

Understanding Minnesota Bicycle and EBike Law

Starting August 1, 2023 newly revised statutes for bicyclists take effect. There are several significant changes that police, cyclists and motorists need to be aware of. Remember by statute a bicycle is a vehicle, and the operator of the bicycle is essentially a driver. No driver license is required. Cyclists have the right to operate on the roadway, in a bicycle lane which is part of a roadway, on the shoulder – which is not considered part of a roadway – on a path alongside a roadway, or in some instances upon a sidewalk. Sidewalk riding is forbidden in business districts by statute and may be prohibited by ordinances elsewhere. Most traffic laws apply to operators of bicycles except those which by their very nature cannot apply.

Some statutes apply to cyclists on bikeways, in particular in regard to providing an audible warning of some sort before passing others on a bikeway. Many bikeways may not even be within a public highway. A "Bikeway" means a bicycle lane, bicycle path, bicycle route, shared use path, or similar bicycle facility, regardless of whether it is designed for the exclusive use of bicycles or for shared use with other transportation modes.

For years one of the most confusing statutes was §169.222 Subd. 4 which said, "Every person operating upon a roadway shall ride as close as practicable to the right-hand curb or edge of the roadway except under the following situations:" It then listed exceptions which contained 3 times more words than the initial sentence. Many motorists, cyclists and even police only remembered the first sentence.

Many people thought it meant that a cyclist had to ride as close to the right side of the roadway as **possible**, somehow inferring that they needed to move over so cars could pass them within the same traffic lane. But it didn't – right of way laws always give right of way to the road user ahead. *With the exception of emergency vehicles* they never require anyone to pull over to "make room!" The old statute mimicked the law regarding slow moving vehicles. SMVs are required to stay far to the right so they are easier to see around to pass. Unlike a horse drawn buggy or a farm tractor pulling an implement, bicyclists, even riding two abreast, are easy to see around.

The cyclist on a roadway has the right of way over an overtaking motorist. Yet, if a cyclist is riding near the middle of the traffic lane many motorists get upset, and sometimes hostile, thinking the cyclist is doing something illegal.

The exceptions to riding on the right of the roadway were, and continue to be WHEN:

- 1) overtaking and passing another vehicle proceeding in the same direction,
- 2) preparing for a left turn at an intersection or into a private road or driveway,
- 3) reasonably necessary to avoid conditions that make it unsafe to continue along the right side, including fixed or moving objects, vehicles, pedestrians, animals, surface hazards and narrow-width lanes,
- 4) operating on the shoulder of a roadway or in a bicycle lane,
- 5) operating in a right-hand turn lane before entering an intersection. (This section is new)

The term narrow-width lane is defined as a lane which is too narrow for a motor vehicle and a bicyclist to operate safely and legally side by side within the same lane.

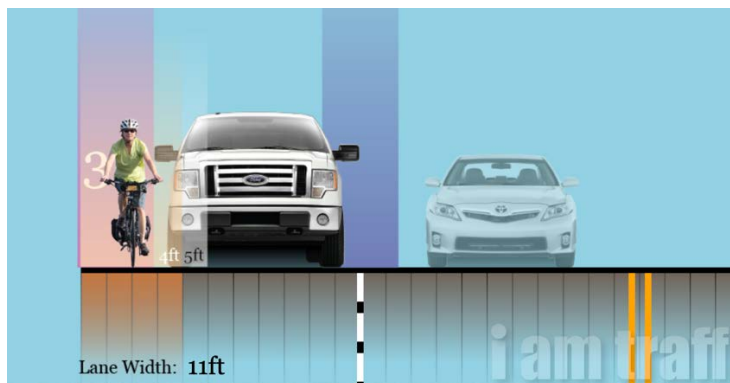
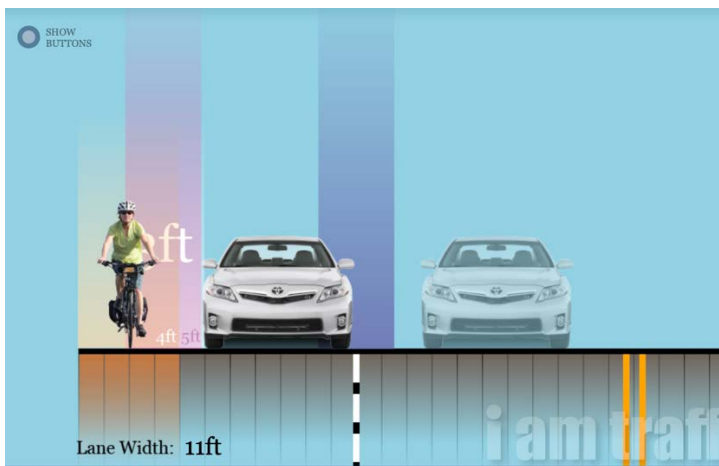
Let me provide some guidance. The minimum operating space necessary for a bicyclist is 4 feet. That allows for the width of the bicycle and rider in addition to the normal side by side

