

# **Table of Contents**

Pr	epared by	3
Сс	ontributors	3
Ex	ecutive Summary	4
Int	roduction	5
Int	frastructure	6
Pedestrian Infrastructure		6
	Crosswalk Law	6
	What are pedestrians NOT allowed to do?	7
	Leading Pedestrian Interval	9
	Signal Coordination	10
	Concurrent Phasing	10
	Exclusive Pedestrian Phasing	11
	Split Phasing	12
	Hot Response	13
	Left turn phasing	14
	Runners/Walkers in the Road	14
	Blind persons - Americans with Disabilities Act (ADA)	15
	Crossing Guards and School Zones	17
	Driveway Right of Way	17
Bi	cycle Infrastructure	19
	Sharing The Road	19
	Bike Lanes	20
	Advisory Bike Lanes	21
	Roundabouts	22
	Separated Bike Lane (or Protected Bikeway or Cycletracks)	23
	Buffered Bike Lane	24
	Shared use pathways	25
	Contraflow Bike Lanes	26

# Bicycle & Pedestrian Safety Training for Driver's Education Instructors 2

Share the Road Sign	28
Bike May Use Full Lane Sign	28
Bike Box	29
Green Bike Lanes	31
Non-Infrastructure	
Vehicular Cycling	32
Why a Bicyclist Might Take the Lane	32
Safe passing	33
Door Zone	35
Passing in Unsafe Situations	35
Car Turning Right at Intersections	36
Left Turns with Oncoming Bicyclists	36
Bicycle Riding Against Traffic	37
Bicycle Riding on Sidewalks	37
Be Aware of Mistakes Bike Riders May Make	37
Pedaling on Crosswalks and Sidewalks	38
Group Bicycle Riding	38
Honking	38
Bicycle Rider Hand Signals	38
Lights and Bells	39
Sharing the Road with Skateboarders, Inline Skaters and other Persons on Wheels	40
Other Situations	40
What to Teach Bicyclists	41
About New Jersey Bike & Walk Coalition	42
Acknowledgements	42
Photo Credits	43
Appendix A: Sample Bicycle Friendly Driver Exam	45
Appendix B: Sample Demographic & Program Evaluation Sheets	49

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# **Executive Summary**

In January 2018, the New Jersey State Legislature unanimously passed, and Governor Chris Christie signed into law, A4165/S2894, which requires that driver's education include bicycle and pedestrian safety information in the course, in the driver's education manual and on the license exam. This curriculum was developed to provide New Jersey's Driver's Education Instructors with the information they need in order to meet this new law.

The "Bicycle Friendly Driver" can only arise when we as a state make a concerted effort to educate motor vehicle drivers about their responsibilities regarding the rights of pedestrians, bike riders, and other vulnerable road users. As New Jersey's percentage of road deaths that occur to vulnerable road users continues to be over 30%, which is double the national average, education of drivers becomes critical to efforts to reduce that statistic to zero, and fits in to the "three E's" of a bicycle-friendly community: education, engineering and enforcement.

The goal of the curriculum is to educate drivers in two main areas: 1) road infrastructure that is intended to improve bicycle and pedestrian safety; 2) the rules of the road for pedestrians, bicyclists and motor vehicle drivers – what drivers should do when they encounter bicyclists and pedestrians.

Too often, drivers are not aware of why certain road infrastructure exists, or why bicyclists and pedestrians behave in certain ways. Helping them to understand the "what" and "why" should empower them to respond in a way that ensures the safety of these road users as drivers come into their vicinity.

# Introduction

What is a sharrow? How does a driver respond to a pedestrian in a crosswalk? Why do bicyclists raise their left arm? All motor vehicle drivers in New Jersey should know the answers to these questions. Unfortunately, that is too often not the case: pedestrians stand helplessly at crosswalks while motor vehicle traffic whizzes by; bicyclists take the lane where there are sharrows and drivers beep their horns behind them; and tragically; drivers veer around bicyclists who are signaling left turns, resulting in catastrophic consequences.

In January 2018, the New Jersey State Legislature unanimously passed, and then-Governor Chris Christie signed into law, A4165/S2894 which requires the state's driver's education program to include bicycle and pedestrian safety information in the curriculum, in the driver's education manual and on the license exam. Since New Jersey is at or near the top of the list in the nation when considering the percentage of road fatalities that occur to "vulnerable road users," it is imperative that the state enact these types of laws and follow through with the implementation of them. The concept of the "bicycle friendly driver" and the "pedestrian friendly driver" should be embedded in the education process, in a way that makes road safety everyone's responsibility. This curriculum is a first step in that direction.

The curriculum was developed to provide New Jersey's Driver's Education Instructors with the information they need in order to meet this new law and to bring about this cultural change in how we as drivers think about all road users. It serves as a basis for the concepts that driver's education instructors should include in their curriculum. It can also be used by anyone who is interested in improving their knowledge of the rules of the road for bike riders and pedestrians.

The curriculum is divided into two main areas: 1) road infrastructure that is intended to improve bike rider and pedestrian safety; and 2) rules of the road for pedestrians, bicyclists and motor vehicle drivers—what drivers should do when they encounter bicyclists and pedestrians.

Within these two mains sections are key concepts about what the law is, what it means for motorists, and in most cases, a reference for further information. A sample Bicycle Friendly Driver exam and sample Demographic & Program Evaluation Sheets are provided in the appendix as tools for instructors to measure their students' comprehension of the material and evaluate the course.

# Infrastructure

## **Pedestrian Infrastructure**



### Crosswalk Law

- MOTORISTS in New Jersey MUST stop for pedestrians in a marked crosswalk.
- Driver to stop for pedestrian: exceptions, violations, penalties. New Jersey Statute 39:4-36 -- Failure to observe the law may subject you to one or more of the following:
  - o 2 Points
  - \$200 Fine (plus court costs, the fine for minors is \$22)
  - 15 Days Community Service
  - **Insurance Surcharges**
- The driver of a vehicle must stop and stay stopped for a pedestrian crossing the roadway within any marked crosswalk, but shall yield the right-of-way to a pedestrian crossing the roadway within an unmarked crosswalk at an intersection, except at crosswalks when the movement of traffic is being regulated by police officers or traffic control signals, or where otherwise prohibited by municipal, county, or state regulation, and except where a

pedestrian tunnel or overhead pedestrian crossing has been provided, but no pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle that is so close that it is impossible for the driver to yield.

