



# Bicycle & Pedestrian Advisory Commission

Regular Meeting Agenda  
November 27, 2023 at 6:00 p.m.

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1. Call to Order
2. Welcome New BPAC Member, Jennifer Nunez
3. Guest Speaker: Jesse Day, Regional Planning Director, Piedmont Triad Regional Council
4. Public Comment
5. Approval of September 25, 2023 and October 16, 2023 Meeting Summaries
6. Bicycle and Pedestrian Transportation Plan Update
7. Autumnfest Feedback
8. E-Bike Regulation Discussion
9. New & Ongoing Business
  - a. Greenways and Guest Speakers Reflection
  - b. Downtown Bike Rack
  - c. Meeting Schedule
10. Adjournment

# Research of Electric Scooters and Electric-Assisted Bicycle Regulations

*This report was drafted by Alex Hallway, Planner II of the Central Pines Regional Council, in October of 2023.*

## Electric Scooters

Since 2018, electric-assisted stand-up scooters, or e-scooters, have become a regular staple nationally and in many North Carolina communities. They first made an appearance in North Carolina in the spring of 2018 in Charlotte and soon spread to other communities in the Triangle and Triad later that fall. [A North Carolina House Bill was considered in 2019](#) that would have defined e-scooters as devices with three or less wheels smaller than twelve inches in diameter, meant to be stood-up on while riding that travel at no greater than 20 mph.

Communities have taken different approaches to determine the best ordinances to regulate e-scooters and these ordinances have adapted over time. In general, most communities have adopted ordinances that prohibit e-scooter usage on sidewalks with some municipalities allowing e-scooters on sidewalks except for in the Central Business District and/or other high-foot traffic areas. Like cyclists, e-scooter riders are required to follow traffic laws and use hand signals accordingly. Typically, riders under the age of 16 are required to wear a helmet. In all communities, helmet usage amongst all riders is encouraged.

Although mostly ridden in the street, e-scooters are to be parked on municipal sidewalks. To ensure they do not obstruct pedestrian passage, communities have adopted ordinances that specify obstruction regulations for e-scooters. Although “obstruction” is often vaguely defined in these ordinances, it is not uncommon to have language regarding the blockage of ADA compliant features. In 2021, Raleigh created [designated on-street parking areas](#) solely for e-scooters; however, e-scooters are not required to be parked in these areas.

The following page includes a table summarizing e-scooter regulations in six municipalities.

***Table 1. Local Regulation of Electric Scooters***

Community	Speed Limit (miles per hour or mph)	Age Restrictions	Sidewalk Restrictions	Links to Website and/or Ordinance
<b>Cary</b>	20 mph	Helmet required if under 16.	Prohibited on all sidewalks.	<a href="#">Website</a>
<b>Charlotte</b>	15 mph	Helmet required if under 16.	Only prohibited on sidewalks in Central Business District.	<a href="#">Ordinance</a>
<b>Durham</b>	20 mph	16 or older	Prohibited on all sidewalks.	<a href="#">Ordinance</a> <a href="#">Website</a>
<b>Greensboro</b>	20 mph	18 or older	Only prohibited on sidewalks in Central Business District.	<a href="#">Ordinance</a>
<b>Raleigh</b>	20 mph	18 or older	Prohibited on sidewalks, greenways, and multi-use paths.	<a href="#">Ordinance</a> <a href="#">Website</a>
<b>Winston-Salem</b>	20 mph	16 or older	Prohibited on all sidewalks.	<a href="#">Ordinance</a> <a href="#">Website</a>

## Electric-Assisted Bicycles

Like e-scooters, electric-assisted bicycles, or “E-bikes,” have slowly become more popular as a form of transportation, with many e-scooter companies offering e-bikes as a part of their services. Typically, e-bikes and e-scooters will both fall under the umbrella term of “micro,” “dockless,” or “shared mobility” in municipal ordinances. However, e-bikes often have less restrictions than e-scooters because under NC General Statute e-bike usage is [treated similarly as use of manual bikes](#). An e-bike is [defined in NC General Statute Chapter 20](#) as a bicycle with two or three wheels that has a motor of less than 750 watts and can be propelled no greater than 20 mph.

Table 2 includes a summary of e-bike regulations in five municipalities.

