Common Sidepath Crash Types

CRASH ANALYSIS FINDINGS

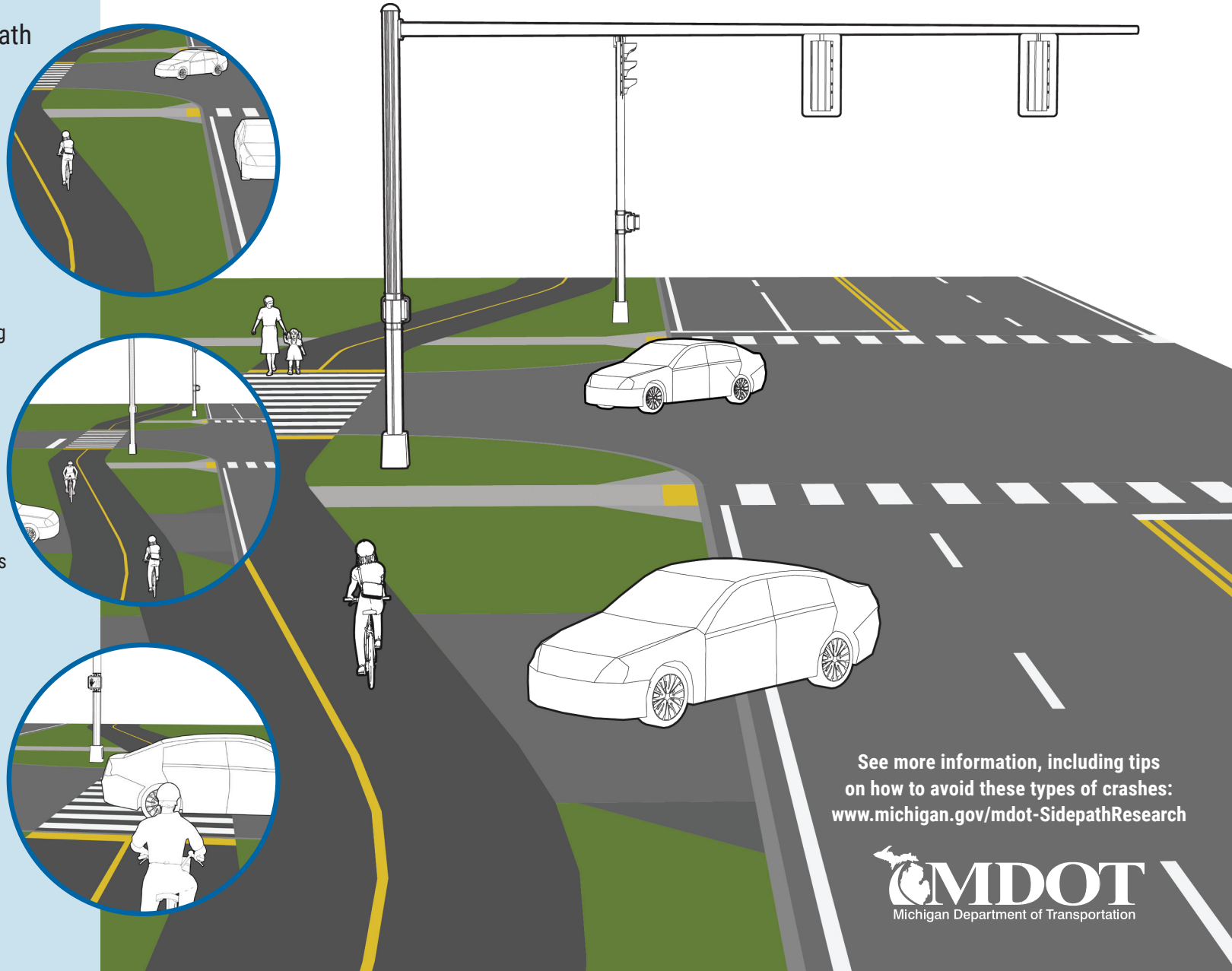
A statistical analysis of sidepath crashes in Michigan found two statistically significant patterns in crashes.