- Whenever any vehicle is stopped to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.
- Every pedestrian upon a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the rightof-way to all vehicles upon the roadway.
- o A person violating this section shall, upon conviction thereof, pay a fine to be imposed by the court in the amount of \$200. The court may also impose a term of community service not to exceed 15 days.
- Of each fine imposed and collected pursuant to subsection B of the section, \$100 shall be forwarded to the State Treasurer who shall annually deposit the moneys into the "Pedestrian Safety Enforcement and Education Fund" created by section 1 of PL 2005, c 84 (C.39:4-36.2)
- PEDESTRIANS MUST obey pedestrian signals and use crosswalks at signalized intersections. Both carry a \$54.00 fine for failure to observe the law. (C.39:4-32 and 33)

#### WHAT DOES THIS MEAN?

- Crosswalks exist at **all legs of all intersections**, including "T" intersections, unless they have a sign that prohibits pedestrian crossing. Not every crosswalk is marked with painted lines. Crosswalks may be either marked or unmarked.
- A marked crosswalk is any portion of the road outlined by painted markings or a difference of texture of concrete or pavers.
- Motorists MUST STOP, and stay stopped, for pedestrians in a marked crosswalk and failure to do so can result in fines, points on your license and community service.
- At unmarked crosswalks, the motorist must yield the right-of-way to pedestrians.
- Pedestrians do not have the right of way at points other than marked and unmarked crosswalks and should yield to motorists on the roadway

For further information: NJ Division of Highway Traffic Safety https://www.nj.gov/oag/hts/pedestrian.html

# What are pedestrians NOT allowed to do?

• For state law governing pedestrian movements, see Title 39:4-32 (Crossing roadway; signal). It reads as follows (letters are from the statute) –

On highways where traffic is controlled by a traffic control signal or by traffic or police officers:

- o a. "Pedestrians shall not cross a roadway against the "stop" or red signal at a crosswalk, whether marked or unmarked, unless otherwise specifically directed to go by a traffic or police officer, or official traffic control device." This means that unless a police officer directs a pedestrian to do otherwise, he or she may only cross when the light is green or the pedestrian "WALK" signal is displayed.
- o d. "No pedestrian shall leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield or stop." "A pedestrian should never run recklessly into traffic."
- o f. "Every pedestrian upon a roadway at any point other than a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway." At locations other than crosswalks, vehicles have the right-of-way and pedestrians should not expect motorists to stop for them. Pedestrians should cross at crosswalks whenever possible; if this is not possible, pedestrians need to exercise extreme caution when crossing.
- g. "Nothing herein shall relieve a pedestrian from using due care for his safety." A pedestrian is responsible for his/her own behavior by obeying traffic laws, being attentive to his/her surroundings, and only crossing when and where it is appropriate.

- Pedestrians should not cross the roadway when there is a red signal at a crosswalk.
- Pedestrians should not begin crossing the street if the Don't Walk sign is flashing.
- Countdown numbers displayed in pedestrian signals indicate the time remaining until the Don't Walk sign is displayed.
- It is legal for pedestrians to cross the street at places other than a croswalk. However, pedestrians DO NOT have the right of way, except at a crosswalk, marked or unmarked. Therefore: Pedestrians should not leave the sidewalk or safe walking area and enter the roadway in a manner that makes it impossible for the motorist to stop. Pedestrians must yield to motorists when NOT within a marked or unmarked crosswalk. Pedestrians are responsible for their safety and should exercise caution when crossing roads.
- If pedestrians are in the crosswalk when the signal changes to red, or the pedestrian signal changes to flashing Don't Walk, they still have the right of way to finish their crossing.
- At crosswalks with pedestrian buttons that activate Walk signals, pedestrians may still legally cross if the traffic signal is green for that direction, even if no one has activated the Walk signal.

For further information: NJ Bicycle & Pedestrian Resource Center

http://njbikeped.org/whats-the-law-anyway-a-quick-guide-to-new-jersey-bicycle-andpedestrian-laws-2012/

### Leading Pedestrian Interval

- A Leading Pedestrian Interval (LPI) typically gives pedestrians a 3–7 second head start when entering an intersection with a corresponding green signal in the same direction of travel.
- LPIs enhance the visibility of pedestrians in the intersection and reinforce their right-ofway over turning vehicles, especially in locations with a history of conflict.
- LPIs have been shown to reduce pedestrian-vehicle collisions as much as 60% at treated intersections.
- LPIs are used at intersections where heavy turning traffic comes into conflict with crossing pedestrians during the permissive phase of the signal cycle. LPIs are typically applied where both pedestrian volumes and turning volumes are high enough to warrant an additional dedicated interval for pedestrian-only traffic.



#### WHAT DOES THIS MEAN?

- A Leading Pedestrian Interval, or LPI, is a delay in the corresponding green signal at an intersection. The purpose is to give pedestrians a 3-7 second head start to proceed into the crosswalk. They are especially helpful at intersections that have a lot of turning traffic.
- Pressing the pedestrian signal button often gives pedestrians a longer time to safely cross.

For further information: NACTO Urban Street Design Guide https://nacto.org/publication/urban-street-design-guide/intersection-designelements/traffic-signals/leading-pedestrian-interval/

# Signal Coordination

This measure involves timing the phasing of adjacent traffic signals along a corridor to control the speeds of motor vehicles. For example, the sequence of green signal cycles can be timed to speeds of 20 or 25 miles per hour.

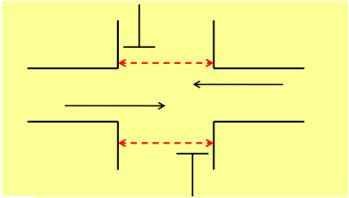
#### WHAT DOES THIS MEAN?

- Signal Coordination occurs when a group of two or more traffic signals are working together so that drivers moving through the group will make the least number of stops possible.
- However, it can also be manipulated to slow traffic and give ample time for pedestrians to cross crosswalks.

For further information: USDOT/Pedestrian and Bicycle Information Center http://www.pedbikeinfo.org/planning/facilities crossings pedsignals.cfm

# **Concurrent Phasing**

The pedestrian signal activates simultaneously with the signal for parallel vehicles, permitting motorists to turn left or right across pedestrians' paths after yielding to pedestrians.



- Concurrent Phasing allows pedestrians to cross in the same direction and at the same time parallel as motorists receiving a green signal.
- Motorists must be cognizant that pedestrians may be crossing the street when motorists are trying to turn left or right.

For further information: Massachusetts DOT https://pdfs.semanticscholar.org/presentation/35de/39fdf0f6bb4bb6987323a4bbb85b5767 9523.pdf

### **Exclusive Pedestrian Phasing**

- When vehicles are stopped on all approaches to an intersection, and pedestrians are given a WALK indication, the phasing is referred to as "exclusive" or as a "pedestrian scramble." Intersections with pedestrian scramble phases often feature pedestrian crossing markings which indicate pedestrians may walk diagonally across the intersection.
- Exclusive pedestrian timing has reduced pedestrian crashes by 50 percent in some downtown locations with heavy pedestrian volumes and low vehicle speeds and volumes.



#### WHAT DOES THIS MEAN?

Exclusive Phasing means traffic is stopped on all approaches to allow pedestrians to cross any section of the intersection. This has reduced crashes by 50% in downtown locations with heavy pedestrian volume and low vehicle speeds.

Motorists must remain stopped until the signals change.

For further information: USDOT/Pedestrian and Bicycle Information Center http://www.pedbikeinfo.org/planning/facilities crossings pedsignals.cfm

### Split Phasing

When used in the context of pedestrian crossing, this term means the vehicular green phase is split into two parts: (1) pedestrians receive protected walk time while vehicles travelling parallel are given a green signal to go straight but not turn, and (2) the pedestrian DON'T WALK is activated when vehicles are permitted to turn. A study by the New York Metropolitan Transportation Council suggests the split phasing significantly reduces pedestrian conflicts, crashes, and illegal pedestrian crossings.

