

City of Alexandria, Virginia

MEMORANDUM

DATE: DECEMBER 4, 2019

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

THROUGH: MARK B. JINKS, CITY MANAGER

FROM: YON LAMBERT, AICP, DIRECTOR, TRANSPORTATION & ENVIRONMENTAL SERVICES

SUBJECT: DOCKLESS MOBILITY PILOT PROGRAM

This memorandum is a summary of changes made to the Dockless Mobility Pilot Program recommendations that were presented at the City Council Legislative Session on November 26, 2019 and a compilation of responses to questions at that meeting or prior to the meeting by individual Councilmembers.

The following changes have been made to the recommendations as a result of the Council feedback:

City Code Amendment:

- The definition of micromobility devices has been updated to replace “human powered” with “electric, battery, or gas-powered”. Additionally, a reference was added to this definition that notes it does not apply to wheelchairs or other power-driven mobility devices (the State Code definition for devices used by persons with mobility issues). Finally, staff has confirmed that Segways are included in this definition and would be subject to the same limitations as other micromobility devices.

MOU

- The Memorandums of Understanding have been updated to require 30% of each operators’ fleet be deployed in areas defined by the City. This includes requires that 15% of each operator’s fleet be deployed west of Quaker Lane and east of I-395, another 10% of vehicles deployed west of I-395, and 5% in the Arlandria neighborhood. During Phase II, the City may adjust these locations and percentages depending on how effective they are in improving access to these devices throughout the City.
- In response to concerns expressed about environmental sustainability, the operators shall be required to provide information about charging vehicles and frequency, origin of device manufacturing, and disposal/recycling methods for devices and associated parts

- The operators will be encouraged to provide information about decommissioned devices and recycled/disposed batteries from their fleet in the DMV region during the pilot.
- If necessary, the City Manager will be authorized to extend the terms of the MOU past December 31, 2020 to accommodate a process to establish a permanent licensing and regulation program. This will ensure there is no lapse in regulation if additional time is needed for a new process (such as a procurement or permitting process).

Q: Can the City modify MOUs to ensure better information is provided on the environmental impact of scooters during the next phase of evaluation?

A: Shared electric scooters are a new form of technology, and – other than information provided by the companies themselves – there is little objective data or scholarly research at this time that can accurately quantify the environmental impact of electric scooters. Currently, estimations on the environmental impacts are based on factors such as distance traveled by vehicle to pick up a scooter for charging, whether or not the scooters are picked up each night and the density of scooters in an area. To address Councilmembers’ concern and to gather more information on this new technology, staff has added the following requirement to the MOU: As part of the operations plans required in the MOU, the operators shall be required to provide information about methods for charging and frequency, origin of device manufacturing; and disposal/recycling methods for devices and associated parts. Additionally, operators will be encouraged to provide information about the number of decommissioned devices and recycled/disposed batteries in the region during the length of the pilot.

One report by North Carolina State University Civil Engineering Department (Joseph Hollingsworth, Brenna Copeland, Jeremiah X Johnson) published in August 2019 states:

“This study clearly demonstrates that there is the potential for e-scooters to increase life cycle emissions relative to the transportation modes that they displace ... cities and e-scooter companies alike can use this study to further explore life cycle impacts of e-scooters with a higher level of detail in the future. Claims of environmental benefits from their use should be met with skepticism unless longer product lifetimes, reduced materials burdens, and reduced e-scooter collection and distribution impacts are achieved. (p9)”

“The most important parameter that would vary across locations is the collection miles driven per scooter mile. Densely populated metropolitan areas may enable higher densities of e-scooters and lower collection driving distances per scooter. Conversely, sparsely populated or sprawling areas would likely necessitate higher collection miles driven. Our sensitivity analysis shows that reduced collection distances of 0.6 miles per scooter reduce the life cycle CO2 emissions by 27%, while longer driving distances of 2.5 miles per scooter increase life cycle CO2 emissions by 27%.” (p8)

“Allowing e-scooters to remain in public areas overnight would decrease the automobile burdens associated with picking up fully charged or nearly fully charged e-scooters. Requiring central management or improved e-scooter collection processes could reduce the auto-miles traveled for collection and distribution. Additionally, cities could enact or enforce anti-vandalism policies to reduce e-scooter misuse or mistreatment which can

result in short lifetimes (and thus high materials and manufacturing burdens per passenger-mile traveled).” (p9)

“The scooter companies also can take meaningful action to reduce the life cycle burdens of their products. They can reduce collection and distribution burdens by incentivizing or requiring the use of efficient automobiles. In addition, they could reduce vehicle miles traveled for collection and distribution through centralized management or by allowing chargers to ‘claim’ e-scooters to eliminate unnecessary and competitive driving during daily collection.” (p9)

Study assumes 0.5 years to 2 years for scooter lifetime in lifecycle analysis, whereas Alexandria scooter companies have indicated that they plan for their devices to be used for a range of 1 to 1.5 years. “In our analysis, we test a wide range of plausible scooter lifetimes (0.5–2 years), informed by battery lifetimes, the manufacturer warranty, and reports of damage under shared usage programs [26, 30].” (p4)

Q: How did staff determine the equity requirements?

