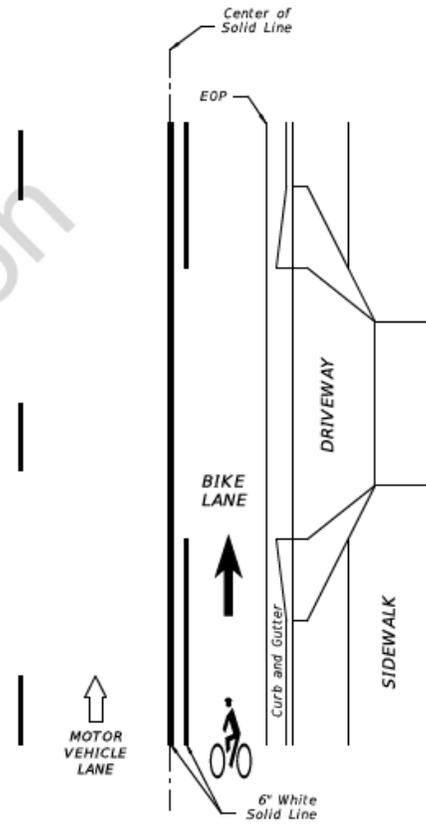
# Buffered Bike Lane



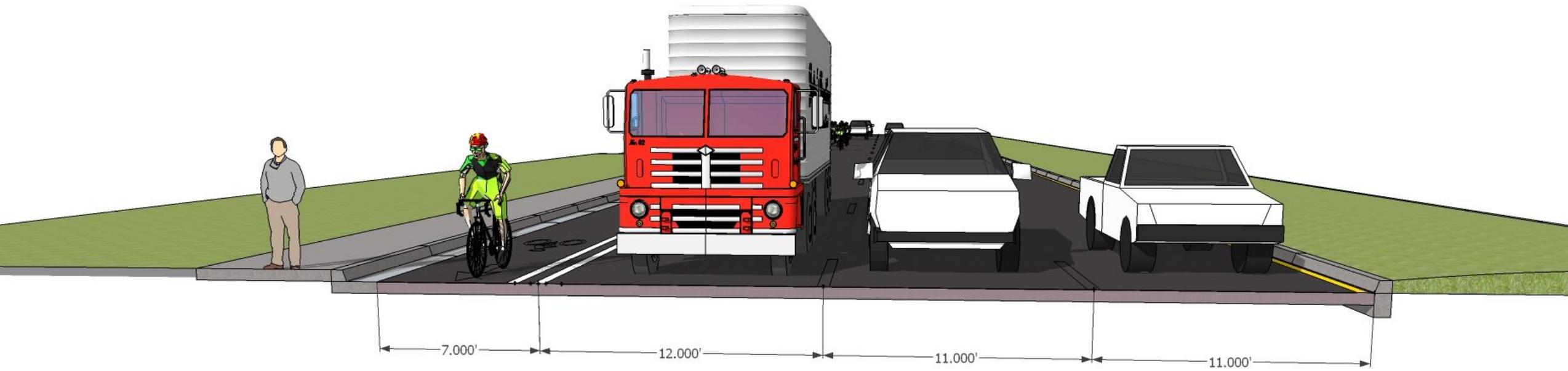
STANDARD BUFFERED BIKE LANE DETAIL



