

December 11, 2020

Via electronic mail

Jonathan Rogers

ATTN: DC AV Interagency Working Group

Office of the Deputy Mayor for Operations and Infrastructure

John A. Wilson Building

1350 Pennsylvania Avenue, NW, C-Level, Suite C-06

Washington, DC 20004

Dear Mr. Rogers,

DMV Disability & Sr Community (DMV Group) members and friends write in response to the DC Autonomous Vehicle (AV) Interagency Work Group's request for recommendations regarding AV testing rules. The undersigned seek to ensure that the program is accessible, safe and equitable, and consistent with the DC Autonomous Vehicles Principles Statement.

The DMV Group is a diverse alliance of advocacy-minded, seniors, people with disabilities and allies in the DC region who came together at the beginning of the COVID pandemic. We have sought to create and maintain a communal, remote space of uplift and support for one another, in a fluid and ongoing manner that is affirmatively anti-racist.

In order to ensure equitable and accessible AV service the undersigned recommends the following be included in any testing permits:

1. Access, Equity and Safety Plan Requirements, Including Community Engagement
2. Safety, Access and Equity Elements
3. Performance Measurement Requirements & an Accessibility Fee
4. Equivalent, Accessible AV Service Expectations for Deployment, and
5. Potential Incentives

I. Background

The Need for Increased Mobility in the District

There are roughly 80,000 non-institutionalized people with disabilitiesⁱ and 120,000 residents 60 and olderⁱⁱ living in DC (11% and 17% respectively). Affordable, accessible transportation is critical for the District's residents and visitors with disabilities and seniors to travel to work, to

school, to contribute to and participate in their communities, to support and spend time with family and friends, and live our lives to the fullest.

Manufacturers and transportation providers are racing to develop, test and deploy autonomous shuttles and passenger vehicles. AVs have the potential to drastically improve access for seniors and people with disabilities, including members of the blind and low vision, Deaf and hard of hearing, intellectual, developmental and cognitive disability communities, people with physical disabilities, including wheelchair users, and people with neurological conditions including epilepsy and seizure disorders. However, the promise and safety of AVs will only be realized if the vehicles and the surrounding infrastructure are fully accessible, the safety elements consider the needs of *all* people with and without disabilities, and equitable service provision is ensured.

Upholding the Promise: DC's Stated Commitment to Equity and Accessibility

We are pleased with the DC AV Principles Statement and its commitment to safety, accessibility and equity. We expect the statement to be used to leverage support for increased access to mobility and equitable planning, and look forward to seeing these principles reflected in permitting requirements. We agree with the statement that "AVs are merely a means to achieve our broad goals." We are heartened by the DC government's statement that, "the rollout of AV technology should help decrease mobility inequity in DC." And, "DC should strive to ensure that AVs have accommodations that can help improve the mobility of disabled populations, elderly populations, and other mobility-limited populations." Though we believe that DC government should *require* AVs that are inclusive of people with disabilities, including those who use wheelchairs and other mobility devices. And we echo the AV Statement's claim that AV policies, "are long-term decisions and changes, so should take into consideration the effects upon different populations of residents, including mobility options for different populations."

In order to fulfill the commitment in the AV statement, DDOT must make clear to stakeholders that access and equity are required at the outset. Safety, accessibility and equity should be included in permit requirements for testing, and ultimately deployment, and permit renewals. Allowing companies to test and deploy AVs without safety, accessibility and equity in mind will likely lead to discriminatory service provision and would violate the rights of DC's residents under the DC Human Rights Act and the Americans with Disabilities Act.

II. Recommendations

Access, Equity and Safety Plan - The DC Municipal Regulation 3314.4 requires dockless sharing vehicle operators to provide traffic management plans before issuance of a permit for testing, and for deployment. We recommend requiring an access, equity and safety plan that includes community engagement before the issuance of a permit. The plan should also include a timeline and method by which the operator will provide safe, fully accessible and equitable service with AVs - based on community engagement and before implementation. The plans should be publicly available and standards for access, equity and safety - including timelines - should be developed with community input.

