

15-10010 - Shared-Use Mobility System Permit Requirements - Draft 1-9- 19 (003)

Charlotte Department of Transportation

1/3/2019

Revised 5/21/2018 (Added e-scooters)

Revised 6/11/2018 (Altered Requirement M11)

Revised 11/1/2018 (Removed References to Pilot Program)

Draft 1/9/2019 (For Consideration with Ordinance Changes)



INTRODUCTION

Based on pilot program ridership data, survey responses, and experience working with dockless bike and e-scooter operators, the City has determined that dockless bikes and e-scooters are a potentially valuable addition to transportation choices available to Charlotte residents and visitors. City Code changes to be considered in early 2019 will clarify how e-scooters are defined and give guidance to scooter riders on appropriate locations to ride based on the location, speed limit, and roadway characteristics.

The following sections describe the requirement for a vendor to operate either a dockless bike or dockless e-scooter fleet. No vendor may operate a fleet without a valid Shared-Use Mobility System Permit.

FLEET REQUIREMENTS

- Every bicycle and e-scooter shall have displayed on the device:
 - *Unique identifier* on the e-scooter stem that is visible to the eye at a distance of 10 feet. Bicycles shall also have a unique identifier visible at a distance of 10 feet.
 - *A customer service phone number* that is in-service during all operating hours and clearly displayed and visible to the user.
- Bicycle fleet operators shall have a *minimum fleet of 200 bicycles* and a *maximum of 500 bicycles*. Electric bicycles and traditional bicycles are counted equally toward this minimum.
- E-scooter fleet operators shall have a *minimum fleet of 50 e-scooters* and a dynamic maximum as described below.
 - The e-scooter maximum fleet size shall be determined by the average e-scooter trips per day (TPD) on a 30-day rolling average.
 - When the TPD exceeds 3.0, additional e-scooters may be deployed in increments of 50 at a time.
 - When the TPD drops below 2.0, e-scooters must be removed from the right-of-way in increments of 50 at a time.
- E-scooter speeds shall be limited to a maximum speed of 15 miles per hour.

DEVICE REQUIREMENTS

- All bicycles used in systems issued a permit shall meet the standards outlined in the Code of Federal Regulations (CFR) under Title 16, Chapter II, Subchapter C, Part 1512 – Requirements for Bicycles. Additionally, permitted systems shall meet the safety standards outlined in ISO 43.150 – Cycles, subsection 4210.
- All e-scooters in systems issued a permit shall meet equivalent safety standards as those outlined in the Code of Federal Regulations (CFR) under Title 16, Chapter II, Subchapter C, Part 1512 – Requirements for Bicycles. When powered solely by a motor, e-scooters should be incapable of exceeding 15 mph. Additionally, the City may terminate any permit issued if the battery or motor on an e-scooter is determined by CDOT to be unsafe for public use.
- Any permitted electric bicycles shall meet the National Highway Traffic Safety Administrations (NHTSA) definition of low-speed electric bicycles; and shall be subject to the same requirements as ordinary bicycles (described above). This means, among other requirements, that electric bicycles shall have fully operable pedals, an electric motor of less than 750 watts, and a top motor-powered speed of less than 20 miles per hour when operated by a rider weighing 170 pounds. Additionally, the City may terminate any permit issued if the battery or motor on an electric bicycle is determined by CDOT to be unsafe for public use.
- All bicycles and e-scooters shall meet the North Carolina General Assembly (NCGA) requirements for lights during hours of darkness, including a front light that emits white light and a rear red reflector as described in G.S. 20-129, and all other applicable requirements of state law.
- Operators shall not use bicycles/e-scooters for the sale or display of third-party advertising.