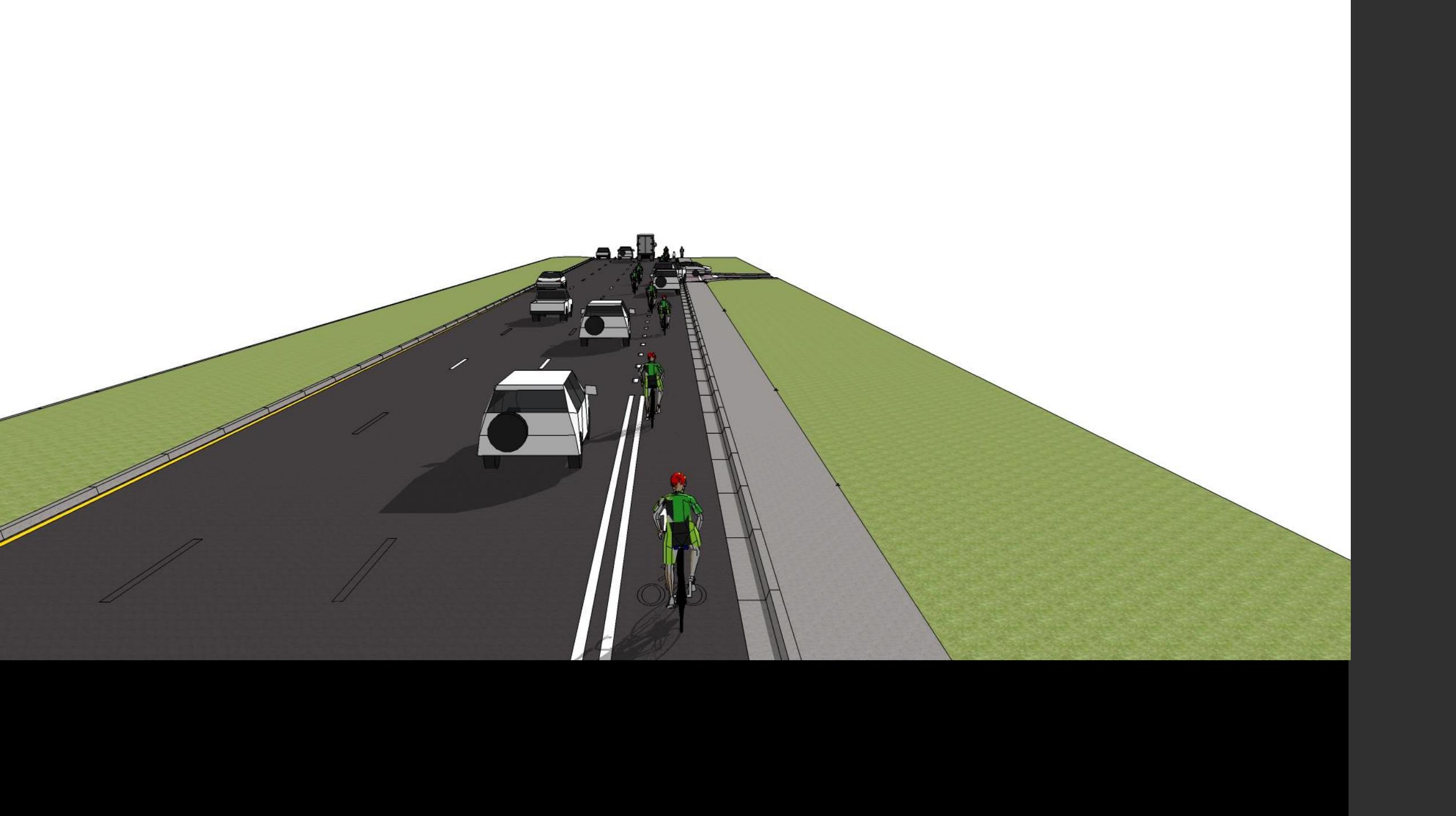
BUFFERED BIKE LANE DETAIL APPROACH TO INTERSECTIONS

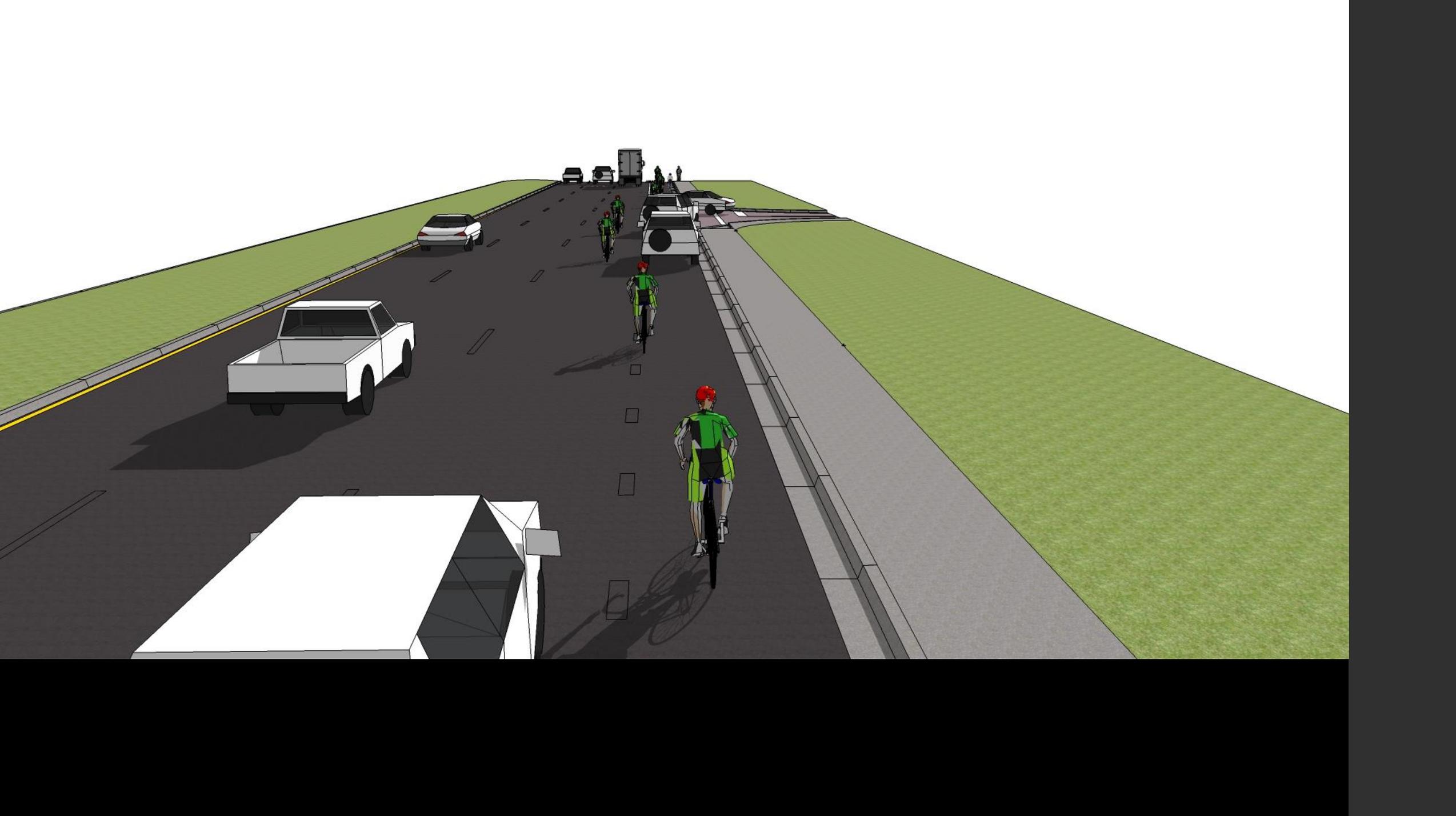