#### WHAT DOES THIS MEAN?

- Split phasing divides the green light of a traffic signal into separate phases: one for turning vehicles and another for pedestrians. Motorists must watch out for pedestrians when turning.
- Again, if pedestrians are in the crosswalk when the signal changes to red, or the pedestrian signal shanges to flashing Don't Walk, they still have the right of way to finish their crossing.

For further information: USDOT/Pedestrian and Bicycle Information Center http://www.pedbikeinfo.org/planning/facilities crossings pedsignals.cfm

# Hot Response

- A hot response detector activates a pedestrian signal immediately upon actuation, after providing at least the minimum allowable green time for conflicting vehicles.
- Hot response signal phasing is desirable where pedestrian crossing volumes are significant or high pedestrian compliance is desirable. They may be particularly appropriate at midblock crossing locations where the distance to other signalized crossings is significant.
- Hot response signals also help reduce unnecessary delay for both pedestrians and vehicles at locations where pedestrians will typically use the pushbutton, but cross before the pedestrian signal is active.



#### WHAT DOES THIS MEAN?

- A hot response detector activates the pedestrian walk signal but the signal will not change immediately. The signal is timed to allow motorists to continue for a period. Therefore, pedestrians must still wait until the signal changes to Walk and traffic in the opposing direction has stopped.
- Motorists must stop when the light changes red even if it has only been green for a short while before.
- HAWK signals (High Intensity Activated Crosswalk, or Pedestrian Hybrid Beacon) are activated by pedestrian buttons at marked crosswalks. They display red signals to oncoming traffic and must be obeyd as any other red signal.
- Some pedestrian buttons activate flashing yellow lights, either on signs or embedded in the crosswalk. Those lights must be obeyed by motorists as Yield signals.
- In a few New Jersey municipalities, automated pedestrian detection signals have been introduced. These signals automatically detect the presence of pedestrians ready to cross and change the traffic signal without pressing a button.

For further information: USDOT/PedSafe

http://www.pedbikesafe.org/pedsafe/countermeasures\_detail.cfm?CM\_NUM=52

## Left turn phasing

The protected left turn phase provides a green arrow for left turning vehicles while stopping both oncoming traffic and parallel pedestrian crossings to eliminate conflicts. Protected left turn phasing is particularly appropriate for locations with relatively high left turn volumes.



Use of concurrent, protected/permissive, or protected left turn phasing provide increasing levels of conflict reduction between vehicles and pedestrians using a parallel crossing.

#### WHAT DOES THIS MEAN?

- Left turn phasing gives a green arrow for left turning vehicles while stopping both oncoming traffic and pedestrians from crossing.
- It should be noted that pedestrians may try to cross because they see the oncoming red signal ahead.
- Motorists must be cautious and anticipate that pedestrians may try to walk.

For further information: USDOT/PedSafe

http://pedbikesafe.org/PEDSAFE/countermeasures\_detail.cfm?CM\_NUM=51

# Runners/Walkers in the Road

- (39:4-34) Pedestrians are required to use sidewalks where they are available. When there is no sidewalk, pedestrians must travel on the left side of the road so they are able to see oncoming traffic.
- A sidewalk is defined as "that portion of a highway intended for the use of pedestrians, between the curb line or the lateral line of a shoulder, or if none, the lateral line of the roadway and the adjacent right-ofway line." (39:1-1)
- Drivers are required to exercise due care for the safety of any pedestrian upon a roadway. (39:4-36.5)



• However, pedestrians must yield the right-of-way to motor vehicles when walking in the roadway, except at intersections.

#### WHAT DOES THIS MEAN?

- Runners and walkers should stay on the sidewalk or on a path; however, when there is no sidewalk available, they should always run/walk FACING traffic.
- Motorists must respect a runner or walker in the road. They should understand that if a person is running or walking in the road it is likely there is no sidewalk, or the sidewalk is difficult to access and so the motorist needs to drive cautiously.
- Drivers need to use due care and respect all pedestrians upon a roadway, especially around children and pedestrians of all abilities, for example those using motorized mobility devices who may be forced into a roadway due to maintenance issues or snow removal.

For further information: NJ Bicycle & Pedestrian Resource Center http://njbikeped.org/whats-the-law-anyway-a-quick-guide-to-new-jersey-bicycle-andpedestrian-laws-2012/

NJ Department of Transportation http://www.state.nj.us/transportation/commuter/pedsafety/ responsibility.shtm

# Blind persons - Americans with Disabilities Act (ADA)

• Any blind person using as a guide a walking cane, predominantly white or metallic in color, or using as a guide a seeing-eye dog or other dog trained as a dog guide, equipped with a "U"-shaped harness, and any seeing-eye dog instructor shall have the right-of-way in crossing any highway or any intersection, and all drivers shall yield right-of-way to such blind person although traffic on said highway or intersection thereof is controlled by traffic signals. (39:4-37)

Failure to obey this law carries a fine of not more than \$50 and/or imprisonment for a term not exceeding 15 days.



#### **WHAT DOES THIS MEAN?**

- Blind pedestrians and guide dog instructors have the right of way crossing highways and intersections even when traffic on that roadway may be controlled by traffic signals.
- This does not apply when traffic is being directed by a traffic or police officer.

NJ Department of Transportation

http://www.state.nj.us/transportation/commuter/pedsafety/ responsibility.shtm

# Crossing Guards and School Zones



- The driving speed is 25 mph when passing through a school zone during recess or when children are clearly visible from the roadway, or when children are entering or leaving school. (C39:4-98)
- Drivers must obey the STOP paddle of a school crossing guard. (39:4-215)
- Drivers who fail to comply with this law can be fined no less than \$150.

#### WHAT DOES THIS MEAN?

- When driving through a school zone, drivers must slow down to 25mph when children are present.
- When a crossing guard holds up a STOP paddle in the roadway it is an official sign under the law and drivers must come to a full stop and stay stopped until all the pedestrians have crossed and the crossing guard removes the sign.
- If pedestrians have crossed under the direction of a crossing guard and are in the crosswalk when the signal changes to red, or the pedestrian signal changes to Don't Walk, they still have the right of way to finish their crossing

For further information: NJ Crossing Guards http://www.njcrossingguards.org/wp-content/uploads/2014/08/New-Jersey-Laws-and-Legislation1.pdf

# Driveway Right of Way

Drivers emerging from an alley, driveway, garage, or private road must stop the vehicle immediately prior to driving upon a sidewalk and shall proceed to enter the sidewalk only

- after yielding the right of way to a pedestrian on the sidewalk if the pedestrian is so close as to constitute an immediate hazard. (39:4-66)
- When a driver is about to enter an alley, driveway, garage, or private road from a highway and finds it necessary to drive upon a sidewalk, he must first yield the right of way to all pedestrians on the sidewalk, if the pedestrian is so close as to constitute an immediate hazard. (39:4-66.1)



- Drivers entering or leaving a driveway, garage, alley or private road that crosses a sidewalk must exercise caution when crossing the sidewalk.
- Pedestrians in the sidewalk or about to cross the driveway/private road have the right of way.
- Drivers must stop before they enter the sidewalk when a pedestrian is close enough to be at risk. The driver should only proceed after giving right of way to the crossing pedestrian.

