BLUE SPRINGS
MISSOURI

CITY COUNCIL WORK SESSION

Monday, June 29, 2026, 6:00 PM

210 Administration Conference Room
City Hall
903 W Main Street
Blue Springs, Missouri 64015

Agenda

1. Call meeting to order
2. Confirmation of a Quorum
3. Comprehensive Plan – Urban 3 Workshop
4. E-Mobility Devices
5. Adjourn

Upcoming Meetings

Independence Day – **City Offices Closed** – July 3

City Council Meeting – July 6, 6:00 PM

Park Commission Meeting – July 7, 6:00 PM

Public Arts Commission Meeting – July 8, 4:00 PM

Planning Commission Meeting – July 13, 6:30 PM

Land Bank – July 20, 3:00 PM

City Council Meeting – July 20, 6:00 PM

A quorum of the Planning Commission may be in attendance. No votes will be taken at the Work Session.

This agenda was posted at City Hall and on the City's website on Friday, June 26, 2026.

Erin Ford, City Clerk

Council Work Session Date: June 29, 2026

Agenda Item #: 3

BLUE SPRINGS
MISSOURI

CITY COUNCIL INFORMATION FORM

DATE SUBMITTED: June 25, 2026

ITEM TYPE: Discussion

SUBMITTED BY: Nic Hutchison

CONTRACT NUMBER: N/A

DEPARTMENT: City Development

STRATEGIC PLAN PRIORITY: Balanced Growth

ITEM DESCRIPTION

Olsson and Urban3 will be leading a Foundational Revenue Analysis workshop for the Comprehensive Plan.

BACKGROUND

The City Development Department contracted with Olsson Inc in February 2026 with Resolution 10-2026, Contract 2026-020 to develop the City of Blue Springs Comprehensive Plan Update. Teams from Olsson and Urban3 are hosting a joint Workshop for the City Council and Planning Commission.

Urban3 will be leading the Revenue Analysis portion of the Comprehensive Plan. Urban3's work focuses on helping the City better understand the financial productivity of different development patterns throughout Blue Springs. This includes evaluating land use, development, property values, infrastructure needs, and revenue generation

relate to one another. The purpose of this analysis is to provide a clearer picture of how different types of growth, redevelopment and reinvestment can impact the City's long term financial stability.

The Urban3 presentation will move the process from research and analysis into community discussion, visioning, and concept development. Input gathered during this and other community meetings will help the consultant team refine land use concepts, growth strategies, community character recommendations, transportation, redevelopment opportunities, and implementation priorities.

After this engagement phase, the consultant team will being drafting and refining the plan's vision, guiding principles, policy framework, development and redevelopment concepts, and implementation strategies. The draft plan will then move through additional review, public open house opportunities, Planning Commission consideration and then City Council. Together these steps will help ensure that the final Comprehensive Plan reflects community priorities while also providing clear policy direction for future growth, reinvestment, development, infrastructure, and decision making in Blue Springs.

FINANCIAL IMPACT

INFORMATION	DETAIL
Contractor:	Olsson Inc

PROJECT TIMELINE

INFORMATION	DETAIL
Estimated Start Date	February 6, 2026
Estimated End Date	February 26, 2027

STAFF RECOMMENDATION

N/A

OTHER BOARDS & COMMISSIONS ASSIGNED

Name of Board or Commission: N/A

LIST OF REFERENCE DOCUMENTS ATTACHED

1. N/A

REVIEWED BY

Requesting Director: Nic Hutchison

Legal: N/A

Administration: George Schmitz

City Administrator: Christine Cates

Budget: N/A

BLUE SPRINGS
MISSOURI

CITY COUNCIL INFORMATION FORM

DATE SUBMITTED: June 22, 2026

ITEM TYPE: Discussion

SUBMITTED BY: Councilmembers Ericson and Kaylor

CONTRACT NUMBER: N/A

DEPARTMENT: Council

STRATEGIC PLAN PRIORITY: Community Safety

ITEM DESCRIPTION

Councilmembers Ericson and Kaylor requested a discussion about E-mobility devices (E-Bikes, E-Scooters, E-Motos, Electric Skateboards, and Similar Devices).

BACKGROUND

In Spring 2026, the Mid-America Regional Council (MARC) completed a regional review of e-mobility devices, including municipal regulations, infrastructure considerations, and educational efforts occurring throughout the metropolitan area.

Key Findings from the Regional Review

The MARC report identified several common themes across the region:

- Many communities are struggling to distinguish between traditional e-bikes and

higher-powered "e-motos" that function more like motorcycles.

- Regulations vary significantly from city to city, creating inconsistencies for users traveling between jurisdictions.
- Most communities are focusing on safety, education, and enforcement rather than outright prohibitions.
- Educational campaigns are considered the most effective short-term strategy for improving safety.
- Police agencies throughout the region generally prefer education and voluntary compliance before pursuing enforcement actions.
- Communities continue to evaluate whether existing infrastructure, sidewalks, trails, and bike facilities adequately accommodate these devices.