RIDING AGAINST THE DIRECTION OF TRAFFIC

- Sidepaths are two-way facilities, yet bicyclists riding against traffic are at higher risk of a crash than those riding with traffic
- Specifically, bicyclists riding against traffic have a higher risk of crashing with right-turning vehicles than those riding with traffic
- Bicyclists riding against traffic have a higher crash risk at commercial driveways and signalized intersections than those riding with traffic

AT INTERSECTIONS

- Bicyclists riding through signalized intersections—which generally have higher amounts of vehicle traffic—have a higher crash risk than at intersections with other types of traffic control
- At intersections, sidepath bicycle crashes tend to occur with turning vehicles.



See more information, including tips on how to avoid these types of crashes: www.michigan.gov/mdot-SidepathResearch

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Bicycling on Sidepaths

SAFETY TIPS

USE CAUTION AT INTERSECTIONS

Watch for turning vehicles, which are involved in many of the bicycle crashes on sidepaths. Look for street signs indicating who has the right of way.

USE CAUTION AT DRIVEWAYS

Control your speed and be alert for cars and trucks at driveways. Drivers are often looking for gaps in traffic rather than bicyclists. Make eye contact to confirm that the driver can see you before asserting your right of way.

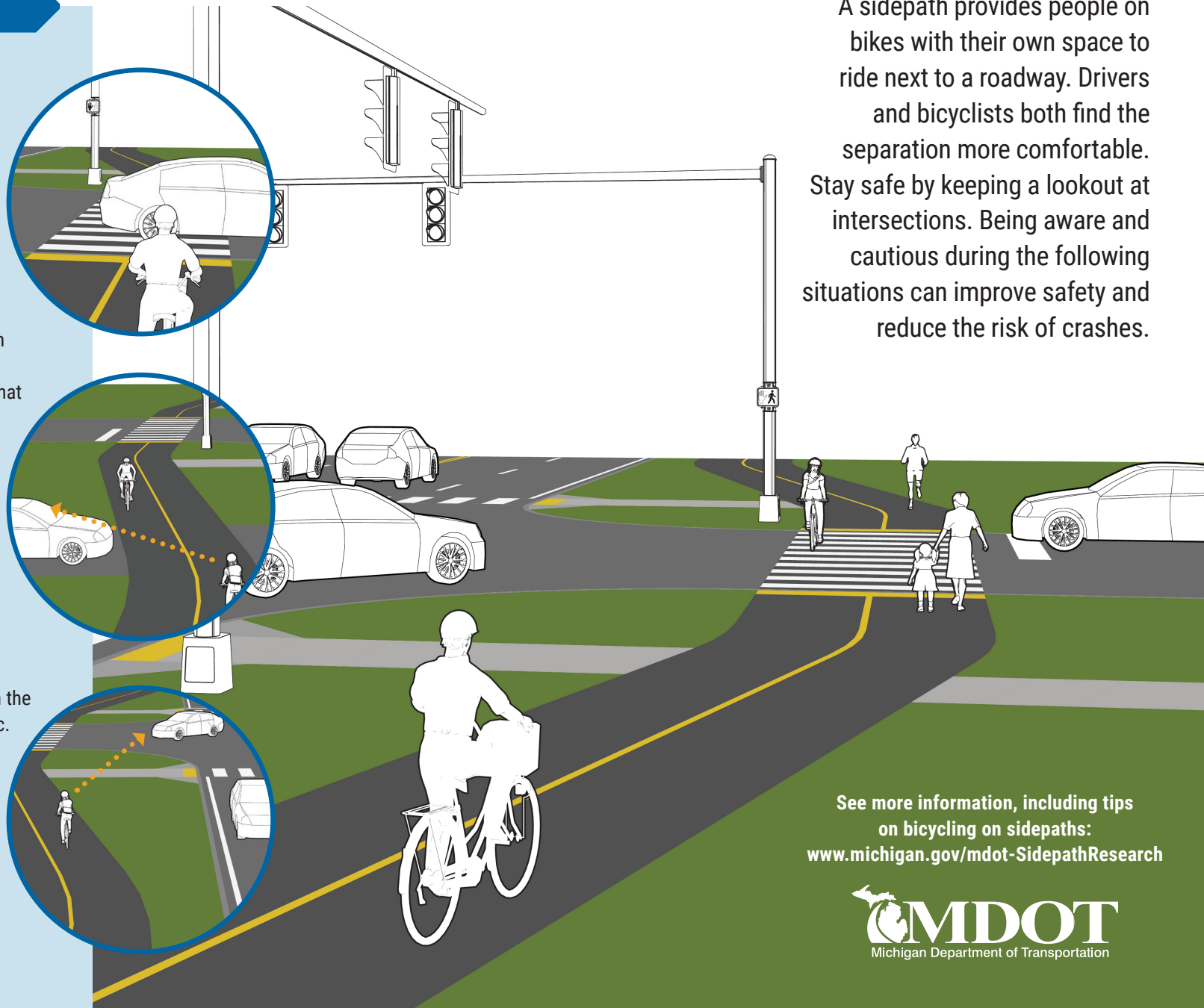
BE ALERT WHEN RIDING AGAINST THE DIRECTION OF TRAFFIC

On a two-way sidepath, bicyclists may ride in either direction. However, be especially alert when riding against the direction of traffic on the adjacent road. Drivers may not expect you to come from the opposite direction of motor vehicle traffic.

Pay special attention when encountering the following:

- Commercial driveways
- Signalized intersections
- Right-turning vehicles

Research shows that the risk of a crash is higher under these conditions.



A sidepath provides people on bikes with their own space to ride next to a roadway. Drivers and bicyclists both find the separation more comfortable. Stay safe by keeping a lookout at intersections. Being aware and cautious during the following situations can improve safety and reduce the risk of crashes.

See more information, including tips on bicycling on sidepaths: www.michigan.gov/mdot-SidepathResearch

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Driving Near Sidepaths

SAFETY TIPS

ALWAYS EXPECT PEOPLE ON SIDEPATHS

Crashes are more likely at crossings of less crowded sidepaths because drivers may not be expecting to see people on bikes there. Always look for sidepath users, even on quiet paths and at off-peak times.

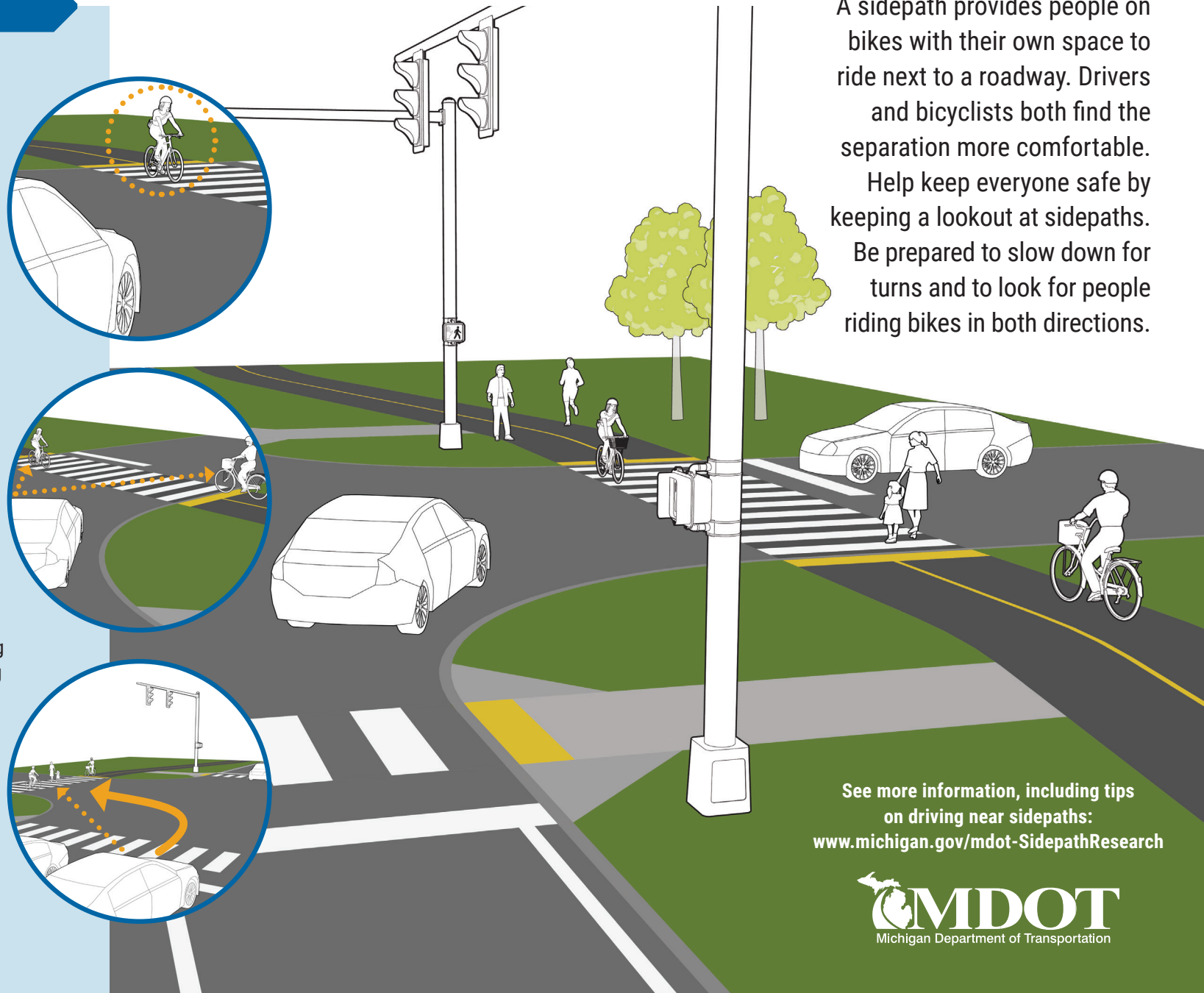
LOOK BOTH WAYS!