For further information: NJ Department of Transportation http://www.state.nj.us/transportation/commuter/pedsafety/ responsibility.shtm

# **Bicycle Infrastructure**

# Sharing The Road

Bicyclists in New Jersey have the right to use a full lane except on highways (e.g. Interstates). A road marked "Share the Road," a marked bicycle path, or an unmarked road are all treated the same under the law.

Some roads have bike lanes. Some have shoulders. Bicyclists may ride in the bike lanes or shoulders, if they choose. They are *not* required to use them. Most bike lanes and all shoulders are at the rightmost portion of the street, so road hazards could cause a bicyclist to choose to ride in the roadway.

Motor vehicle drivers should be aware of the different ways in which bicyclists may use the road.

- Shared lane markings or "sharrows" (derived from "shared" and "arrows") are pavement markings used to mark a designated bike route. Placed in the travel lane, they encourage bicyclists to ride in a safe position outside of the door zone (where driver side doors of parked cars open). Shared lane markings are also referred to as green shared lane markings.
- Motor vehicles are permitted to drive in travel lanes where shared lane markings are present. Bicyclists may be traveling in the same lane; therefore, motorists must travel behind them until it is safe to pass.
- Shared lane markings include a bicycle symbol and a double chevron indicating the direction of travel. They do not designate any part of the roadway as either exclusive to motorists or bicyclists. Rather, the symbols highlight the fact that the travel lane is shared.



- Roads marked with a sharrow indicate that motorists can expect to see bicycle riders in the lane.
- Motorists must share the road with bicycle riders when they see a painted sharrow. They should understand that the lane is too narrow for a vehicle to pass a bicyclist safely.
- Bicycle riders should travel in the direction the sharrow is pointing. Note, however, that a bicyclist may take the full lane whether or not a sharrow is present.
- For more information, go to, "Why a Bike Rider Might Take the Lane" in the Non-Infrastructure section.

For further information: Manual on Uniform Traffic Devices (MUTCD) https://mutcd.fhwa.dot.gov/htm/2009/part9/part9b.htm

#### NACTO Urban Design Guide

https://nacto.org/publication/urban-bikeway-design-guide/bikeway-signingmarking/shared-lane-markings/

#### Bike Lanes

A bicycle lane is a portion of a street adjacent to the travel lane that is reserved for bicyclists. Bicycle lanes are typically on the right side of the road and are designated with pavement markings with arrows that direct bicyclists in the direction of travel. Bike lane signs are typically also placed alongside the road. A bicyclist should always travel in the same



direction of traffic when using a bike lane, unless the pavement markings in a bike lane indicate you may travel against traffic.

Drivers are not permitted to park or drive in a bike lane. However, when making a right turn, they must yield to any bicycle traffic and then merge into the bike lane prior to making the turn. A properly designed intersection will always place the thru bicycle traffic to the left of a right turn lane. As a bike lane approaches an intersection or bus stop, the white lines separating it from the travel lane may be dashed to indicate a shared space between thru bicyclists and turning motorists.

#### WHAT DOES THIS MEAN?

Bike lanes are a part of the road next to the travel lane and are reserved for bicycles. They are typically on the right side of the road and motorists are not permitted to park or drive in them.

For further information: NACTO Urban Bikeway Design Guide https://nacto.org/publication/urban-bikeway-design-guide/bike-lanes/conventional-bikelanes/

### **Advisory Bike Lanes**

An advisory bike lane is similar to a regular bike lane, but is used on low volume streets that are narrow. It is marked with a solid white line on the right (next to parked cars) and a dotted line to the left. These markings give bicyclists the space to ride, but are also available to motorists if space is needed to pass oncoming traffic. In order for motor vehicle drivers to safely meet an oncoming motorist, they are allowed to merge into the bike lane when it is an advisory bike lane. As a result, bicyclists should be more prepared for a motorist to enter the advisory bike lane than they would a typical bike lane.

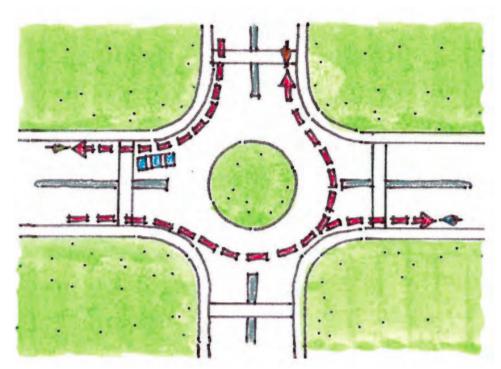


- Advisory bike lanes are marked with a solid line on the right (next to parked cars) and a dotted line on the left (next to traffic).
- These lanes give bicycle riders a place to ride, and the flexibility for drivers to have more space when needed to pass oncoming traffic.
- Bicyclists must be aware that motorists may come into the bicycle lane in these circumstances.
- Motorists need to be aware that they may need to share the road with a bicycle rider.

For further information: National Association of City Transportation Officials https://nacto.org/publication/urban-bikeway-design-guide/bike-lanes/

### Roundabouts

Modern roundabouts are a particular type of traffic circle. They operate on the "yield on entry" rule, meaning traffic about to enter the roundabout must yield to the traffic in the roundabout. These facilities have signage to indicate this. If a bicyclist feels uncomfortable negotiating a traffic circle or roundabout and crosswalks are provided, they can dismount and walk their bicycle through the crosswalks to get around the circle or roundabout.



- Roundabouts are traffic circles where road traffic flows fairly continuously in one direction around a central island.
- They operate on the "yield to entry rule" meaning that those outside of the circle must yield to those inside the circle. This is true for vehicles and bicycles.
- Motorists should not try to pass bicyclists in a roundabout and instead should give room for the bike rider to "take the road."
- Bicyclists should exercise caution when entering a roundabout and take the ane only when safe.

For further information: NJ Bicycling Manual

https://www.state.nj.us/transportation/commuter/bike/pdf/bicyclingmanual.pdf

# Separated Bike Lane (or Protected Bikeway or Cycletracks)

Separated bike lanes provide increased safety and comfort for bicyclists beyond more traditional facilities like bicycle routes or bicycle lanes. Separated bikeways are most appropriate on streets where higher traffic volumes and speeds warrant greater separation. By separating bicyclists from motor traffic, "protected" or physically separated bike lanes can offer a higher level of comfort than conventional bike lanes and are attractive to a wider spectrum



- of the public. Intersections and approaches must be carefully designed to promote safety and facilitate left-turns for bicyclists from the primary corridor to the cross street.
- Separation types range from simple, painted buffers and flexible delineators, to more substantial separation measures including raised curbs, grade separation, bollards, planters, and parking lanes. These options range in feasibility due to roadway characteristics, available space, and cost. In some cases, it may be possible to provide additional space in areas where pedestrians and bicyclists may interact, such as the parking buffer, or loading zones, or extra bike lane width for cyclists to pass one another.