STAFF RECOMMENDATION

N/A

LIST OF REFERENCE DOCUMENTS ATTACHED

1. **E-Mobility Devices in the Kansas City Metro – Mid America Regional Council Spring 2026**

REVIEWED BY

Requesting Director: N/A

Legal: N/A

Administration: Christine Cates

City Administrator: Christine Cates

Budget: N/A

E-MOBILITY DEVICES IN THE KANSAS CITY METRO

A REVIEW OF CODES, INFRASTRUCTURE PRINCIPLES, AND EDUCATIONAL EFFORTS

SPRING 2026

MID-AMERICA REGIONAL COUNCIL

MARC
MID-AMERICA REGIONAL COUNCIL

CONTENTS

EXECUTIVE SUMMARY 3
- Purpose and Methods 3
- Findings and Conclusions 3

INTRODUCTION 4

E-BIKES AND E-MOTOS 4
- The Problem of Distinguishing E-bikes from E-motos 5
- Proposed Solutions for E-moto Confusion 5

E-MOBILITY COMPARATIVE CITY CODE REVIEW 6
- Definition of E-bike 6
- E-scooter Speed Maximum 7
- E-bike Age Restriction and Registration Requirements 8
- E-bike Operation on City Streets 8
- E-scooter Operation on City Streets 8
- E-bikes on Sidewalks 9
- E-scooters on Sidewalks 9
- E-mobility Devices on Trails 9
- Motorized Skateboards and Electric Unicycles 11
- Helmet Laws 11

PRINCIPLES FOR E-MOBILITY INFRASTRUCTURE 12
- Safety 12
- Comfort 12
- Connectivity 13
- Legibility 13

EDUCATIONAL EXAMPLES 14
- BikeWalkKC – Johnson County: E-Wheel Safety 14
- City of Leawood – Ride Safe, Leawood 15
- City of Shawnee – All Things Hometown city magazine, spring 2026 issue 16

APPENDIX A: PEOPLEFORBIKES MODEL E-BIKE LAW 17

APPENDIX B: KANSAS AND MISSOURI MODEL TRAFFIC ORDINANCES 17

APPENDIX C: MODEL TRAFFIC ORDINANCE ADOPTION BY CITIES 17
- Kansas Cities 17
- Missouri Cities 18

APPENDIX D: CODE CITATIONS 19

EXECUTIVE SUMMARY

Purpose and Methods

Local governments across the Kansas City region are concerned about the safety ramifications of "e-mobility" devices: e-bikes, e-motos, e-scooters, electric skateboards, electric unicycles and potentially more. The Mid-America Regional Council (MARC), the federally designated metropolitan planning organization for the Kansas City region, seeks to provide information for the benefit of stakeholders on this important issue.

Topics for this paper fall into four categories:

1. **The difference between e-bikes and e-motos**
   MARC relays information from bicycle industry trade group PeopleForBikes to help stakeholders differentiate between electric devices when discussing safety.
2. **A municipal code review**
   MARC reviewed the codes of cities in the region to understand differences in policies related to e-mobility devices. Not every city in MARC's nine-county planning area was reviewed. The focus was on cities with relatively contiguous borders to examine the concern that the legality of e-mobility devices would change significantly between neighboring cities, posing difficulties for users.
3. **Principles for bicycle infrastructure networks that can also serve e-mobility devices**
   The proliferation of e-mobility devices represents an opportunity for choice in mobility but raises the question of how to better accommodate them in public rights-of-way. This paper cites from the AASHTO Guide to the Development of Bicycle Facilities, 5th Edition.
4. **Examples of education on e-mobility devices**
   Cities and other organizations have begun to educate the public on the laws and safety around e-mobility devices. MARC has included some examples of education in this paper.

Findings and Conclusions

- E-mobility devices that should be considered electric mopeds or motorcycles (e-motos) are being confused with electric-assist bicycles (e-bikes). For better clarity in law, cities should recognize and regulate e-motos as motor vehicles.
- Cities in the Kansas City region have a variety of regulations related to e-mobility devices. They differ on topics such as the definition of an e-bike, whether e-scooters may operate on city streets, and what kinds of devices are allowed on trails. As cities pass more ordinances on this topic, regulations across the region will have an increasingly patchwork character.
- There is no specific infrastructure guidance around e-mobility devices; what makes for good bicycle infrastructure is likely what makes good e-mobility infrastructure.
- Educational efforts represent the best short-term intervention to improve e-bike safety. Police officers prefer to educate residents before punitively enforcing the law.

INTRODUCTION

E-mobility devices, small transportation devices powered partially or fully by an electric motor, have grown in popularity in recent years. These devices include e-bikes, e-motos, e-scooters, motorized skateboards, electric unicycles. They are typically slower and lighter than automobiles but faster and heavier than non-electric bicycles, creating uncertainty about how they fit legally and culturally into the current mix of transportation options. More urgently, many residents and local officials in the Kansas City region are concerned about crashes involving the users of these devices, especially minors.

As the Kansas City region's metropolitan planning organization (MPO), the Mid-America Regional Council (MARC) can provide some information and analysis regarding e-mobility devices. This paper is not meant to address every concern, but it provides a starting point to help local governments begin informed discussions and consider next steps.

E-BIKES AND E-MOTOS

E-bikes are the most confusing category of e-mobility devices, largely because they come in many different configurations. Many cities and states use a three-class system to define e-bikes, and only devices that meet those criteria — or another definition set in local law — are considered electric-assisted bicycles and treated like non-electric bicycles.

Devices that fall outside of those classes, especially in terms of speed, raise additional questions. PeopleForBikes and BikeWalkKC recommend calling these higher-powered devices "e-motos" because their speed and performance more closely match a moped or a motorcycle. These are often the devices that worry residents and officials the most, particularly when thinking about the safety of younger users.

Focusing on e-motos is an important step in improving e-mobility safety. Their relatively low cost makes them appealing gifts for children, raising concerns about speed, power and appropriate use. See the Educational Examples for messaging examples to parents.

Table 1: Classes of E-Bike

Class	Top Assist Speed	Pedal Assist	Throttle Assist
1	20 mph	Yes	No
2	20 mph	Yes	Yes
3	28 mph	Yes	No

Electric-assisted bicycles are typically defined as having a motor of 750 watts or less. Some Kansas City metro area city laws allow 1,000 W motors.