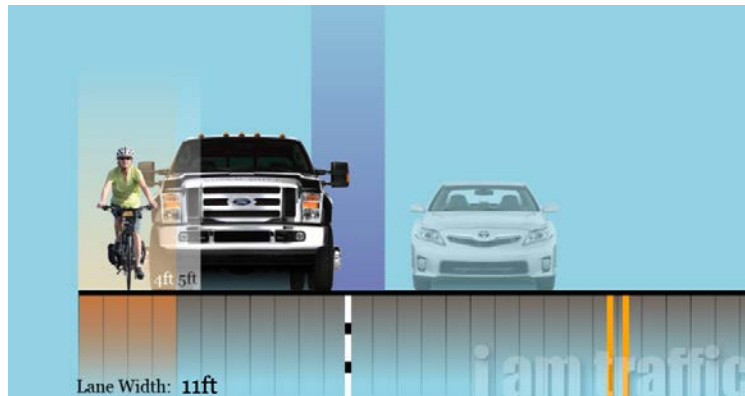
movement that takes place while balancing. It also allows some room to accommodate small movements a cyclist may make avoiding rocks, debris, or other objects in their path. In accordance, the minimum design standard for a bicycle lane is 4 feet wide. Whether the roadway is 11-12 feet wide, the cyclist requires a minimum 4 feet of it.

Next, an additional minimum of 3 feet of space is required for the motorist to fulfill the passing requirement of §169.18 Subd. 3 (3) which requires “safe clearance, in no case less than three feet, when passing a bicycle or individual...” That adds a minimum 3 feet more to the space required. Those requirements have excluded 7 feet of the traffic lane from overtaking traffic. Most motor vehicles are at least 6 feet wide from mirror to mirror. Trucks are obviously wider; a Ford F-150 pickup is roughly 8 feet wide mirror to mirror. The reality is it’s virtually impossible for most motor vehicles to pass a cyclist safely and LEGALLY within the same lane unless the lane is at least 14 feet wide.

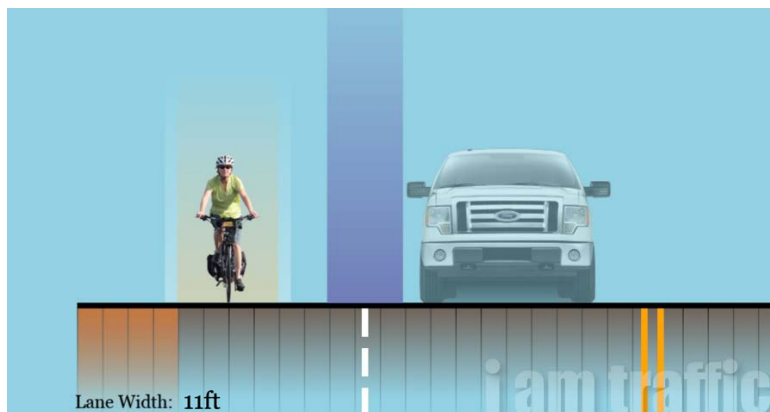
The following illustrations may make it clearer. The four-foot operating space required by the cyclist is shaded below the cyclist. The minimum 3 feet passing clearance is indicated by shading above the road surface. These illustrations are created to scale.