Remember that people ride bikes in both directions on sidepaths. Look both ways when crossing sidepaths at driveways and intersections.

BE CAREFUL MAKING TURNS, ESPECIALLY AT TRAFFIC LIGHTS

Sidepath bicycle crashes at intersections tend to occur when drivers are making turns. When making a turn, look both ways for people using sidepaths to avoid a crash.

It's especially important to look for bicyclists at signalized intersections. You should always double check for people on bikes before turning, even if you have a green light.



A sidepath provides people on bikes with their own space to ride next to a roadway. Drivers and bicyclists both find the separation more comfortable. Help keep everyone safe by keeping a lookout at sidepaths. Be prepared to slow down for turns and to look for people riding bikes in both directions.

See more information, including tips on driving near sidepaths: www.michigan.gov/mdot-SidepathResearch

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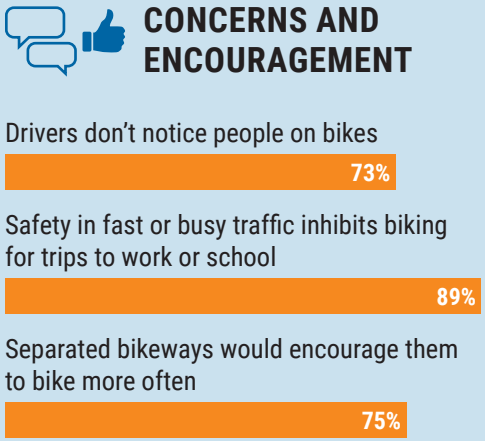
Why Build Sidepaths and Separated Bicycle Lanes?