- Separated bike lanes can range from simple flexible delineators to more substantial barriers like planters, curbs, or even parking lanes.
- Separated bike lanes offer increased safety by separating bicycle riders from vehicles. Not only is it safer for motorists and bicyclists, but it also offers a sense of comfort, making bicycling more enjoyable and fun.
- Motorists are not allowed to drive their vehicles on separated bike lanes.

For further information: Alta Planning + Design https://altaplanning.com/separated-bike-lanes/

Metropolitan Washington Council of Governments

https://www.mwcog.org/newsroom/2016/07/26/workshop-highlights-best-practices-indesigning-separated-bike-lanes-bicycling-traffic-safety/

### **Buffered Bike Lane**

- Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.
- Buffered bike lanes provide greater distance between motor vehicles and bicycles.
- They provide space for bicyclists to pass another bicyclist without encroaching into the adjacent motor vehicle travel lane.



- A buffer between parked cards and the bike lane allows bicyclists to ride outside of the door zone.
- They provide a greater space for bicycling without making the bike lane appear so wide that it might be mistaken for a travel lane or a parking lane. Buffered bike lanes

encourage bicycling by contributing to the perception of safety among users of the bicycle network and appeal to a wider cross-section of bicycle users.

#### WHAT DOES THIS MEAN?

- Buffered bike lanes are regular bike lines that have been combined with a buffer space separating the bicycle lane from the adjacent vehicle travel lane and/or parking lane with painted lines.
- Buffered bike lanes have many benefits like encouraging bicyclists to ride outside the "door zone" and they provide more space for bicyclists to pass one another safely without riding into traffic.
- Motorists should not drive on the buffered painted lines in order to pass other drivers or bicyclists.

For further information: NACTO/Urban Bikeway Design Guide https://nacto.org/publication/urban-bikeway-design-guide/bike-lanes/buffered-bike-lanes

# Shared use pathways

- Shared use paths provide off-road connections that can be used for recreation and commuting. These paths are often found along waterways, abandoned or active railroad tracks, utility rights-of-way, limited access highways, or within parks and open space
- Along high-speed, high-volume roads, sidepaths might be safer and more desirable than sidewalks or bike lanes but paths immediately adjacent to roadways may cross numerous intersecting roads and driveways that create hazards for path users.
- Sidepaths might also be used when existing roads provide the only rights-of-way available. Paths immediately adjacent to roadways may cross numerous intersecting roads and driveways that create hazards and other problems for path users.
- A separate shared use path provides transportation links, recreation areas, and outdoor fitness opportunities for a variety of users, including bicyclists and pedestrians.



- Shared use pathways are paths designed for bicyclists, pedestrians, skateboarders, roller bladers and others to use at the same time.
- Shared use paths are off-road connections and offer a safe and fun way to commute and for recreation and fitness. Cars are not allowed on shared use pathways

For further information: Pedestrian and Bicycle Information Center http://www.pedbikeinfo.org/planning/facilities ped paths.cfm http://www.pedbikeinfo.org/data/faq details.cfm?id=3920

### **Contraflow Bike Lanes**

- Bicyclists are expected to follow established rules-of-the-road. A particular example is riding in the same direction as motor vehicle traffic. However, there are certain situations where the placement of a contraflow bike lane, or a bicycle lane counter to the normal flow of vehicular traffic, may increase safety or improve access for bicyclists.
- Contraflow bike lanes, when designated on a street that has one-



- broader bicycle network and access to destinations, thereby reducing out-of-the-way detours and the desire for bicyclists to ride the opposite way.
- The contraflow bike lane is a specialized bicycle facility that can be used in particular situations and is intended to reduce the number of conflicts between bicycles and motor vehicles and improve access for bicyclists.
- Contraflow lanes may also alleviate riding on a high-speed, high-volume route. However, there are safety concerns associated with contraflow bicycle riding, as this places bicycles in a position where motorists do not expect to see them.
- Contraflow bike lanes create specialized on-street facilities for bicyclists that can be used to enhance bike connectivity. They can improve safety and bicyclist behavior by reducing unexpected out-of-direction riding and the wrong-way riding that may occur where the most direct or comfortable route is a one-way street. This treatment can also be used to provide an alternative to riding on a high-speed, high-volume route.

- Contraflow bike lanes are bike lanes that run against vehicular traffic flow. They can improve safety and bicyclist behavior by reducing the wrong-way riding that might occur when the most direct or convenient route is a one-way street.
- They can also help connect other bike lanes and thus make bicycle commuting more efficient.
- Motorists need to exercise caution and be careful and make sure they are offering a safe distance to avoid a head on collision with bicyclists.

For further information: USDOT/BikeSafe

http://pedbikesafe.org/bikesafe/countermeasures\_detail.cfm?CM\_NUM=15

# Share the Road Sign

This sign is used in situations where there is a need to warn motorists to watch for bicyclists traveling along the roadway.

#### WHAT DOES THIS MEAN?

• Share The Road signs were originally designed to signify that no one road user (motorist, pedestrian, or bicyclist) had the sole right to the road; however, the signs have not been effective and therefore some states are transitioning to the "Bike May Use Full Lane" sign.



- Motorists must expect bicyclists using the lane where the "Share the Road" signs exist.
- Whether or not this sign is posted, all roads in New Jersey except Interstates are open to use by bicyclists, therefore motorists must share the road. Bicyclists must follow the rules of the road at all times.

For further information: Manual on Uniform Traffic Control Devices https://mutcd.fhwa.dot.gov/htm/2009/part9/part9b.htm

# Bike May Use Full Lane Sign

- Several towns in New Jersey use this sign as an alternative to the "Share the Road" sign.
- The Bicycles May Use Full Lane Sign, also referred to as BMUFL or R4-11, first officially specified in Chapter 9B of the 2009 Manual on Uniform Traffic Control *Devices*, is a traffic sign used in the United States to:
  - designate roads with lanes that are too narrow to be safely shared side-by-side by a bicycle and a motor vehicle to indicate that bicyclists may occupy the full lane to discourage unsafe passing
  - encourage bicyclists to use the full lane to discourage unsafe passing
  - encourage motorists to change lanes to pass bicyclists
  - warn motorists that bicyclists may be using the full lane



- The "Bicycles May Use Full Lane" sign is used to designate roads that are too narrow to be shared safely between a vehicle and bicycle.
- The sign warns motorists that a bicycle may be using the full lane and therefore the motorist is encouraged to change lanes to pass bicyclists.
- In places where the road is too narrow for side-by-side sharing by bicyclists and motorists, bicyclists are allowed to take the full lane even if there is no R4-11 sign.

For further information: Manual on Uniform Traffic Control Devices https://mutcd.fhwa.dot.gov/htm/2009/part9/part9b.htm

#### Bike Box

- A bike box is a designated area at the head of a traffic lane and at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during a red signal.
- Benefits of a bike box include:
  - o Increases visibility of bicyclists.
  - Reduces signal delay for bicyclists.
  - Facilitates bicyclist's left turn positioning at intersections during a red signal. This only applies to bike boxes that extend across the entire intersection.
  - Facilitates the transition from a right-side bike lane to a left-side bike lane during red signal. This only applies to bike boxes that extend across the entire intersection.