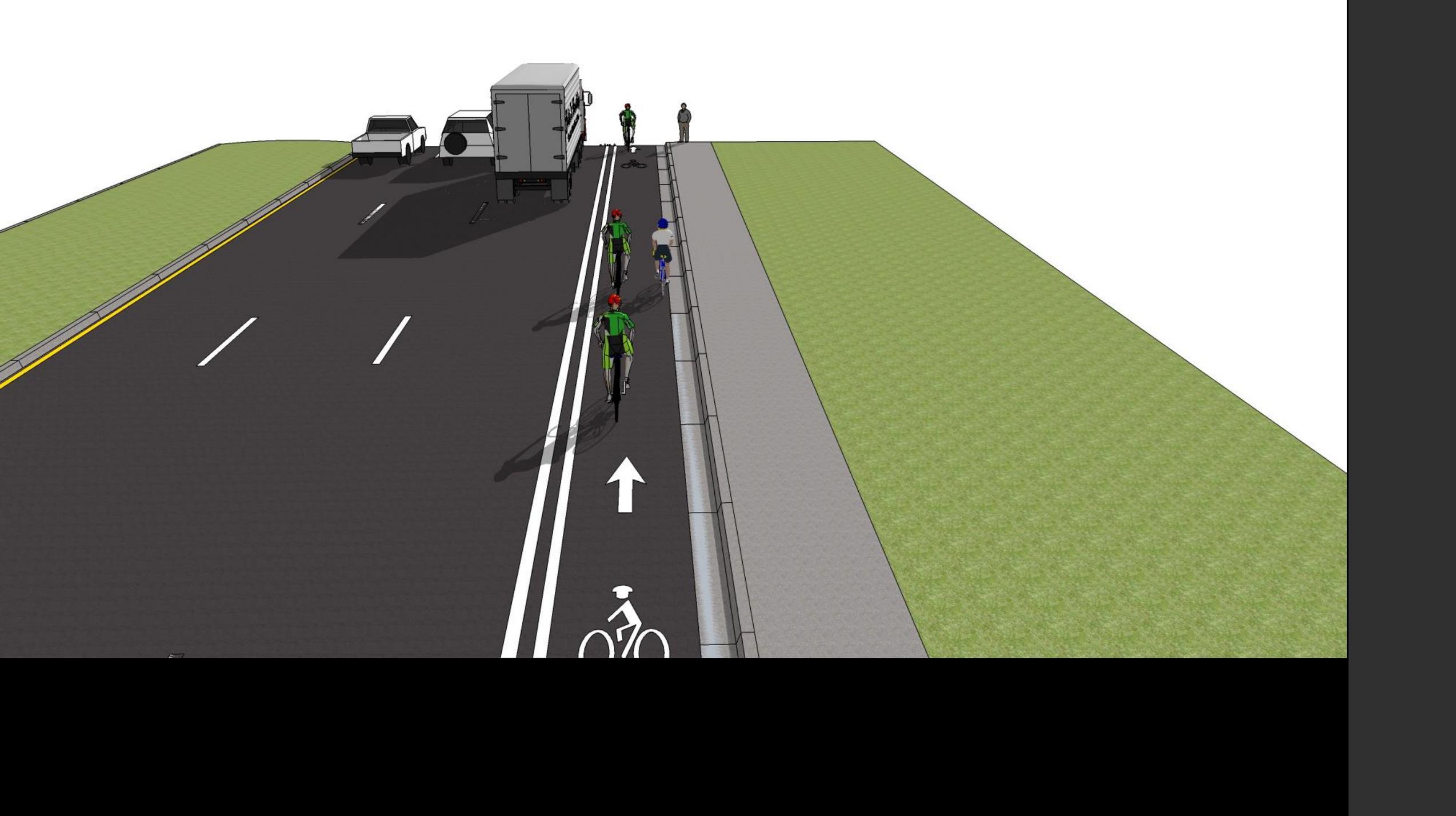
BUFFERED BIKE LANE DETAIL APPROACH TO MINOR DRIVEWAYS













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