The Problem of Distinguishing E-bikes from E-motos

Cities are struggling to tell the difference between electric bicycles and electric motorcycles, and the devices themselves aren't making it easier. PeopleForBikes suggests simple visual cues — for example, motorcycles often have a bench-style seat, while bicycles typically use an adjustable-height seat.[1] But today's e-mobility market includes many devices that look like e-motos yet claim to meet the three-class e-bike standards.

Because of that overlap, visual cues alone won't reliably separate e-bikes from e-motos. Cities will need policies related to devices' capabilities. They'll also need to consider the issue of "jailbreaking," in which riders modify a device's software to reach speeds beyond what's advertised and beyond what's allowed for an e-bike.

Proposed Solutions for E-moto Confusion

PeopleForBikes outlines several policy solutions for the confusion around e-motos. Although many of these proposals are focused on state law, some could be adopted locally through city ordinances. Cities should consult their legal counsel if they are interested in these measures:

- Prohibit easily modified devices and tools used to modify those devices.
- Prohibit products that are made to appear as electric-assisted bicycles but are actually e-motos.
- Prohibit false advertising of e-motos.
- Require sellers notify buyers of the legal vehicle definition of the product in the buyer's state.
- Require e-motos meet electrical and battery safety standards.
- Enforce the law against online sellers as well as local retail locations.

Further reading on e-motos

- "The E-Bike Problem is an E-Moto Problem" (Part 1 of 3 - PeopleForBikes)
- "The Hidden Dangers of Illegal E-Motos" (Part 2 of 3 - PeopleForBikes)
- "Solutions to the E-Moto Problem" (Part 3 of 3 - PeopleForBikes)
- Creating a Safer Environment for E-Bikes and Scooters (BikeWalkKC)

1 PeopleForBikes, "Solutions to the E-moto Problem." October 9, 2025. https://www.peopleforbikes.org/news/solutions-to-the-e-moto-problem

E-MOBILITY COMPARATIVE CITY CODE REVIEW

Concerns about e-mobility devices often center on whether local laws are consistent from one city to the next, especially in areas where small municipalities are clustered together. A Class 3 e-bike could be legal in one community, but not in the next. An e-scooter might be allowed on the street near a rider's home but restricted to the sidewalk once they cross an invisible municipal boundary. This section aims to clarify those questions by reviewing city codes and recent ordinances.

Not every city in the Kansas City metro area was included in this analysis. The goal is to illustrate the range of e-mobility regulations in the region and examine the consistency of laws between relatively contiguous cities. Tables of citations for the codes referenced are available in Appendix D.

In this section, terms are used in the following ways:

- E-bike – an electric-assisted bicycle as defined by a city, or by prevailing state law
- E-scooter – a device with two tandem wheels and a deck to be stood upon while riding, in the style of the Bird or Lime scooter services

Definition of E-bike

How an e-bike, or "electric-assisted bicycle," is defined in law determines whether it is treated like a bicycle or a motor vehicle. Many cities have adopted the three-class definition system for e-bikes but others rely on a single definition based on specific characteristics. If a city's code does not actually use the terms "Class 1," "Class 2," or "Class 3," a reader can understand what classes are allowed based on the characteristics that city code describes. If e-bikes are defined as providing speeds no faster than 20 miles per hour, this excludes Class 3. If code states that an e-bike must be pedaled for the electric motor to provide assistance, this excludes Class 2.

In general, larger cities such as Kansas City, Missouri, the Unified Government, Overland Park, and Lenexa draft their own definitions of electric-assisted bicycle that exclude one or two of the three classes. Smaller cities, including Parkville and North Kansas City, take a similar approach, but many rely on model traffic ordinances to define their terms. .

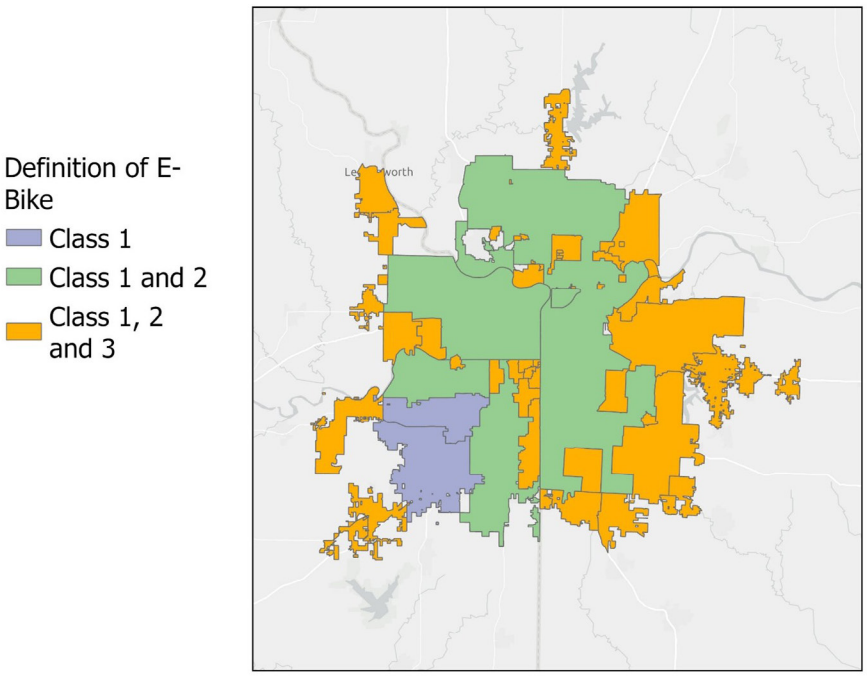
Practically speaking, legal conflicts are possible as e-bike users travel between municipalities. For example, Class 3 e-bike users starting their rides in Lee's Summit, Gladstone, or the small cities in northeast Johnson County would find themselves without the status of a bicyclist if they travel to places like Kansas City, Missouri, Overland Park, the Unified Government, or Shawnee. Class 2 e-bike users would not be considered bicyclists if their travel took them to the streets of Lenexa or Olathe. Lacking the status of bicyclist would not mean that the devices are prohibited, but rather that the user would be considered a motor vehicle operator.