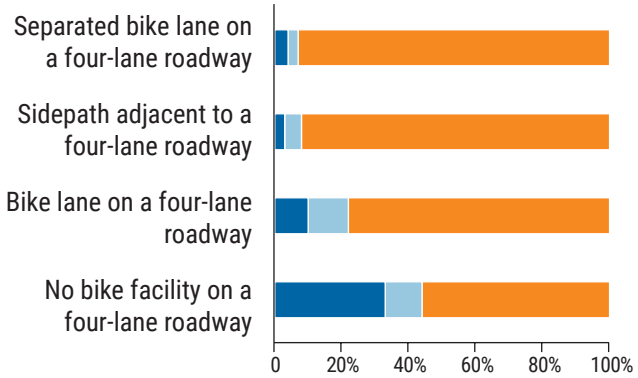
RESULTS OF A SURVEY OF MICHIGANDERS*

FAVORABLE VIEWS OF BICYCLING AND WALKING

CONCERNS AND ENCOURAGEMENT

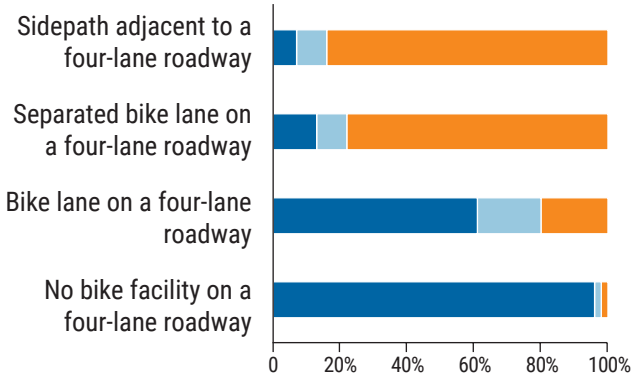


COMFORTABLE FOR DRIVING

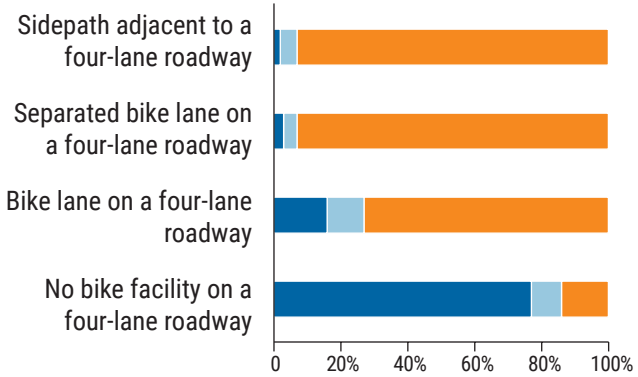


COMFORTABLE FOR BIKING WITH CHILDREN

For more information, see full reports.



COMFORTABLE FOR BIKING



KEY:
- Disagree or completely disagree
- Neutral
- Agree or completely agree

*Footnote indicating the date and total response rate for the survey.

See more information:
www.michigan.gov/mdot-SidepathResearch

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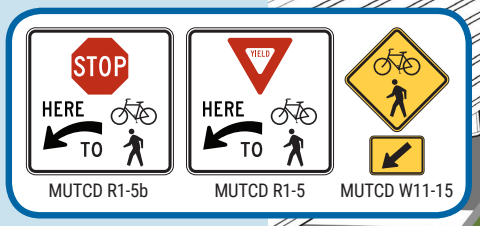
Sidepath Design Best Practices

HIGHLIGHTS

Designers may reduce crash risk for bicyclists by raising the visibility of bicyclists going in both directions, establishing priority, and reducing speed. Following are some examples of how this can be achieved through treatments such as signs, truck aprons, and raised crossings.

1 STANDARD SIGNS

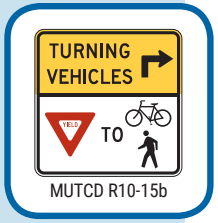
Providing clear signs and pavement markings warns motorists of a bicycle contraflow conflict. The guide shows applicable regulatory, signal, and warning signs related to sidepaths and provides suggestions on when they should be used.



MUTCD R1-5b MUTCD R1-5 MUTCD W11-15

2 NON-STANDARD SIGNS

An option for warning motorists of contraflow bicycle conflict is the R10-15b sign, which is usually found at signalized locations. Use of this sign at unsignalized intersections will require FHWA approval.