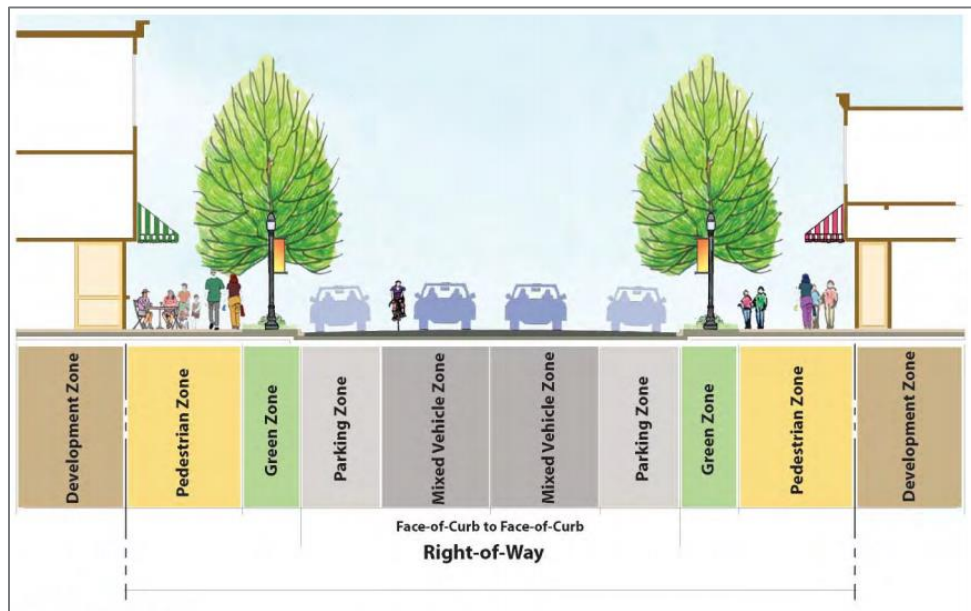
MAINTENANCE, OPERATIONS, AND APP FUNCTIONALITY

- Any inoperable or unsafe bicycle/e-scooter shall be removed from the right-of-way within 24 hours of notice by any means to the operator by any individual or entity, and shall be repaired before placing back into the City right-of-way.
- E-scooters shall be collected nightly for recharging and no e-scooter trips may be initiated after 9PM. Full charged e-scooters may be deployed the next morning unless conditions otherwise warrant. Operators shall perform, at a minimum, one afternoon fleet inspection to rebalance and properly park e-scooters.
- If notified of public access and safety concerns by the City, operators shall rebalance bicycles/e-scooters within two hours.
- Operators shall provide in-app messaging that notifies their users of the following:
 - People operating bicycles/e-scooters shall adhere to all applicable local, state, and federal laws regarding motorized and non-motorized vehicles.
 - People operating bicycles/e-scooters shall yield to pedestrians.
 - People shall operate bicycles/e-scooters safely and park responsibly.
- Operator shall provide app functionality that permits users to contact operator directly and provide feedback on inappropriate riding, parking, etc.
- CDOT and E-scooter vendors will explore how fleets can be deployed to continue to support first and last mile transit trips along bus and rail transit corridors.
- The City intends to explore dynamic pricing (fees) during Q1 2019. The City will work with individual vendors to develop this dynamic pricing model.

PARKING

This permit is only valid for operations within the right-of-way managed by the City of Charlotte. Additional zones may be established; for example, locations within parks, publicly-accessible plazas, off-street parking lots/garages, or campuses upon consultation with appropriate governmental entities and/or landowners.

- Bicycles/e-scooters shall only be parked within the pedestrian and green zones (see sketch below) and shall be upright when parked.
- In no case shall the placement of bicycles/e-scooters reduce the width of pedestrian zone to less than six feet.
- Bicycles/e-scooters are not allowed on the public sidewalks located within the area bounded by Church Street, Stonewall Street, College Street and 7th Street, or as otherwise defined by Section 14-251 of City Code, excepted as needed to park properly.