To illustrate these differences, Figure 1 is a map of how cities define e-bikes, shown in terms of the three-class definition system. Some cities that recognize all three classes of e-bike have adopted model traffic ordinances, but others have made no ordinances and state law applies. Both Kansas and Missouri law recognize all three classes of e-bike. For a list of the cities that have adopted model traffic ordinances, see Appendix C.

Please note:

- The map does not account for possible further restrictions on off-street trails.
- E-bikes are generally defined as having an electric motor of 750 watts or less, though some city codes allow for 1,000 watts. For this analysis, motor wattage is less significant than other characteristics, such as speed capability and throttle assistance.

Figure 1: Map of how city codes define electric-assisted bicycles in terms of the three-class system.



E-scooter Speed Maximum

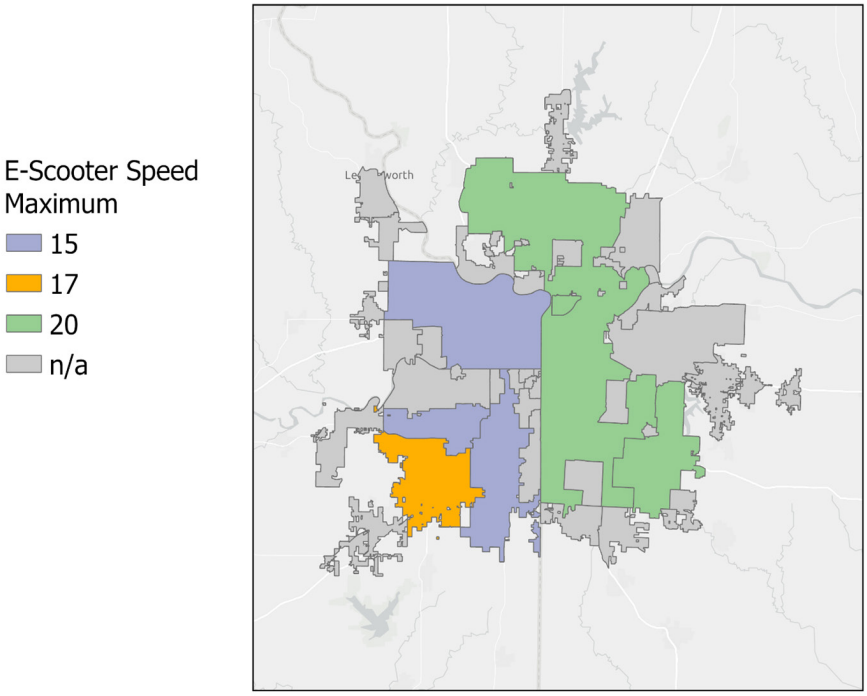
E-scooter regulations are less common than e-bike regulations, possibly because e-scooters are more often associated with shared e-scooter services, which are not widespread in the region. City codes sometimes define the maximum speed capability of e-scooters through terms such as "electric-assisted scooter," "motorized scooter," "foot scooter" or simply "scooter." Other times, the code says that it is unlawful for e-scooters to travel above a certain speed. However, as more individuals purchase personal e-scooters, these regulations may become more relevant.

Speed limits for e-scooters in the Kansas City area vary slightly:

- Overland Park, Lenexa, and the Unified Government set a maximum of 15 mph.
- Olathe sets a maximum of 17 mph.
- North Kansas City sets a maximum of "less than twenty (20) miles per hour."
- Kansas City, Missouri and Lee's Summit set a maximum of 20 mph.

Given the small differences, a rider crossing into a city with a lower speed maximum is unlikely to draw attention. Cities marked "n/a" do not address e-scooter speed in their codes. Neither Kansas or Missouri law or model traffic ordinances define e-scooters in terms of speed or set a limit on e-scooter speeds.

Figure 2. Map of the maximum allowed speed of electric-assisted/motorized scooters per city codes.



E-bike Age Restriction and Registration Requirements

No city in the Kansas City metro requires driver's license endorsement or registration for devices defined as electric-assisted bicycles. Kansas and Missouri state laws prohibit anyone under 16 from operating a Class 3 e-bike, though they may ride as passengers. Several cities in the region mirror this requirement through local ordinances or by adopting model codes.

Fairway is the primary outlier. In Fairway, no one under 15 can operate an e-bike on a street or sidewalk without supervision. As in other cities, operating Class 3 e-bike is limited to individuals 16 or older.

E-bike Operation on City Streets

A few cities restrict e-bike use to streets with certain posted speed limits.

- Overland Park and Olathe: E-bikes can only operate on streets with a speed limit of 35 mph
- Lee's Summit: Class 1 and 2 e-bikes are limited to streets posted at 35 mph. Class 3 e-bikes may operate on streets posted up to 45 mph.

E-scooter Operation on City Streets

Some cities also regulate where e-scooters are allowed to operate based on posted speed limits.

- Overland Park and Olathe: E-scooters may not operate on streets with posted speed limits exceeding 35 mph.
- Lenexa: The limit is 25 mph.

A few cities prohibit e-scooters on streets completely. Leavenworth and Shawnee do not allow e-scooters on city streets. Basehor may also prohibit e-scooters on city streets, depending on whether a scooter meets the specified dimensions of motorized scooters under its motorized play and recreational vehicle code.