- Helps prevent "right-hook" conflicts with turning vehicles at the start of the green signal.
- o Provides priority for bicyclists at signalized bicycle boulevard crossings of major
- o Groups bicyclists together to clear an intersection quickly, minimizing impediment to transit or other traffic.
- Pedestrians benefit from reduced vehicle encroachment into the crosswalk since only bicyclists are allowed inside the box.



- A Bike Box is a painted box at the head of a traffic lane and at an intersection. It provides bicyclists with a safe place to be visible ahead of the traffic queue during a red signal.
- Bike boxes can help prevent "right hook" crashes where motorists turn right and collide with upcoming bicyclists going straight.
- Motorists must stop BEFORE the bike box and are not allowed to park inside them.

For further information: Urban Bikeway Design Guide https://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/bikeboxes/

### **Green Bike Lanes**

- Green bike lanes are pavement markings often used to highlight locations where motorists merge or turn across a bike lane.
- To draw attention to and increase safety at these locations, bike lanes are painted green to alert motorists that they must yield to bicyclists traveling straight.



#### **WHAT DOES THIS MEAN?**

- A painted green lane is a marking on the pavement to remind motorists to be cautious and aware that bicyclists will be riding there.
- This is especially useful in locations where motorists have to merge across the bike lane to make a turn.

# **Non-Infrastructure**

# Vehicular Cycling

Vehicular cycling is the concept or belief that as long as a bicyclist acts like a driver of a vehicle, they will be safe. In Effective Cycling, John Forester introduced what he calls "the five basic principles of cycling in traffic."

- Ride on the road, with the direction of traffic.
- Yield to crossing traffic at junctions with larger roads.
- Yield to traffic in any lane you are moving to, or when you are moving laterally on the
- Position yourself appropriately at junctions when turning near the curb when turning off the road on the side you are travelling on, near the center line when turning across the other side of the road, and in the center when continuing straight on.
- Ride in a part of the road appropriate to your speed; typically, faster traffic is near the centerline.



# Why a Bicyclist Might Take the Lane

Bicyclists often take the full travel lane for a variety of reasons. A sharrow or R4-11 sign ("Bike May Use Full Lane" sign) is not required for a bicyclist to take the lane.

There are several reasons a bicyclist may wish to take the lane, including:

- The travel lane is often the safest place to be
- Riding on sidewalks is sometimes illegal (depending on the municipality) and often unsafe
- To prevent being buzzed or side swiped
- In order to trigger the light or signal to change.
- To prepare for a left-hand turn
- If there is debris on the side of the road
- If the lane is too narrow (less than 12') to share
- To be more visible and increase motorist awareness
- To avoid the door zone in which car doors may open
- To get through a narrow tunnel, narrow road, or narrow bridge
- In a roundabout



# Safe passing

Here are some important points for motor vehicle drivers when passing bicyclists:

- Treat bicyclists as slow-moving vehicles
- If there is oncoming traffic, slow down and wait to pass until traffic clears
- Make sure you have enough room to pass safely to the left of the bicyclist. Pass slowly. However, exercise extreme caution if entering the oncoming traffic lane.
- Return to the lane when the bicyclist is in your rearview mirror
- If you cannot pass at safe distance, slow down and proceed with caution
- Check for bicyclists in your blind spots

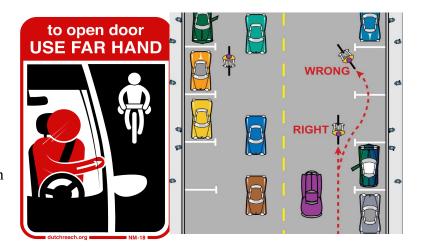
- When driving a larger vehicle, allow extra room for mirrors, extended wheel wells, trailers, etc.
- Large profile vehicles can create wind blasts which throw bicyclists off balance, so pass slowly.



### Door Zone

The door zone is the space that an open car door extends when parked at a curb. To avoid door zone crashes:

- Motorists should use the "Dutch reach"- use their right hand to open their door so that they have to turn and can look for approaching cyclists.
- Bicyclists should ride in straight line, not weave in and out of parking spots. When they pop out, drivers don't expect them.



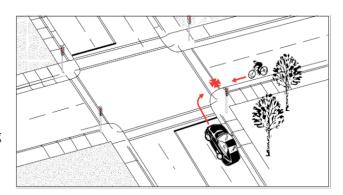
# Passing in Unsafe Situations

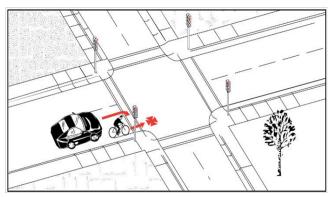
A crest of a hill or a blind curve can be a dangerous place to pass a bicyclist. Therefore, motor vehicle drivers should wait to come over the hill or around the curve fully before attempting to pass safely.



# Car Turning Right at Intersections

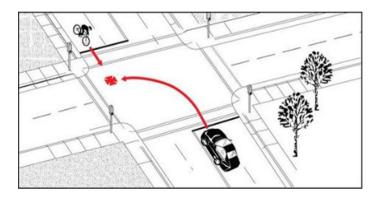
- Bicyclists may take the lane to avoid being hit by drivers making right hand turns.
- Motorists should check for bicyclists approaching from behind, including bicyclists riding with the traffic on the shoulder of the road.
- Drivers should slow down and wait for the bicyclist to move through the intersection before turning
- Motorists should also check to make sure a bicyclist is not riding against traffic on the right side





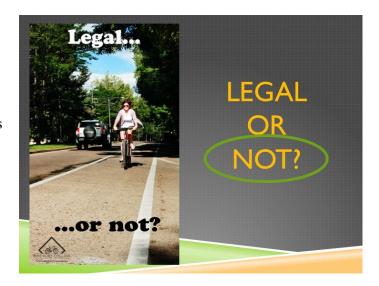
# Left Turns with Oncoming **Bicyclists**

- If there is oncoming traffic, slow down, stop and wait until traffic clears, including bicyclists
- Watch for oncoming bicyclists as it may be difficult to judge their speed and distance
- Watch for oncoming bicyclists in the "shadow" of a vehicle



## Bicycle Riding Against Traffic

- It is not legal for a bicyclist to ride against the flow of traffic on the road unless infrastructure indicates otherwise (for example, in a Contraflow Bike Lane)
- Therefore, unless otherwise indicated by signage, bicyclists must ride in the same direction as motor vehicle drivers.



### Bicycle Riding on Sidewalks

It is legal in New Jersey for bicycle riders to use the sidewalk, but some municipalities have banned it throughout their jurisdiction or on some roads. Sidewalks, unlike roadways, do not have directionality, therefore bicycle riders may be riding on the sidewalk against the flow of traffic. Motor vehicle drivers should be alert to bicycle riders on the sidewalk and aware that they may enter the roadway.

## Be Aware of Mistakes Bike Riders May Make

Motor vehicle drivers should be aware of these common mistakes made by bicycle riders:

- Bicycle riding against traffic
- Failure to signal with their hands
- Running stop sign or red light
- Wearing headphones, preventing them from hearing moving vehicles and horns.