***Table 2. Local Regulation of Electric-Assisted Bicycles***

Community	Speed Limit (miles per hour or mph)	Age Restrictions	Sidewalk Restrictions	Links to Website and/or Ordinance
<b>Charlotte</b>	15 mph	16 or older	Allowed on all sidewalks.	<a href="#">Ordinance</a>
<b>Durham</b>	20 mph	16 or older	Prohibited on all sidewalks and multi-use paths.	<a href="#">Ordinance</a> <a href="#">Website</a>
<b>Greensboro</b>	20 mph	16 or older	Allowed on sidewalks except for in Central Business District.	<a href="#">Ordinance</a>
<b>Raleigh</b>	20 mph	16 or older	Allowed on all sidewalks.	<a href="#">Ordinance</a>
<b>Winston-Salem</b>	20 mph	16 or older	Prohibited on all sidewalks.	<a href="#">Ordinance</a> <a href="#">Website</a>

## Recommendations

### **E-BIKES:**

At the October 2, 2023, meeting of the Mebane City Council, discussion around e-scooters and e-bikes occurred after a recommendation that City Ordinance 34-94 include language to prohibit all motorized bicycles, including electric-assisted bicycles, from being utilized on sidewalks. As stated earlier, electric-assisted bikes are classified the same as manual bicycles under NC General Statute ([See NC G.S. 20-4.01 \(49\)](#)). Prohibiting one form of transportation from the sidewalk while permitting another could potentially invoke a legal gray area. For this reason, prohibiting electric vehicle usage on sidewalks beyond the Central Business District is not recommended. Further evaluation of any legal considerations mentioned is encouraged.

The recommendation for the prohibition of e-bikes on sidewalks seems to stem mostly from concerns about their speed. Although outright prohibition of e-bikes is not recommended, speed limits for all forms of micro-mobility, especially on multi-use paths which tend to be more heavily trafficked, can be considered. As an example, the City of Raleigh limits bicycles (manual and motorized) to [10 mph on its greenways](#).

### **E-SCOOTERS:**

Although, by definition, e-scooters can reach speeds of 20 mph this does not mean they must. Some communities have worked with micro-mobility providers to cap the speed of e-scooters to 15 mph. This includes Charlotte, [Matthews](#), and [Kinston](#). These communities and others have also “geo-fenced” their electric-assisted vehicles so that they will shut down or slow down when they reach restricted areas such as central business districts, parks, or historic districts. If the City of Mebane were to permit a service provider, they could work with them to take a similar approach.

Capping the speed of e-scooters could address another concern brought forth at the Council meeting regarding impacts of an ordinance change on children with electric scooters. RazorUSA’s (one of the top American children’s electric scooter manufacturers) [fastest scooter](#) tops out at 18 mph with many of its e-scooters reach speeds no greater than 12 mph. Given this, the City might consider allowing e-scooters to operate on sidewalks at

speeds no greater than 15 mph in all areas except for the Central Business District and other high-traffic areas. This can ensure that children are able to utilize e-scooters on sidewalks and not on the street, while also limiting the potential risk micro-mobility vehicles can pose to pedestrians and to the riders using them while on the sidewalk.

The City could also consider classifying e-scooters designed for child use as “toy vehicles” and have a separate ordinance that applies to them. The City of Greensboro has this distinction in its ordinance and [requires toy vehicles be ridden on sidewalks](#). Greensboro already permits e-scooters on sidewalks everywhere except for its central business district. No definition of motorized toy vehicles exists in NC General Statute Chapter 20.

## Ashley Ownbey

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**From:** James Allen <600ridgerunner@gmail.com>  
**Sent:** Monday, October 23, 2023 3:34 PM  
**To:** Katy Jones  
**Cc:** Ashley Ownbey; Allison Tate; Jason Smith; Matt Cummings; Rebecca Brouwer; Jennifer Nunez; Rachel Gaffney; Aaron Davis  
**Subject:** Re: E-bikes, scooters, & plan updates

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To quote uncle Ben from Spider-Man "With great E-power, comes great responsibility" Okay... maybe that's not verbatim, but you get the idea.

My experience traveling around the country for my races has exposed me to a number of municipalities and bigger metro areas that have either already adopted E-bikes or were "disrupted" by the inundation of the rental fleets of E-scooters. Everyone that I have had discussions with in those areas believes they are a safety concern on sidewalks and more dense downtown areas, not to mention the hazards of the E-scooter rental fleets just discarded anywhere and everywhere throughout a city... It's a valid eyesore.

I have closely followed the technological advancement and societal adoption of E-bikes with a few of my peers and many, many scores of others that I have interacted with on trails, roads, and greenways.

I'll summarize my observations and experience:

- E-bikes for short commutes and/or errands are a legitimate and beneficial method of transportation that can and should replace single-occupancy motor vehicles on our roads. They will reduce traffic congestion, engine emissions, and greatly alleviate parking in dense metro areas.
- They have no place on sidewalks that are of the standard width in any way, shape, or form... the speeds they can reach are a definite hazard to walking and running pedestrians, children, animals, et al
- Any attempt to regulate their use on sidewalks by their E-category is futile and toothless for enforcement. The average consumer and patron of an E-bike or other E-motive device is not only not going to do their due diligence on choosing a category that complies with an ordinance; they know that enforcement of those categories is negligible and hard to prove... if they even get stopped by the Police.
- Unregulated Lithium-Ion battery packs are a serious fire safety hazard and one need only do a few Web searches of E-bike fires to grasp that concern. New York City most recently clamped down on E-bike regulation due to the massive numbers of fire responses and destruction of property. There are dozens, if not hundreds, of E-bike sales platforms that have no regulation on the battery composition, conformance to electrical safety standards like UL or ETL, and do not offer any type of historical safety claims to society. Rad Power bikes is one of the most widely purchase bikes out there and they are facing a litany of lawsuits over injuries, deaths, and safety of their bikes.
- The E-bike Categories that Katy posted in her email are a good start for the industry to regulate their sale, use, and safety, but it's still currently very much a "Wild West" of bikes, batteries, DIY hacks, and lax enforcement where they are allowed or there is no ordinance/laws against their use.
- Final point is the Pandora's Box outcome... if E-bikes and/or E-scooters are allowed on sidewalks by city ordinance; that will open the box to others that would abuse that allowance by riding E-unicycles and other E-motive devices that are even less regulated than their two-wheeled counterparts.