E-bikes on Sidewalks

Determining whether bicycles or e-bikes may use sidewalks is challenging because city codes and state laws rarely address the issue specifically. In most Kansas and Missouri cities, bicycles, and therefore e-bikes, are generally allowed on sidewalks unless specifically prohibited.

Notable exceptions include:

- Lee's Summit: Class 1 and 2 e-bikes may use sidewalks; Class 3 e-bikes may not.
- Fairway: E-bikes may not operate on sidewalks unless the electric motor is disengaged, which effectively prohibits e-bike use.

Missouri law also prohibits on sidewalks within "business districts," defined as areas along a highway[2] where commercial or industrial buildings occupy at least 300 feet of frontage within a 600-foot stretch. E-bikes, therefore, should not be ridden on sidewalks near commercial developments.

E-scooters on Sidewalks

E-scooter sidewalk rules mirror the same ambiguity seen with e-bikes. Kansas state law and the Kansas Standard Traffic Ordinance allow cities to restrict or prohibit sidewalk use, though most have not done so. Missouri state law does not address e-scooters.

The following cities have explicit prohibitions:

- The Unified Government of Wyandotte County and Kansas City, Kansas: Sidewalk use is prohibited.
- North Kansas City, Missouri: Sidewalk use is prohibited under the definition of "motorized scooter."

E-mobility Devices on Trails

Rules governing e-mobility devices on streets and sidewalks do not always apply to off-street trails. Some cities have explicit regulations for shared-use paths, while others do not address the issue. The following table shows which cities and counties allow specific devices on their trails and whether speed limits apply.

2 A "highway" is not necessarily a high-speed roadway. It is "the entire width between the boundary lines of every way publicly maintained within any part thereof is open to the use of the public for purposes of vehicular travel" per RSMo. section 300.010(13).

Table 2: E-Mobility Device Regulation on Shared Use Path Trails					
City/ Organization	**Class 1 E-Bikes Allowed**	**Class 2 E-Bikes Allowed**	**Class 3 E-Bikes Allowed**	**E-Scooters Allowed**	**Speed Limit**
Basehor[3]	Yes	Yes	Yes	No	15 mph
Jackson County Parks & Recreation	Yes	No	Yes	n/a	n/a
Johnson County Parks & Recreation District[4]	Yes	No	Yes	No	n/a
Lee's Summit	Yes	No	No	n/a	n/a
Merriam	Yes	Yes	Yes	No	n/a
Mission	Yes	Yes	No	Yes	15 mph[5]
Overland Park	Yes	Yes	Yes	Yes	20 mph
Parkville	Yes	No	Yes	n/a	n/a
Shawnee	Yes	Yes	No	n/a	n/a

As Table 2 illustrates, regulations are not uniform across the region.

In September 2019, the Kansas City Metropolitan Parks and Recreation Directors Association adopted a position statement on the use of e-bikes, e-scooters, and "motorized vehicles" on trails. This statement included the following recommendations (quoted):

- Prohibit scooters unless the use is approved through an [Other Powered Driven Mobility Device] Policy.
- E-bikes which are pedal assisted in nature ([Class] 1 and [Class] 3) will be allowed to operate on trails; each jurisdiction shall determine the type of trail that e-bikes should be permitted on (i.e. paved shared use paths vs. mountain bike trails).
- Implement a maximum speed limit of 20 mph for all users.
- Encourage the use of proper trail etiquette, through educational signage and other means, which includes slowing down when multiple users are on the path.

Notably, the recommendations would prohibit e-scooters and Class 2 e-bikes on trails. Both are throttle-equipped devices, which seem to be a concern among parks professionals and law enforcement. This approach differs from city street and sidewalk regulations, where Class 2 e-bikes are generally treated the same as Class 1 and Class 3. No city that was studied recognizes only Class 1 and Class 3 e-bikes as electric-assisted bicycles, while excluding Class 2.

3 Allowed if e-bikes are considered as bicycles, per the adopted standard traffic ordinance.
4 Regulation specifies which trails e-bikes are allowed to operate on.
5 While the speed limit on trails is 15 mph, devices allowed on trails cannot be capable of exceeding 20 mph.

Motorized Skateboards and Electric Unicycles

Although this report focuses primarily on e-bikes and e-scooters, other small electric e-mobility devices such as motorized skateboards and electric unicycles are gaining popularity. The Kansas Standard Traffic Ordinance defines motorized skateboards and prohibits them from city streets, but the definition only applies to two-wheeled devices, leaving out one-wheeled devices now seen in many cities.

A few metro area cities have addressed this:

- Lenexa: Defines motorized skateboards as wheeled devices powered by gas or electric motors with a skateboard-type deck, with or without handlebars. They are prohibited:
  - On city streets (sidewalks allowed)
  - At speeds above 15 mph
  - At night (from sunset to sunrise)
- Olathe: Defines motorized skateboards as self-propelled devices without handlebars and with at least one wheel, including electric one-wheel boards, hoverboards and similar devices. Bicycle helmets are required for users under 18. They are prohibited:
  - From city streets (sidewalks allowed except downtown)
  - From trails
  - At speeds above 15 mph
- Shawnee: Defines motorized skateboards as self-propelled devices with a motor and at least one wheel. Users under 18 must use a helmet, and they are prohibited from city streets.

Given these restrictions, especially the requirement to stay on sidewalks and in Lenexa, from using them at night, it appears cities view these devices as recreational rather than transportation tools.

Helmet Laws

As concern grows about crashes involving e-mobility users, especially youths, several cities have enacted helmet requirements.