# Pedaling on Crosswalks and Sidewalks

- While riding a bicycle on a sidewalk is not prohibited by New Jersey statutes, some municipalities have passed ordinances prohibiting bicycle traffic on certain sidewalks. This prohibition is usually posted.
- Riding on sidewalks can cause conflicts with pedestrians and, like wrong way riding, can lead to crashes since it places bicyclists in situations where others do not expect them.



### **Group Bicycle Riding**

- Pass groups of bicycle riders only when it is clear
- Tap the horn and avoid blasting it so bicyclists are not startled.
- Bicyclists can ride two abreast when they are not impeding traffic and/or when they are riding on paths or parts of the roadway that are intended for the exclusive use of bicycles.



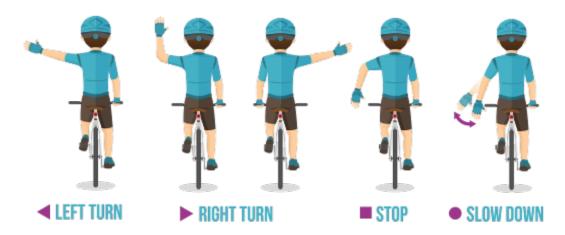
### Honking

- Cyclists can easily be startled and swerve into traffic by vehicle horns designed to be loud enough to be heard inside other vehicles.
- Drivers should refrain from honking at bicyclists when passing, particularly when no imminent danger of a collision exists.



### Bicycle Rider Hand Signals

- Bicyclists use hand signals to indicate to other road users in advance that they are going to change lanes and turn. Since bicycles do not have brake lights, hand signals indicate that they are slowing down or stopping.
- Motor vehicles drivers should be watching for these signals particularly when driving behind a bicyclist or when a bicyclist is approaching from the opposite direction or from a side street.



### Lights and Bells

By law, bicycles must be equipped with lights and bells or other sound device. The law says:

- 39:4-10 Lights on Bicycles
  - When in use at nighttime every bicycle shall be equipped with: 1) A front headlamp emitting a white light visible from a distance of at least 500 feet to the front; 2) A rear lamp emitting a red light visible from a distance of at least 500 feet to the rear; 3) In addition to the red lamp a red reflector may be mounted on the rear.
- 39:4-11 Audible Signal
  - A bicycle must be equipped with a bell or other audible device that can be heard at least 100 feet away, but not a siren or whistle.

## Sharing the Road with Skateboarders, Inline Skaters and other Persons on Wheels

- The operator of each of these modes has the same rights and responsibilities as a driver of a motor vehicle. In general, respond to other bicyclists, skateboarders, scooters and inline skaters as you would when you share the road with motor vehicles.
- Low speed electric bicycles (ebikes) and electric scooters are now legal in New Jersey. Some skateboards are also motorized.
- Bicyclists should be mindful of this because the speed of electric bicycles and scooters may change quickly.



### Other Situations

- Distracted driving such as texting or talking on the phone compromises safe driving.
- Sun glare and fog can interfere with and impair a driver's vision.
- Illegal courtesies may do more harm than good.
  - An illegal courtesy is when a motorist is trying to be courteous, but does something unexpected/illegal, such as stopping in traffic to allow a cyclist turning left. Motorists are encouraged not to give illegal courtesies and bicyclists are encouraged not to accept illegal courtesies, as they can cause confusion and lead to conflicts.
- Avoid parking motor vehicles in bike lanes
- Children on bicyles require strict attention. Eighty percent of crashes involving a motorist and a child on a bike are the fault of the child. Children may not know the rules of the road, so slow down and pay extra attention when driving in areas where children can be expected (e.g., school zones, neighborhoods, around parks).



# What to Teach Bicyclists

- Control or "take the lane" when appropriate
- Be visible and predictable
- Ride on the right
- Stop at all stop signs and lights
- Obey first-come, first-served rule at intersections
- Yield when changing lanes
- Choose correct intersection positioning

## **About New Jersey Bike & Walk Coalition**

Established in 2009 as The New Jersey Bicycle Coalition, the New Jersey Bike & Walk Coalition is the only statewide advocacy organization for bicyclists and pedestrians. Bicyclists, walkers and all other vulnerable road users share common challenges and opportunities. These road users face an increasing threat from distracted drivers and many of our streets are inadequately designed for biking and walking. There is a strong need for more laws requiring motorists to give vulnerable road users a margin of safety when passing them on the road.

The members of NJBWC include bicyclists and walkers from Ringwood to Cape May. The organization partners with clubs, advocacy groups, and local, regional, and state agencies. It is supported by a growing list of sponsors who share its goals. It is recognized by the League of American Bicyclists as the state bicycle and pedestrian advocacy organization for New Jersey. In 2018, the NJBWC received the national Advocacy Organization of the Year award from the LAB.

The NJBWC is a registered 501(c)(3) public charity. It is dedicated to:

PROTECTING the rights and safety of New Jersey bicyclists and walkers. PROMOTING bicycling and walking for fun, fitness, and transportation. EDUCATING bicyclists, walkers, and drivers about our rights and responsibilities. CONNECTING our communities with a smarter transportation system.

For questions or comments, contact NJBWC at info@njbwc.org

## **Acknowledgements**

The authors wish to thank the New Jersey Division of Highway Traffic Safety for their support of this project, and the Bike Friendly Driver Program of Fort Collins, Colorado.

### **Photo Credits**

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Concurrent Phasing Photo by Massachusetts Department of Transportation

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Rider Taking the Lane Photo by Bicycle Friendly Driver Program of Fort Collins, CO

Safe Passing Photo by <u>Bicycle Friendly Driver Program of Fort Collins</u>, CO

Door Zone Photo by Bicycle Friendly Driver Program of Fort Collins, CO

Passing in Unsafe Situations Photo by <u>Bike WA</u>

Car turning right at intersections Bicycle Friendly Driver Program of Fort Collins, CO

Left turns with oncoming riders Bicycle Friendly Driver Program of Fort Collins, CO

Riding Against Traffic Bicycle Friendly Driver Program of Fort Collins, CO

Pedaling on crosswalks and sidewalks Photo by Katherine Hitt and Sacramento Area Bicycle Advocates

Group Riding Photo by Peter Wilborn

Honking at Bike Riders Photo by Bikeyface

Bicycle Rider Hand Signals Photo by Sarah Lauzé

Sharing the Road with Other Wheels Photo by San Francisco Citizen

Children on Bikes Photo by Rhode Island Bicycle Coalition

# **Appendix A: Sample Bicycle Friendly Driver Exam**

# **BICYCLE &** PEDESTRIAN SAFETY TRAINING EXAM



(Circle the best answer to each question)

Name: _	Date:	
Business:	Score: _	/14

#### 1. Share the Road means:

- A. All users have the right to use the road and the responsibility to follow the rules.
- B. Bicycles are considered vehicles by law and bicyclists are required to follow all the rules.
- C. Bicyclists fare best when they act and are treated as drivers of vehicles.
- D. All of the above.

#### 2. It is legal for bicyclists to ride against traffic in the bike lane.

- A. Only when it is perceived as the safest option by the bicyclist.
- B. Bicyclists can ride anywhere on the road as long as they do not impede traffic.
- C. It is not legal for a bicyclist to ride against the flow of traffic on the road unless infrastructure indicates otherwise.