Lane Sharing





Lane Control



Graphics from <https://cyclingsavvy.org/lane-width-space/>
Keri Caffery – artist

To avoid close passes, which are one of the most feared actions cyclists experience, cyclist training and learned experience is to move more towards the center and to control the lane. That makes it clear to overtaking motorist that there is no room to pass them in that lane. The overtaking motorist needs to pass in an alternate lane. Several years ago the statute was amended to allow a motorist to pass a cyclist over a double yellow center line if safe to do so. A motorist may have to wait a short time, but passing a slower moving cyclist takes less time and distance than passing another motorist does. The revised §169.222 Subd. 4 (a) now says, “A person operating a bicycle is not required to ride as close to the right-hand curb or edge when:” and it then lists the exceptions shown earlier.

When passing a bicycle §169.18 Subd 5 (c) also says “a motor vehicle may be driven to the left side of the roadway to safely overtake a bicycle under the following circumstances:

- (1) the bicycle is proceeding in the same direction as the motor vehicle;
- (2) the driver of the motor vehicle either (i) provides a safe clearance distance, in no case less than the greater of three feet **or one-half the width of the motor vehicle**, or (ii) completely enters the left lane of the highway;”

Occasionally a motorist will pass a bicycle while ‘splitting a lane,’ meaning the car is straddling the lane divider. They do so to avoid completely changing into an alternate lane. They may do so out of hostility, anger or even inattention. If a cyclist is controlling the traffic lane by riding near it’s center, it’s not unheard of for a motorist to pass them closely – intentionally – while splitting the traffic lane. If that occurs it is likely a violation of this provision.

Bicyclists may ride on the shoulder if they wish. That usually means it is paved, clear of debris, and rumble strips. A shoulder is not considered part of the roadway. If they do ride on the shoulder, they must ride the same direction as adjacent traffic. Riding a bike against the flow of traffic, especially approaching an intersection, increases a cyclist’s likelihood of a crash with a motorist by nearly 300 percent.

Bicyclists may ride on a sidewalk where it is permitted. Business districts are forbidden by statute. A person operating a bicycle on a sidewalk is legally considered a pedestrian, and beholden to all of the pedestrian laws under §169.21. They often travel 2-3 times the normal speed of a true pedestrian and as result might not be seen by motorists scanning the corner area for pedestrians at or near an intersection. They are not beholden to any rules of direction, and they are only a few feet from the area a wrong way cyclist would be riding. Their likelihood of a crash at an intersection is equally high unless they slow to pedestrian speed. §169.21 Subd 2 Absence of Signals includes the language “ No pedestrian shall suddenly 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. This provision shall not apply under the conditions as otherwise provided in this subdivision.” This addresses pedestrians and sidewalk cyclists who dart out from the corner or into a crosswalk. Contrary to what people may think, riding a bicycle on a sidewalk is not usually safer than riding on the roadway – especially at intersections.

Cyclists may ride in a Bicycle Lane if it is available. A bicycle lane is a legal and exclusive lane, which is usually part of the roadway. It must be denoted through signs or roadway marking that it is a bike lane. It is normally not useable by motorists, except when they are parking legally adjacent to the bicycle lane or are making a right turn across one. See §169.19 Subd.1 (g) for specifics.