- Fairway: Operators and passengers under 18 on electric-assisted vehicles must wear a helmet.
- Leawood: All minors under 18 must wear a helmet when using electric-assisted bicycles, e-scooters, electric personal assistive mobility devices, electric unicycles, motorized skateboards, and similar devices on streets, sidewalks, trails, and other public rights-of-way.
- Olathe and Shawnee: Require helmets for users under 18 on motorized skateboards. Shawnee also requires e-scooter users under 18 to wear a helmet.

These ordinances are similar but not identical. As more neighboring cities consider regulations, regional consistency would be beneficial.

PRINCIPLES FOR E-MOBILITY INFRASTRUCTURE

Improving safety for e-mobility users requires examining how well the transportation network accommodates people traveling by e-bike, e-scooter and similar devices. Key questions include whether users must mix with fast-moving vehicle traffic or share narrow sidewalks with pedestrians, creating potential conflicts.

Bicycle planning has long addressed these issues for non-electric bicycles, and many cities recognize that bicycle facilities, such as bike lanes, can also serve e-mobility users. However, bicycle facilities are not standard on all streets, leaving significant gaps in the network, and existing facilities vary in comfort and safety.

While no design guidance exists specifically for e-mobility devices, established bicycle facility guidance remains relevant. The Guide for the Development of Bicycle Facilities (AASHTO, 5th Edition) outlines principles for bike networks that could also serve e-mobility devices.[6]

Safety

E-mobility users are considered "vulnerable roadway users" due to their lower mass and lack of external protection. Effective networks should account for both actual safety (based on crashes and crash risk) and perceived safety (user comfort), as both impact ridership.

Key safety principles include:

- Separating cyclists and e-mobility users from motor vehicles as speeds and traffic volumes increase.
- Addressing intersections, where conflicts are more likely.
- Reducing conflict points and using signal phasing to separate modes.
- Minimizing speed differentials at conflict points to reduce injury severity.
- Maintaining facilities by sweeping debris and clearing snow.

Comfort

Comfort plays a major role in attracting and keeping users in a bicycle and e mobility network. Several design elements contribute to a more enjoyable and accessible experience:

- Separation from motor vehicles is essential, as most riders are uncomfortable traveling near fast-moving, multi-ton vehicles.
- Adequate facility width allows side-by-side riding, supporting the social nature of biking and e mobility.
- Reduced delays at intersections help maintain momentum and minimize the need for complete stops or dismounting.
- Gradual slopes improve comfort when vertical transitions are necessary.
- Natural landscaping, including shade trees along the route, enhances the overall travel experience.

---

6 From the Guide for the Development of Bicycle Facilities, 5th Edition, 2024, by the American Association of State Highway and Transportation Officials, Washington, D.C. Used with permission.

Connectivity

Connectivity "is the ability to get to destinations conveniently, cost-effectively, and reliably." It matters for cyclists and e-mobility device users for the same reasons it matters for motorists: long detours and complicated routes discourage people from making trips at all.

Cities can improve connectivity by:

- Providing direct, short routes that minimize detours.
- Allowing two-way bike travel wherever feasible.
- Improving intersection crossings.
- Creating connections between cul-de-sac neighborhoods and the broader street grid, especially in suburban areas with limited street connectivity.

Legibility

Legibility refers to how easily people can recognize and understand the bike and e-mobility network. Because new bikeways are often unfamiliar to residents, improving legibility helps reduce confusion.

Cities can enhance legibility by:

- Using consistent bikeway design treatments.
- Avoiding mid-route changes in bikeway type.
- Applying clear transition treatments.
- Using pavement markings, paint colors and signals.
- Establishing clear wayfinding systems.
- Maintaining continuous routes that minimize unnecessary turn as a part of the bike/e-mobility network.

A local example: Many cities in the Kansas City region have installed shared-use paths along streets. Without signage or markings, these paths may appear to residents as extra-wide sidewalks rather than part of the bike and e-mobility network. The presence of signage or markings could greatly improve legibility.

AASHTO notes that improving legibility should not "deter innovation or facilities that support the design user." Cities with extensive striped bike lanes should not avoid installing separated facilities out of concern that the network will become confusing. Instead, AASHTO recommends designing each new bikeway type consistently, so its purpose is clear to users.

EDUCATIONAL EXAMPLES

Because policy and infrastructure changes take time, education is the most effective short-term strategy for improving e-mobility safety. Many communities are concerned that some users, particularly young riders, are not following traffic rules or do not fully understand the capabilities of their devices. Parents may be unaware of how quickly throttle-equipped devices, including e-moto-style products, can accelerate. Local police departments have also emphasized that they would prefer to engage in educational efforts before punitively enforcing the law. Below is an example of an educational resource that other cities and organizations in the Kansas City region could emulate.

BikeWalkKC – Johnson County: E-Wheel Safety

BikeWalkKC created a safety flyer for Johnson County ahead of the 2025 holiday season. The flyer highlights the distinguishing features of e-scooters, e-bikes and e-motos, provides safety tips and outlines key risks.

E-WHEEL SAFETY:

WHAT EVERY PARENT NEEDS TO KNOW

E-SCOOTERS | E-BIKES | E-MOTOS

Johnson County is seeing an increase in the use of electric rideables (e-scooters, e-bikes & e-motos), especially among kids and teens. If you're considering one of these e-wheels for your child, know the facts before you buy.

What's the Difference?