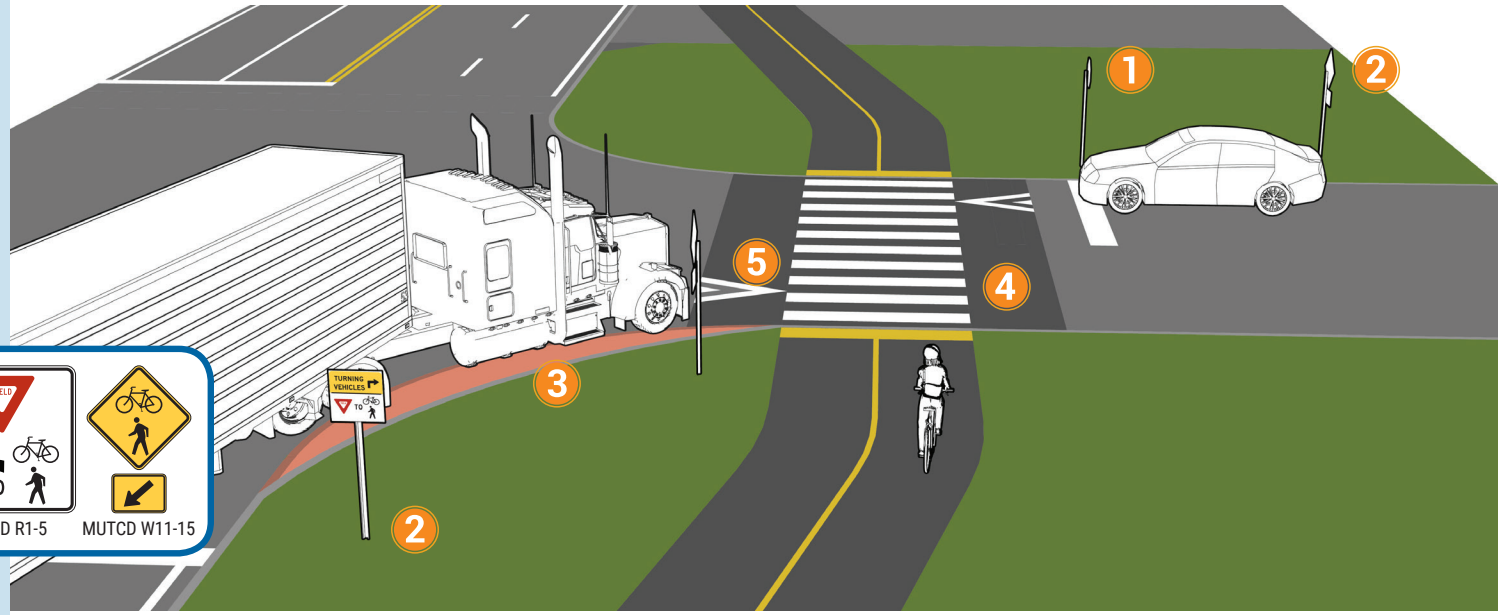


MUTCD R10-15b

4 RAISED CROSSINGS

Creating a raised crossing encourages drivers to slow down and pay more attention to the crossing, helping to achieve the desired vehicle speed and driver awareness.

MDOT's Sidepath Intersection and Crossing Treatment Guide contains information on the latest state-of-the-practice principles for designing sidepath crossings. This handout highlights just some of the guidance. Refer to the full guide for more information on these designs and their application. The process in the guide is designed to help practitioners evaluate the appropriateness of elements such as those shown here.



EXAMPLE INTERSECTION

There are many designs for roads and sidepaths that improve safety for bicyclists. This example intersection graphic shows several treatments that designers may employ.

1. In this example, the **stop sign** for drivers gives bicyclists the priority through the intersection. At signalized intersections, this can be achieved using a **dedicated bicycle signal phase** or **leading interval**, depending on vehicle volumes.
2. A **sign** warns motorists to look for sidepath users ahead*.
3. The **curb radii** entering and exiting the intersection are reduced to slow vehicles and increase motorist yielding. The truck apron shown allows for truck movements. The **offset distance** between the sidepath and the motorist travel lane is increased to slow vehicles.
4. The **raised crossing** is designed to slow motorists by requiring them to ramp up to the sidepath. This design also provides a level crossing for the sidepath users.
5. White intersection **pavement markings** are provided to alert drivers of the potential for crossing bicyclists.

* The use of the R10-15b as portrayed in the figure above is not consistent with current MUTCD standards and will require FHWA approval.

See more information:
www.michigan.gov/mdot-SidepathResearch

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