#### 3. Bicyclists can ride two abreast when:

- A. The bicyclists are not impeding traffic and/or when they are riding on paths or parts of the roadway that are intended for the exclusive use of bicycles.
- B. Bicyclists are not allowed to ride two abreast. It is illegal and they must ride single file so as not to impede traffic.
- C. The bicyclists are on a group ride with friends and want to chat with each other.

#### 4. Motorists must give a minimum of three feet of space when passing a bicyclist:

- A. Sometimes motorists only need to give three feet of space when passing a bicyclist when traffic volumes allow.
- B. Always motorists must give at least three feet of space when passing a bicyclist or they must wait until they have a safe opportunity to pass while allowing for the three feet.
- C. Never Motorists can pass with any amount of distance between their vehicle and the bicyclist.

#### 5. Roads marked with a 'sharrow', signify that...

- A. Motorists can expect to see bicyclists "taking the lane."
- B. The lane is too narrow for a bicycle and a motor vehicle to share the road legally/safely.
- C. Bicyclists should travel in the direction that the sharrow is pointing.
- D. All of the above.

#### 6. It is illegal for a motorist to cross a double yellow line when passing a bicyclist.

- A. True
- B. False

#### 7. When approaching an intersection, a motorist making a left turn should:

- A. Check for oncoming traffic. Proceed only when there are no on-coming motor vehicles.
- B. Check for oncoming vehicles, including bicyclists who may be difficult to see if they are traveling next to a larger vehicle. Proceed only when clear of all vehicles.
- C. Try to turn quickly, between vehicles and bicyclists.

### 8. When driving a motor vehicle on a road with a double yellow center line that is too narrow to pass a bicyclist with the minimum three foot requirement, you should:

- A. Pass closer than three feet, as quickly as possible.
- B. Slow down, keeping the bicyclist in front of you, and wait until traffic has cleared and it is safe to pass while allowing three feet of space.
- C. Honk at the bicyclist so they will hurry up and get out of your way.

- 9. You are driving a motor vehicle and a bicyclist is riding in the same direction that you are driving. You are both approaching an intersection and you would like to make a right-hand turn. You should:
- A. Speed up, pass the bicyclist and complete the right turn.
- B. Speed up to get ahead of the bicyclist, put your right turn signal on, and then wait for the bicyclist to pass your vehicle before making your turn.
- C. Slow down, keep the bicyclist in front of you, and turn right after the bicyclist is safely through the intersection.

#### 10. What is the most common type of motor vehicle/bicycle crash in New Jersey?

- A. Right angle (this often happens when a bicyclist is riding against traffic).
- B. An approach turn (also called a left cross when a motor vehicle driver turns left in front of a bicyclist coming in the opposite direction).
- C. Right hook (when a motor vehicle driver overtakes and then turns right in front of a bicyclist).
- D. Rear-end (when a motor vehicle driver crashes into the back of a bicyclist).

#### 11. In which of these situations are bicyclists permitted to "take the lane?"

- A. When making a left hand turn
- B. In a roundabout
- C. To avoid the 'door zone'
- D. To get through a narrow tunnel, narrow road, or narrow bridge
- E. When it is unsafe to remain in the bike lane because of debris or other obstacles
- F. All of the above

#### 12. After passing a bicyclist, when is it safest to return to your lane?

- A. As soon as you can so as to avoid on-coming traffic.
- B. When you can see the bicyclist in your rearview mirror.
- C. When the end of your vehicle is more than 3 feet past the bicyclist.

### 13. Large profile vehicles can create a wind blast. When is this dangerous to bicyclists?

- A. Wind blasts from motor vehicles are only dangerous to bicyclists on windy days.
- B. Wind blasts are only dangerous to bicyclists when caused by a large vehicle (such as a semi-truck) and the vehicle is traveling greater than 50 mph.
- C. Wind blasts are always dangerous as they can knock a bicyclist over causing a crash.
- D. Wind blasts are not dangerous to bicyclists.

#### 14. Cities use green paint on roads to:

- A. Clearly provide guidance for motorists and bicyclists.
- B. Highlight bicycle lanes and bicycle-related infrastructure.
- C. Increase awareness for safely navigating an intersection.
- D. All of the above.

# **Appendix B: Sample Demographic & Program Evaluation Sheets**

# Class/Presentation Demographics Survey

	_/ Class			
Presenter(s	5)			
Company/L	_ocation			
	to better understand the community the please complete this voluntary demo			
	of the following best describes			40-49 years 50-59 years
your bid	cycling habits and comfort level?  I am willing to ride in mixed		f.	60 year & older
a.	traffic with automobiles on		g.	Prefer not to answer
b. c.	almost any type of street.  I am willing to ride in traffic, but I prefer dedicated bicycle lanes/routes and will seek out routes with less traffic, even if the route is longer.  I like bicycling and would like to bicycle more, but I prefer not to ride in traffic and am most comfortable on residential streets or shared-use trails.		b. c. d. e. f. Incom	White Hispanic or Latino Black or African American Asian Other Prefer not to answer Level (Household) Less than \$10,000 \$10,000 to \$24,999
d.	I do not ride a bicycle and am unlikely ever to do so.		d.	\$25,000 to \$49,999 \$50,000 to \$99,999 \$100,000 to \$199,999
k	a. Male b. Female c. Prefer not to answer	6.	f. g. <b>Pleas</b> e	*
	a. 19 years & Under b. 20-29 years			

c. 30-39 years

		(Poor)	1	2	3	4	5	(Excellent)
Wi	nat i	information was miss	ing and	l d/or co	ıld hav	e been	presen	nted more clearly?
	2.	The instructor(s) was	s/were	knowle	dgeabl	le and	helpful:	:
		(Poor)	1	2	3	4	5	(Excellent)
	3.	During a typical wee transportation?	k, how	often o	lo you	ride a l	oicycle :	as a form of
-2 day/wee	k	3-4 days/week		5-6 days	/week		7 days/w	veek N/A
	4.	During a typical wee	k, how	often d	lo you	ride a l	oicycle 1	for <u>recreation</u> ?
-2 day/wee	k	3-4 days/week		5-6 days	/week		7 days/w	veek N/A
lore confide		on roadways?	r <b>esenta</b> t				-	feel about riding your bi
		optional)	ne same	L033 0	ormaciici		ЛС	INIA
	6.	Do you plan to ride y	our bio	cycle m	ore in	the fut	ure thar	n you did before this
		presentation?	Yes		No		N/A	
	s (c	optional)						

About the same Less confident than before

More confident than before

**Comments (optional)** 

September 2019

N/A

	Too Long	Too Short	Just Right				
Noul	d you recommend	this presentation to	a friend?				
		Yes	No				
How o	did you hear about	the class or prese	ntation?				
a.	Other social media	a avenues (please lis	et)				
b.	Through your workplace (they posted information about it)						
c.	Your workplace hosted the presentation or class						
d.	Poster						
e.	Flyer or rack card						
f.	NJBWC Website						
g.	Other Website (ple	ease list)					
h.	Word of mouth						
i.	Newspaper (pleas	e list which newspap	oer)				
j.	Other (please list)						
Other	comments or feed	lback:					