Device	Max Speed	Motor	Pedals	Weight
E-scooters	15-30 MPH	Varies	No	approx. 30-50 lbs
E-bikes	up to 28 MPH	up to 750 W	Yes (functional)	approx. 60 lbs
E-motos	40-60 MPH	more than 750W	May have non-functional pedals	approx. 100 lbs

Source: People for Bikes

Safety First

- Use a helmet rated for higher speeds
- Obey traffic laws
- One rider per machine
- Avoid distractions like earbuds or phones while riding
- Equip with working lights and reflectors
- Wear bright or reflective gear when riding
- Practice in a safe, car-free area
- Choose pedal-assist only bikes

Injury Risks

- Kids 10–15 are 5x more likely to crash on an e-bike than any other age group
- Injuries can include concussions, broken bones, and long-term trauma, even with a helmet
- Devices can be modified via phone apps to go faster than legal speeds, increasing danger
- The American Academy of Pediatrics recommend children under 16 should not operate or ride e-scooters, e-bikes and e-motos

Know the Laws

- Know your local laws
- Ride predictably, stay to the right on trails
- Always yield to pedestrians
- Use signals and say "On your left!" when passing
- Never exceed walking speed on sidewalks

JOHNSON COUNTY KANSAS Health & Environment

BIKE WALK KC

City of Leawood – Ride Safe, Leawood

The City of Leawood has produced a brochure on the topic of e-mobility safety. In addition to traffic safety, it also reviews whether e-mobility devices are allowed on ball courts (they are not). The QR code leads to Leawood's web page on the topic.

Minors under 18 must wear a helmet when riding electric-assisted bikes, scooters, electric unicycles, motorized skateboards, and similar devices on streets, sidewalks, trails, and other public rights-of-way in Leawood.

E-Bikes

E-bike Classification Chart

Feature	Class 1	Class 2	Class 3
Pedal Assist	Yes (required)	Yes (optional)	Yes (required)
Throttle Control	No	Yes (10 20 mph)	Often allowed only to 20 mph
Max Assisted Speed	20 mph	20 mph	28 mph
Motor Power Limit	≤ 750W	≤ 750W	≤ 750W
Speedometer	Not required	Not required	Required in most class-law states
Minimum Age (Typical)	None / varies	None / varies	Often 16+ (varies)
Helmet	Required for minors	Required for minors	Required for minors
Path & Trails	Often allowed	Sometimes restricted	Frequently restricted
Roads/Bike Lanes	Allowed	Allowed	Allowed

Electric Bike Classification Chart - Features & Speed Limits (local rules vary)

E-Scooters

- E-Scooters are not to be ridden on any public sport court (Basketball, Tennis, Pickleball, etc.) or any private parking area where signs prohibit the use.
- Applicable City Codes 14-108 = $25 Fine, Code 14-112F

E-Motos/Motorcycles

- **Requirements:** Must be ridden on streets only. These require Kansas registration, vehicle insurance, a valid driver's license with an M endorsement, and the vehicle must have headlights, brake lights, turn signals, and a speedometer.
- **Restrictions:** These are not allowed on sidewalks, bike/pedestrian trails, park parking lots, or soft surfaces. Dirt bikes are not allowed on public or private property in Leawood.
- **Applicable city codes:** 12-203 and 11-108.

Low Speed Vehicle (not a golf cart)

- These must be driven on a city street and require Kansas registration (VIN and Title), vehicle insurance, a valid driver's license, and the vehicle must have headlights, brake lights, turn signals, and speed governed at 25 mph.
- **Applicable Law:** KSA 8-1488 (STO 114.3) -$75 Fine

Golf Carts

- Golf Carts are illegal to drive on streets in Leawood. Carts may cross a street to continue a marked golf cart path and may only be operated between sunrise and sunset.
- **Applicable City Code:** 14-106 (STO 114.4) - $75 Fine

City of Shawnee – All Things Hometown city magazine, spring 2026 issue

The City of Shawnee produces a magazine called All Things Hometown. In this medium, the city can take the opportunity to educate residents on its rules around e-mobility devices.

MOTORIZED SCOOTERS AND UNICYCLES

New regulations are now in effect for operating motorized scooters and unicycles in Shawnee. These devices are now classified alongside motorized skateboards and must follow the same laws.

Key Rules for Riders:

- Riders may **only operate** these methods of transportation **on sidewalks**.
- They **MAY NOT be ridden in the street,** except when **crossing a street or highway**.
- Always **yield to vehicles and pedestrians** before crossing.
- Travel on the **right side** of the sidewalk and **yield to pedestrians**.
- Riders **UNDER 18 MUST wear a helmet** when using a motorized skateboard, scooter, or unicycle.

Reminder:

- **Bicycles propelled by human power** are permitted on sidewalks, bike lanes, trails, and roadways. Riders must follow all rules of the road when operating on the roadway.
- Electric-assisted bicycles are permitted on roadways and trails. **Motor-powered bicycles** may be operated only on roadways. Both must follow all rules of the road.

APPENDIX A: PEOPLEFORBIKES MODEL E-BIKE LAW

PeopleForBikes has developed model e-bike legislation, adopted by most U.S states. Key provisions include:

- Defining the three-class classification system of e-bikes
- Defining an "electric bicycle" as a vehicle to the same extent as a bicycle and giving operators the same rights, privileges and duties as those of non-electric bicycles;
- Exempting e-bike operators of the need to have a driver's license, registration, and other documentation needed for motor vehicles;
- Allowing e-bikes to be ridden in places where bicycles are allowed, including streets, bike lanes, and multi-use paths (but allows authorities to further regulate which classes of e-bike are allowed on multi-use paths);
- Prohibiting persons under age 16 from operating Class 3 e-bikes.

APPENDIX B: KANSAS AND MISSOURI MODEL TRAFFIC ORDINANCES

Kansas and Missouri each have model traffic ordinances that cities can adopt by reference.