A: With the data from the Phase I pilot, staff was able to get a better understanding of where e-scooters were being deployed and used. It was also very clear that Council wanted to see a requirement for more equitable distribution in the Phase II Pilot, and staff agrees. Analysis of 2019 deployment data overlain with Alexandria small area plan areas showed that approximately 38% of scooters are deployed in Old Town, 12% near Braddock Metro, and 8% near Kind Street Metro while less than 1% are deployed in several neighborhoods of the City. Providing scooter access for all is a priority for the Phase II Pilot. Staff evaluated the data as well as policies from other cities to develop a proposals for new requirements for deployment that has been included as part of the Phase II recommendations.

The proposed requirements would require operators to deploy 30% of their total fleets to areas defined by the City: 10% west of I-395, 15% between I-395 and Quaker, and 5% in Arlandria (bound by Commonwealth Ave, Four Mile Run, and W Glebe Road).

Q: What are examples of where the City allows private use of public ROW that the City does not charge for?

A: There are many locations around the City where specific uses get priority access to the curb in order to mitigate issues those uses may cause without dedicated space. Examples include:

- Motorcoach loading spaces: There are currently 6 locations for motorcoach loading representing 625 feet of curb space for this use (approximately 30 parking spaces). The most prominent location is the entire block of King Street in front of Market Square that eliminated metered parking to created dedicated location space. Motorcoach operators are not charged to use these spaces and without these designated areas there would likely be more unloading in the middle of the street or in locations not appropriate for motorcoaches.*
- Loading zones: Businesses can request a loading zone be created near their business to accommodate deliveries and other loading activities. While these spaces are not signed for their specific use, they are limited to just loading activities. At this time, there is no charge for these spaces.*

- *Valet zones: There are five on-street valet zones that have been approved in order to provide off-street parking to patrons of the business. At this time, there is no charge for these spaces since providing a process to encourage off-street parking improves the on-street parking conditions in general.*
- *Taxi loading areas: There are a few locations where taxis are given priority at the curb in order to facilitate locations where there are typically frequent taxi trips.*

Q: How many trips were reallocated from walking and transit?

A: Staff does not have data available to directly calculate how many trips were reallocated from transit and walking to scooter. Two data points give staff some understanding of the relationship between scooter trips and transit / walking trips.

1. *Analysis of scooter data from January through August 2019 indicated that approximately 40% of scooter trips started or ended in areas with high frequency transit. Specifically, 20 to 25% of scooter trips started or ended near a Metro station (in Alexandria) prior to the Metro shutdown (January through May).*
2. *A non-scientific feedback form was put out to the community in August 2019 (Appendix A) to gain insight into the program. Question 5 of the Feedback Form asked scooter users, "If there were no e-scooters in the City, how would you have taken most of these trips? Please select your top 2." Responses below are from a total of 980 respondents to this question (133 skipped the question).*
 - *Bus: 66*
 - *Metro (prior to the shutdown): 105*
 - *Walked: 488*

Other possible responses to this question are included below for context.

- *Personal vehicle (as driver or passenger): 453*
- *Uber, Lyft, or taxi: 407*
- *Bicycle: 125*
- *I would not have made the trip: 169*
- *Other: 15*

While it would be possible to conduct a scientific survey to determine the distribution of mobility options that e-scooters replace, this would require additional resources in both staff time and survey costs. Staff currently estimates the staff time and survey costs for a scientific survey is in excess of \$50,000. If adopted, this amount would need to be incorporated into the fiscal impact assessment of the scooter program and considered in the FY 2021 budget process.

Q: What demographic data do companies collect about scooter riders?

A: Staff contacted all operators in the City to better understand what demographic data is collected about scooter riders. All companies stated they are not collecting demographic data (age, gender, race/ethnicity, etc.). One company noted that though they do not currently collect demographic data, they intend to do so in the future. Several companies

offered to, or were open to, sending a survey to their users on behalf of the City to obtain demographic data.

Aside from scooter company-collected demographic data, two non-scientific feedback forms were put out to the community in August 2019 (Appendix A) and October 2019 (Appendix B). Respondents were asked whether they have ridden a scooter (yes or no) as well as a series of demographic questions. Responses are not indicative of all scooter users but can provide insight and are included in Attachment 1.