Supporting research and reading:

- <https://www.classaction.org/news/rad-e-bikes-are-defectively-designed-class-action-lawsuit-claims>
- <https://www.bicycleretailer.com/industry-news/2022/10/05/state-farm-suing-rad-power-bikes-damages-after-insureds-e-bike-caught-fire>
- <https://www.bicycleretailer.com/industry-news/2023/06/05/fdny-more-deaths-linked-lithium-ion-battery-fires-all-last-year>
- <https://www.bicycleretailer.com/retail-news/2023/03/03/what-will-new-yorks-e-bike-law-mean-retailers-there>
- <https://futuresport.co/best-electric-unicycles/> ( **A maximum speed of 30 miles per hour**)

I'll end by saying that I truly believe E-bikes and E-scooters can be a net-positive gain for any municipality but their allowance on streets, paths, and greenways MUST be clearly defined, regulated, and enforced. Sidewalks are just too narrow, uneven, and with almost no safe point of egress if someone is using an electric transportation device carrying speed and momentum. This is an inflection point for Mebane and I genuinely hope we get it right.

James

On Sun, Oct 22, 2023 at 8:57 AM Katy Jones <[katyjones123@gmail.com](mailto:katyjones123@gmail.com)> wrote:

I reached out to my former colleagues at the PBIC (<https://www.pedbikeinfo.org>) and they shared over a few resources that may be helpful:

Primer on E-bike Laws

<https://www.peopleforbikes.org/topics/electric-bikes>

Model electric bicycle legislation (as defined by People for Bikes)

[https://peopleforbikes.cdn.prismic.io/peopleforbikes/3686d20b-5695-47c1-b0c7-ffe06402be55\\_Model-eBike-Legislation-Jan2020.pdf](https://peopleforbikes.cdn.prismic.io/peopleforbikes/3686d20b-5695-47c1-b0c7-ffe06402be55_Model-eBike-Legislation-Jan2020.pdf)

More Info on State-Level Three-Tiered E-Bike Classification System

Twenty-six states (Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Louisiana, Maine, Maryland, Michigan, New Hampshire, New York, Ohio, Oklahoma, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, Wisconsin and Wyoming) have created a three-tiered e-bike classification system intended to differentiate between models with varying speed capabilities. These states have almost identical defining language for e-bikes, as well as similar safety and operation requirements.

New Jersey and West Virginia both established a two-tiered classification system. In New Jersey's case, the definition only includes the first two tiers of classification. The legislature then modified its "motorized bicycles" definition by stating that such device is one that operates in excess of 20 MPH with a maximum motor-powered speed of 28 MPH. This would generally meet the definition of a "class three" e-bike. In West Virginia, the law provides for "class one" and "class three" e-bikes, but not the "class two" classification e-bike that can be propelled solely by a motor up to 20 MPH.

Class 1 electric bicycle: A bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.

Class 2 electric bicycle: A bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.

Class 3 electric bicycle: A bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour and is equipped with a speedometer.

N&O Article: Can you ride e-bikes and scooters in bike lanes in Raleigh? Here's the law.

<https://www.newsobserver.com/news/local/article265034209.html#storylink=cpy>



On Tue, Oct 17, 2023 at 5:18 PM Ashley Ownbey <[AOwnbey@cityofmebane.com](mailto:AOwnbey@cityofmebane.com)> wrote:

Dear Mebane BPAC,

Last night, many of you heard me mention that you will be asked to provide comments and/or a recommendation for ordinance language related to the regulation of electric bikes and scooters on sidewalks and multi-use paths. A contractor who supports the Planning Department will be completing research over the next two weeks and provide staff with his findings and recommendations. City Administration will use this research to draft language for review. We will share this information with you as it becomes available. I welcome you to begin the process of thinking through this matter in preparation for your November meeting.

As was decided at last night's meeting, please review the draft of the update to the bike/ped plan and share your comments with Rachel by next **Wednesday, October 25**. You can download a copy of the plan here: [BPTP Plan Update draft 10.10.2023](#).

Thank you!

Ashley

**Ashley Ownbey**

*Development Director*



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