- In Kansas, the Kansas League of Municipalities produces the Standard Traffic Ordinance annually. It defines "electric-assisted bicycles" and "electric-assisted scooters" and includes traffic rules for both.
- In Missouri, the Model Traffic Ordinance is written into state law, under Title XIX, Chapter 300 of the Revised Statues of Missouri.

These model ordinances are where many municipal-level e-mobility regulations come from, especially for smaller cities. Larger cities often create their own tailored laws. Even when a city adopts a model ordinance, it can modify it through additional local legislation.

APPENDIX C: MODEL TRAFFIC ORDINANCE ADOPTION BY CITIES

Kansas Cities

Note: not every Kansas-side city in MARC's planning region was reviewed. Cities may also have amended the model traffic ordinance since adoption. The edition adopted is in parenthesis.

- Basehor (2025)
- Bonner Springs (2023)
- De Soto (2025)
- Edgerton (2025)
- Edwardsville (2025)
- Fairway (2025)
- Gardner (2023)
- Lansing (2024)
- Leavenworth (2025)
- Leawood (2023)
- Lenexa (2025)
- Merriam (2025)
- Mission (2025)
- Mission Hills (2024)
- Mission Woods (2024)
- Prairie Village (2024)

- Roeland Park (2024)
- Spring Hill (2025)
- Westwood (2024)
- Westwood Hills (2025)

Missouri Cities

Note: not every Missouri city in MARC's planning region was reviewed. Cities may also have amended the model traffic ordinance since adoption.

- Belton
- Blue Springs
- Gladstone
- Greenwood
- Lake Tapawingo
- Lake Winnebago
- Pleasant Valley
- Raymore

APPENDIX D: CODE CITATIONS

Definition of E-Bike	
Jurisdiction	**Code/Ordinance/Source**
Grandview	52-1 (if definition of "motorized bicycle" applies)
Kansas City, Missouri	70-1
Lake Waukomis	300.01
Lee's Summit	29-1
Lenexa	3-8-A-1(B)
North Kansas City	10.04.010
Northmoor	300.010
Oak Grove	300.010 (if definition of "motorized bicycle" applies)
Olathe	10.01.001
Overland Park	12.04.001
Parkville	300.010
Revised Statutes of Missouri (Model Traffic Ordinance)	300.010
Shawnee	10.02.010
Standard Traffic Ordinance for Kansas Cities (2023, 2024, 2025)	Sec. 1
Unified Government of Wyandotte County and Kansas City, Kansas	35-1
Weatherby Lake	300.010

E-Scooter Speed Maximum	
Jurisdiction	**Code/Ordinance/Source**
Kansas City, Missouri	70-1
Lee's Summit	29-1
Lenexa	3-8-A-1(R)
North Kansas City	10.04.010
Olathe	10.01.135.1
Overland Park	12.04.135
Unified Government of Wyandotte County and Kansas City, Kansas	35-1

E-Bike Age Restriction	
Jurisdiction	**Code/Ordinance/Source**
Fairway	10-67-2 (per Ord. 1833)
Standard Traffic Ordinance for Kansas Cities (2023, 2024, 2025)	Sec. 135(g)
Kansas Statutes Annotated	8-1592b
Revised Statutes of Missouri (Model Traffic Ordinance)	307.194(8)(1)

E-bike Operation on City Streets	
Jurisdiction	**Code/Ordinance/Source**
Lee's Summit	29-519
Olathe	10.01.135
Overland Park	12.04.135

E-scooter Operation on City Streets	
Jurisdiction	**Code/Ordinance/Source**
Basehor	44-121, 44-125
Leavenworth	Ord. 8267
Lenexa	3-8-A-1(R)
Olathe	10.01.135.1
Overland Park	12.04.071
Shawnee	10.04.109.1(A)

E-Bike Allowance on the Sidewalk	
Jurisdiction	**Code/Ordinance/Source**
Fairway	10-67-2 (per Ord. 1833)
Lee's Summit	29-518, 29-520
Revised Statutes of Missouri (Model Traffic Ordinance)	300.347(1), 300.010(4), 300.010(13)

E-Scooter Allowance on the Sidewalk	
Jurisdiction	**Code/Ordinance/Source**
North Kansas City	10.60.050(H)
Unified Government of Wyandotte County and Kansas City, Kansas	35-697(d)

E-Mobility Device Allowance on Trails	
Jurisdiction	**Code/Ordinance/Source**
Basehor	2025 KS STO, Sec. 135(f), city code 30-68(a)(3)
Jackson County Parks + Rec	Jackson County Code 5013.5
Johnson County Parks & Recreation District	Johnson County Code of Regulations for the Park and Recreation District, 1.2.1, 2.1.1; JCPRD web page: https://jcprd.com/1285/E-Bikes-in-the-Parks
Lee's Summit	19-82, 29-1, 29-520(C), 29-520(E), email communication
Merriam	47-90
Mission	230.085(C)(4), 230.090(A), 230.090(C)
Overland Park	10.08.144
Parkville	No formal policy; email communication
Shawnee	City magazine – All Things Hometown Spring 2026, page 6

Motorized Skateboards and Electric Unicycles	
Jurisdiction	**Code/Ordinance/Source**
Lenexa	3-8-A-1(B), 3-8-A-1(J)
Olathe	10.01.001, 10.01.135.2, 10.01.136
Shawnee	10.02.010(KKK), 10.04.109.1

Helmet Laws	
Jurisdiction	**Code/Ordinance/Source**
Fairway	10-67-2 (per Ord. 1833)
Leawood	City of Leawood webpage: https://www.leawood.org/m/newsflash/home/detail/134
Olathe	10.01.135.2(b)(3)
Shawnee	10.04.109.1(C)