Cyclists do not have to ride in a Bicycle Lane or upon the shoulder, even if they are available to use. The cyclist’s experience, riding style, speed, type of bike and destination may all be factors in where they choose to be and where they feel safest. Statutes allow persons operating a bicycle to ride upon the shoulder or in the bicycle lane if they don’t feel safe riding upon the roadway. I have friends who have complained that while driving around the Minneapolis lakes they are slowed by cyclists riding on the roadway, and not using the bike path. “They have very expensive bike paths they are supposed to ride on,” they tell me. Serious cyclists who ride fast don’t want to ride on those paths where the speed is restricted to 10 mph, and it is filled with every variety of cyclist, scooter and pedestrian. For them it is dangerous and the speed limit prohibitive to their style. They want to be able to go fast, and in many cases they can reach and maintain the posted 25 mph limit on the roadway around the lake. §160.263 provides more statutory information on bicycle lanes, routes and paths for those interested.

Minnesota just instituted a modified “Idaho Stop Law” which allows a bicyclist to treat a Stop Sign as a Yield sign. In the new §169.222 Subd. 4a. The bicyclist approaching a Stop Sign “must slow to a speed which allows for stopping before entering the intersection or crosswalk.” If there is no vehicle or pedestrian “in the vicinity” which presents “a collision hazard during the

time the bicycle operator would occupy the intersection,” the bicyclist may proceed through without stopping.

Some cyclists, and perhaps even some police officers, wrongly believed that a cyclist had to come to a complete stop, which they thought meant putting a foot down to the ground and to wait before proceeding. §169.20 Subd 3 (Right of Way) addresses Stop Signs. Nowhere does it require a foot be placed on the ground – try that in your pickup truck – nor does it specify a length of time the vehicle must remain stopped. The cessation of movement could be only an instant depending on any approaching traffic that must be yielded to. The new 4a provision only formalizes what has been common practice for a long time. If a cyclist blows past a Stop Sign - pedaling at high speed without slowing – they’re still in violation.

The original “Idaho Stop Law” also allows cyclists to treat a red semaphore signal as a Stop Sign, meaning they can ride through the intersection if it is clear to do so. That is NOT the law in Minnesota, however. For many years Minnesota law has had an Affirmative Defense for persons operating bicycles and motorcycles for whom the semaphore signal will not change. Bikes made of non-ferrous material like aluminum, titanium or carbon fiber will not be picked up by in-road sensors. After meeting certain requirements listed in §169.06 Subd. 9 they may proceed through an intersection, if safe to do so, in technical violation of the traffic light. If they are cited, the statute provides them an affirmative defense. As a result, people operating bicycles must still stop for red signals and wait for green ones. Anything else is still a violation.

Many cyclists, believing they needed to stay far to the right, would ride straight through an intersection even while using a Right Turn Only Lane (RTOL). That illegal behavior confused drivers and resulted in a number of crashes. On occasion cyclists riding along the shoulder of a high-speed roadway (45 mph+) experience the shoulder suddenly turn into a RTOL. In order to stay within the law the cyclist has to try to move left into the high-speed traffic, which may not have time to react to a slower speed cyclist. Many cyclists would stay on the left most portion of the RTOL and ride through the intersection. That action is now made legal. 169.222 Subd 4 (f) now says “ Notwithstanding section 169.06, subdivision 4, a bicycle operator may cross an intersection proceeding from the leftmost one-third of a dedicated right turn lane without turning right. It’s unlikely this behavior would have resulted in a citation, but it can be an issue when investigating and reporting a collision.

Another significant change, to eliminate confusion, is 169.222 Subd 4 (c). Previous language made it illegal to ride bicycles “more than two abreast and they shall not impede normal reasonable traffic.” That is very subjective to be sure. Two abreast cyclists can slow traffic behind them but persons riding single file can’t? Groups of cyclist often ride two abreast to shorten their group, to control one lane and to get through intersections faster. Police cycling classes ride like that too. It now reads “Persons riding bicycles upon a roadway or shoulder must not ride more than two abreast, and on a laned roadway, shall ride within a single lane.”

While statutes have not changed regarding bicycle equipment, it is important that police officers know and enforce them, especially at night.