Q: What are enforcement ticket costs and what is the enforcement process?

Enforcement ticket costs varies based on the offense. The penalty for scooter riders would be consistent with users of other modes (drivers of cars or bicycle riders) who are charged with traffic violations. The fines are set by Virginia state code and generally range between \$25 and \$150 per violation. The enforcement process is also consistent with any other traffic violation: The individual can pay the ticket or they can appear in General District Court if they wish to appeal the ticket.

Q: What other parking restrictions could the City add to Code, such as San Francisco's requirement that users park between two fixed objects?

A: San Francisco's Powered Scooter Parking Requirements (2018) and Arlington County's parking restrictions (2019) are included as Attachment 4.

San Francisco's program states:

1. Only park on the area of the sidewalk closest to the curb or in specially-designated areas, such as bike racks. Scooters parked along the curb should be in line with and between fixed objects (trees, trash cans, bike racks, newspaper racks, etc.). Make sure to leave enough space for other sidewalk users to continue using those objects or amenities.

Arlington County's program states:

The regulations prohibit parking the devices on sidewalks other than in a rack, against the curb, or against street signs or light posts or at the curb at the back edge of the sidewalk, where they will not obstruct pedestrians. They cannot be parked on streets, other than against a curb or in a corral marked and designated for the purpose. Neither can they obstruct curb ramps, pedestrian access within bus stops or fire access, or on private property without the owner's permission, among other restrictions.

A violation of these newly established restrictions on parking will be subject to a \$50 civil penalty if the company fails to remedy within two hours of it being reported.

Q: What is the age restriction to ride a scooter?

A: Va. Code 46.2-908.1 restricts the minimum age to ride an electric scooter as 14 years old, unless the user is accompanied by someone 18 years or older with a driver's license.

Q: What helmet laws are in place?

A: Va. Code 46.2-910; 46.2-906.1 authorizes local ordinance for helmets for e-bikes, Segways, and bikes only (not scooters). Therefore, the City cannot create a new helmet ordinance for scooter riders. Additionally, cannot be included in the MOU.

Q: Will there be a different speed limit for e-bikes than scooters?

A: The existing MOU already has an e-bike speed limit of 20 mph which is consistent with the Consumer Product Safety Commission definition of low-speed electric bicycle. Staff does not recommend any changes to this limit.

Q: What happens if a device is parked improperly and not removed?

A: An improperly parked device can be impounded after 2-hours. The impound fee was established based on consultation with the City Attorney's Office and considering resource costs for operations staff who would have to impound the vehicle. The fee must be in-line with the cost for impounding the device, and \$150 per device equates to time spent and storage of the vehicle. Staff can continue to work with the companies to provide information on proper parking.

Q: What does "15,000 active users in Alexandria" entail and how is it determined?

A: An "active user in Alexandria" is based on users registered in an app with an Alexandria zip code. This would not include tourists or users from other jurisdictions riding in Alexandria. For Phase 2, the MOU requires companies to provide number of trips by user zip code, so we would be able to roughly identify the percent of trips taken by users who don't live in the DMV region, which would include non-regional tourists, those who recently moved here, etc.

Q: Why does Attachment 6 Appendix C (page 53) Availability Data note that only four of 7 companies provided "sufficient information" to calculate availability data? Will new reporting requirements address this?

A: Yes, scooter availability in the report was calculated using MDS data and only four of 7 companies provided MDS to RideReport voluntarily. Staff is recommending that the 2020 MOU require MDS from all operators to address this.

Q: Are current scooter models designed and equipped for one person?

A: Yes.

Q: Washington D.C. has a separate fee to operate in the Right-of-Way. Does the proposed MOU have something similar?

The proposed program fee is \$10,000 per operator plus \$75 per device. This fee is inclusive of all program related costs to the City, including a fee to operate in the ROW, install corrals, manage the day to day aspects of the program, etc.

Q: Will the MOU or Code require a horn or bell on devices, and user education on how to correctly use it?

A: The existing MOU already requires that scooters have a bell. Staff is not proposing any changes to that language, so the proposed MOU for 2020 would require scooters to have a bell. The devices are spot checked for bells and other safety equipment approximately once per month.

Q: How will Staff know if operators are not complying with distribution requirements? Will the City fine operators that do not comply with distribution requirements, like Chicago?

A: Staff has proposed working with a 3rd party data aggregator in 2020, in order to monitor the percent of a company's fleet (or overall scooters in the City) deployed in designated areas, such as the distribution areas between Quaker and I-395 and west of I-395. This method can also be used to monitor deployments near transit or other activity centers. Staff will know whether or not operators are complying with the distribution requirement.