- Restrictions to eligible parking zones:
 - Bicycles/e-scooters shall not be parked in any vehicular travel lane or bicycle lane.
 - Bicycles/e-scooters shall not be parked at the corner curb sight radius area of sidewalks and shall not conflict with the required intersection sight triangle distance (as defined in [Sec. 12.109](#) of Charlotte's City Code).
 - Bicycles/e-scooters shall not be parked on blocks where the pedestrian zone is less than six feet wide, or in any place where there is no planting strip/amenity zone directly adjacent to the parked bicycle.
 - Bicycles/e-scooters shall not be parked on blocks without sidewalks.
 - Bicycles/e-scooters shall not be parked in the pedestrian zone adjacent to or within:
 - Parklets or sidewalk dining;

- Transit zones, including bus stops, shelters, passenger waiting areas and bus layover and staging zones, except at existing bicycle racks;
- Loading zones;
- Accessible parking zones and associated loading zones;
- Street furniture that requires pedestrian access (for example - benches, parking pay stations, bus shelters, transit information signs, newsracks, permanent bike share docks, etc.);
- Curb ramps and signal push buttons;
- Entryways, exits and must maintain a 10 foot clearance; and
- Driveways.
- The City reserves the right to determine certain areas where bicycle/e-scooter parking is prohibited.
- Operator shall remove any bicycle/e-scooter that is parked in one location for more than seven consecutive days. If the bicycle/e-scooter is not removed by the Operator, the City may remove the device and take it to a City facility for storage at the Operator's expense.

DATA SHARING

- Operators shall maintain a record of maintenance activities, including but not limited to unique identifier and maintenance performed. These records shall be made available to CDOT upon request.
- All permitted operators shall provide CDOT with a monthly data report containing the items listed below. Operators will be provided with a monthly data report template. For each month's data report, this template should be filled out completely and submitted to CDOT staff by the end of business on the 7th day of the following month. For example, the monthly data report for May will be due by 5pm on June 7th.
- If an Operator has bicycles and e-scooters in their fleet, they are required to submit two separate data reports, one report specific to bicycles and one report specific to e-scooters.
- The date that operators will be required to report is as follows:
 - Total trips for the month, and for each week in the month
 - Total trip distance for the month, quarter and year
 - Average distance and duration of each trip

- Number of bikes in circulation, for each week in the month
 - Daily trips per bike/e-scooters (Average number of trips per bike/e-scooters per day)
 - Number of bikes/e-scooters vandalized, damaged, and repaired
 - Number of users in the Charlotte area, according to frequency of use
 - New users (riders who took their first trip but only used a bike/e-scooter once)
 - 1-3 trips
 - 4-8 trips
 - 9-15 trips
 - 16-30 trips
 - 31-60 trips
 - More than 60 trips
 - Total number of complaints, total number of complaints resolved, and number of complaints by type:
 - Bikes/e-scooters blocking sidewalk
 - Bikes/e-scooters on private property
 - Bike/e-scooters is vandalized
 - Bike/e-scooters is inoperable
 - Other
- Operator shall provide CDOT with anonymized real-time data (information that is delivered immediately after collection) on the entire Charlotte fleet, upon request.
- Operator shall provide the following anonymized data for each trip record to inform and support safe and effective management of the system.
1. Rider profile:
 - a. Gender - reported by male, female, and other.
 - b. Age - reported based on the following age groups: 5-17, 18-24, 25-34, 35-44, 45-54, 55-64, 65 and over.

2. For each trip taken:

| Field Name | Format | Description |
|-----------------------------|--------------------------------|---|
| Operator Name | [Operator name] | n/a |
| Type of bicycle | "Standard" or "Electric" | n/a |
| Trip record number | xxx0001, xxx0002, xxx0003, ... | 3-letter Operator acronym + consecutive trip # |
| Trip duration | MM:SS | n/a |
| Trip distance | Feet | n/a |
| Start date | MM,DD,YYYY | n/a |
| Start time | HH:MM:SS (00:00:00- 23:59:59) | n/a |
| End date | MM,DD,YYYY | n/a |
| End time | HH:MM:SS (00:00:00- 23:59:59) | n/a |
| Start location | Census block | n/a |
| End location | Census block | n/a |
| Bicycle/e-scooter ID number | xxxx1, xxxx2, | Unique identifier for every bicycle/e-scooter, determined by the Operator |

3. For bicycle/e-scooter availability:

| Field Name | Format | Description |
|-------------------------|-------------------------------|-------------|
| GPS Coordinate | X,Y | n/a |
| Availability duration | Minutes | n/a |
| Availability start date | MM, DD, YYYY | n/a |
| Availability start time | HH:MM:SS (00:00:00- 23:59:59) | n/a |