1. Bicycles are required to have a working headlight at night. Even an inexpensive one will likely meet the requirement to be visible 500 feet away. A white front reflector is not a legal substitute for a headlight.
2. A bike must have reflectors in certain areas: a red reflector on the rear which is visible between 100 and 600 feet from behind. If the reflector is sagging or misaimed, it will not work effectively. A rear taillight in lieu of a rear reflector is in full compliance with the law.

3. Pedals - The reflective surfaces shall include reflective materials on each side of each pedal to indicate their presence from the front or the rear. Some styles of bicycle pedals are designed in a way that reflectors cannot be mounted to them. In that case some sort of reflectorized material should be worn around the lower leg, ankle or on the shoes. "Pedal reflectors" which move in a predictable and highly visible up and down manner are some of the best reflectors to clearly identify the presence of a bicyclist ahead to overtaking motorists.
4. Each side of the bike must have a minimum of 20 square inches of reflective material. Often reflectors are placed in the spokes or wheels, and as they turn they effectively meet the required 20 inches.
5. Bicycles are required to have working brakes. Either a rear or front and rear brakes which can make the wheel skid on clean, dry, level pavement is required. Some bikes have a direct, or fixed, drive. They are easy to identify. When the tires are turning so are the pedals and crankarms. They cannot coast, and they could actually be ridden backwards. Often times they have no brakes. In order to be legal the rider of the fixed gear – or fixie – must be able to use his pedals, legs and technique to stop the rear wheel and make it skid on clean, dry, level pavement. That actually requires some skill and strength.

Electric Assist Bikes

Electric Assist bicycles, aka eBikes, are gaining huge popularity. EBikes are legal when they fall within the definition set by statute. Most eBikes sold in bike shops do. Others, however, exceed the limits set by statute and fall outside the definition. The statutes only address electric assist bikes which fall under this definition: "Electric-assisted bicycle" means a bicycle with two or three wheels that:

- (1) has a saddle and fully operable pedals for human propulsion;
- (2) meets the requirements for bicycles under Code of Federal Regulations, title 16, part 1512, or successor requirements;
- (3) is equipped with an electric motor that has a power output of not more than 750 watts; and
- (4) meets the requirements of a class 1, class 2, or class 3 electric-assisted bicycle.

Briefly, Class 1 and Class 3 eBikes have to be pedaled in order to activate any assistance from the motor. A Class 1 bike must cease assistance at 20 mph. A Class 3 bike must cease assistance at 28 mph. A Class 2 bike can assist the operator through either pedaling for by use of a throttle control. If an eBike is moving swiftly down the road and the operator isn't pedaling, it's likely a Class 2 with a throttle. A Class 2 must cease assistance at 20 mph. Everything in terms of speed and assistance is ultimately determined by the software. If the software is modified the limits on the speed can be too

A legal eBike, for use on MN roadways and bikeways, cannot have motor power output of over 750 watts. There are many so-called "eBikes" in use which exceed that. Some look more like motorcycles, some don't have functional pedals. The speed they are going while riding can certainly be a giveaway at times as to its power level and conformance. The market is flush with new products trying to enter the "eBike" market. This is where discretion, curiosity and your own personal subject knowledge are necessary and useful.

169.222 Subd 6a addresses electric assist bicycles, eBikes. For the most part the laws regarding eBikes are identical to those for regular bicycles. The biggest difference is – NO person under the age of 15 shall operate an electric assist bike. Lastly, local or trail ordinances can be passed to control eBike use on their facilities.

Motorized Bicycles

Motorized Bicycles use a gas engine and should not be confused with an electric assist bicycle. They don't seem to be a common conveyance in Minnesota. In the event you encounter one, or have questions, §169.223 is completely dedicated to motorized bicycles.

Understanding the current statutes regarding operation of bicycles on the roadway can help make the roadway safer for everyone. It can also make your job easier if you are involved in an enforcement action or get called to a crash involving a cyclist where it is important to know and understand the bicycle and eBike law.

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