The City will provide written warning to operators that are not meeting requirements. Upon further non-compliance, Staff can rescind permits so that a company is no longer able to operate in the City. The MOU allows permits to be rescinded if the requirements are not met.

Q: Does the City require scooter companies to provide liability issuance or a performance bond?

A: The City required the companies to provide insurance as stated in the first pilot MOU, and will continue this in Phase II. The City also required companies to maintain a \$5,000 surety bond in the Phase I Pilot, and this will increase to \$10,000 in Phase II.

Attachment 1. August and October 2019 Feedback Form Demographic Data

August 2019 Feedback Form

2,914 respondents; 1,801 had not ridden a scooter; 1,113 have ridden a scooter

Q16: Home Zip Code

- 22314: 47%
- 22301: 16%
- 22305: 8%
- 22304: 7.8%
- 22302: 5%
- 22303, 22311, 22306, 22310, 22307, 22308, 22315, 22202: 0.6-2.3%
- Etc.

Q17: Work Zip Code

- 22314: 22.5%
- 22202: 3.5%
- 20001, 22301, 22304, 20006, 22201, 200005, 22302, 20036, 20007: 1-2.3%
- Etc.

Q18: Age (874 respondents)

- 18 and under: 1.4%
- 19-30: 26.1%
- 31-40: 40.8%
- 41-50: 19.6%
- 51-60: 10.1%
- 61-70: 1.6%
- 70 and over: 0.3%

Q19: Please identify your race/origin by selecting all that apply:

- 81.5% white (European origin)
- 5.6% black or African American
- 7.4% Hispanic, Latino, or Spanish origin
- 1.3% American Indian or Alaska Native
- 2.9% Asian
- 1.8% South Asian
- 0.8% Native Hawaiian or Pacific Islander
- 1.5% Middle Eastern
- 6.6% Other

Q20: With what gender do you most closely identify?

- 55.6% Man
- 37.9% Woman
- 0.5% Transgender
- 0.9% Non-binary

- 0.1% *Don't Know*
- 5.0% *Prefer not to answer*

Q21: *Do you have access to a motor vehicle that you or someone in your household owns?*

- 8.2% *No*
- 91.8% *Yes*

Q22: *Do you identify with having or living with a disability?*

- 5.8% *Yes*
- 90.3% *No*
- 3.9% *Prefer not to answer*

Q23: *Please describe the nature of your disability. Select all that apply:*

- 51% *Mobility or dexterity (e.g. walking, climbing stairs)*
- 15.7% *Deaf or hard-of-hearing*
- 5.9% *Visual (e.g. blind or low vision)*
- 3.9% *Speech or communication*
- 35.3% *Other*

The October Feedback Form yielded the following results:

Q9: *Home Zip Code*

- 22314: 42.3%
- 22301: 22.8%
- 22305: 8.1%
- 22302: 6.4%
- 22304: 2.0%
- 32304: 1.3%
- *Etc.*

Q10: *Work Zip Code*

- 22314: 29.6%
- *N/A*: 19.4%
- 22301: 3.9%
- 22202, 22302, 20003, 22305, 20006, 22304, 20001, 22209, 20024, 20005, 20004, 22134: 1-2.5%
- *Etc.*

Q11: *Age*

- 18 and under: 1%
- 19-30: 21.5%
- 31-40: 31.4%
- 41-50: 23.4%
- 51-60: 13.5%
- 61-70: 8.3%

- 70 and over: 1%

Q12: Please identify your race/origin by selecting all that apply:

- 87.2% white (European origin)
- 3.4% black or African American
- 5.2% Hispanic, Latino, or Spanish origin
- 1.0% American Indian or Alaska Native
- 1.7% Asian
- 1.0% South Asian
- 0.7% Native Hawaiian or Pacific Islander
- 3.4% Other

Q13: With what gender do you most closely identify?

- 56.7% Man
- 38.0% Woman
- 0.0% Transgender
- 0.7% Non-binary
- 0.3% Don't Know
- 4.3% Prefer not to answer

Q14: Do you have access to a motor vehicle that you or someone in your household owns?

- 8.9% No
- 91.1% Yes

Q16: Do you identify with having or living with a disability?

- 6.0% Yes
- 88.7% No
- 5.3% Prefer not to answer

Q23: Please describe the nature of your disability. Select all that apply:

- 40.9% Mobility or dexterity (e.g. walking, climbing stairs)
- 31.8% Deaf or hard-of-hearing
- 9.1% Visual (e.g. blind or low vision)
- 0% Speech or communication
- 31.8% Other