Safety, Access and Equity Elements - Potential elements of these plans could include the accessibility features of the vehicle, and whether people with disabilities were consulted as part of the design and testing in order to ensure the safety, accessibility and usability. Consumers and public transportation users will benefit greatly from knowledge of accessibility features ahead of time. A clear understanding of the vehicle's capacity could make the difference between being left at the curb because the vehicle is inaccessible to a wheelchair user, or unidentifiable to a low-vision, blind, or cognitively disabled passenger; or limited usability in case of an emergency. Features could include, but are not limited to:

Human Machine Interface Features

- Usability of accessible apps to hail a car. The apps must be Section 508 compliant.
- Use of multiple forms of communication (eg, print, audio, plain English and symbols) with the vehicle, when requesting a ride, identifying the correct vehicle, and inside the vehicle to change the route, unlock doors, etc.
- Accessible controls inside the vehicle to change the route, unlock doors, etc.
- Accessible output to provide directions and other pertinent data; such information should be provided in a myriad of channels (eg, large print, auditory output, and pictures)
- Minimally complex directions and control identifiers for all levels of understanding
- Compatibility with portable devices (phones, tablets, 'smart-glasses') with customized assistive technology
- Accessible operating surfaces that are within reach and have tactile cues
- Software to ensure accessible drop off points for access (eg, near curb ramps)
- Information provided about the environment surrounding the vehicle to assist blind or visually impaired passengers to orient themselves once they have vacated the vehicle
- Features to assist passengers with disabilities for when requesting a ride so that they can identify the correct vehicle and not mistake another car as their ride

- Identifying how the car will communicate in an emergency, which should include multiple channels of communication (eg. lights, auditory output, tactile vibrations)

Vehicle Hardware Features

- Space to stow wheelchairs for those transferring to a seat
- Lower floors to accommodate manual and power wheelchairs
- Lifts or ramp and a securement system, or support for aftermarket modification
- Accessible door handles, storage spaces, seat-belts (opening and closing the trunk or hood)
- Door height and available turning radius

Equity Features

- Payment options for people who are unbanked or without smartphones
- Community engagement in all Wards, prioritizing traditionally underserved neighborhoods

Safety Features

- Automatic emergency breaking
- Cybersecurity and emergency protocols
- Detection of pedestrians, bicyclists, mobility device users and people of all skin tones outside the vehicleⁱⁱⁱ

Please note, any specific accessibility features should be developed in consultation with disability community members and the US Access Board.

Performance Measurement Requirements & Accessibility Fee - The terms and conditions for the dockless bikes and scooter operators include requirements to be met in order to expand (see Article II.B, Performance-Based Fleet Expansion). The terms include required proof that dockless bike and scooter companies are meeting their equity and accessibility goals and commitments during the permit period.

We recommend similar performance-based fleet expansion **and** permit maintenance requirements that ensure progress towards the operators' safety, equity and access plans over time, and include community engagement. Requirements should be determined in collaboration with the DC MultiModal Accessibility, Pedestrian and Bicyclist Advisory Committees, the DFHV Accessibility Advisory Committee and stakeholders and advocates of DC's Black, Brown and traditionally underserved communities. In addition, as long as operators

are not testing and deploying accessible AVs, they should contribute to a District accessible mobility fund.

Equivalent, Accessible AV Service Required when Deployed – As previously stated, allowing companies to test and deploy AVs without safety, equity and accessibility in mind will likely lead to discriminatory service provision and would violate the rights of DC’s residents under the DC Human Rights Act and the Americans with Disabilities Act. DDOT must make clear in any permitting that when vehicles are deployed for public use equivalent service must be provided with AVs to all people with disabilities, including wheelchair users. In addition, should AV operators partner with DDOT or WMATA, they will be required to comply with all applicable civil rights laws.

We presume AVs will initially operate in fleets, similar to Uber and Lyft or company-owned taxis. According to a recent letter from the Disability Rights Education & Defense Fund, under the ADA, demand response fleet providers must provide equivalent service to people with disabilities. It is discrimination for any entity, whether publicly or privately funded, to purchase or lease a new vehicle after August 25, 1990 for demand responsive service that is not accessible, unless the system, when viewed in its entirety, provides a level of service to individuals with disabilities equivalent to the level of service provided to the general public.^{iv}

“When viewed in its entirety” means that when all aspects of the system are analyzed, services are provided to individuals with disabilities in the most integrated setting appropriate to the needs of the individual and are equivalent to services provided to other individuals, in terms of: service area, response time, fares, hours and days of service, no restrictions or priorities based on the purpose of the trip, no capacity constraints, availability of information and reservations capacity, accessible information and communications, and any other benefits such as safety and an improved passenger experience that AVs may uniquely provide.^{vi} That is to say, it will not be acceptable to provide equivalent service with a lesser quality vehicle that does not provide the improved safety and experience of an AV.

Potential Incentives - The terms and conditions for the Public Rights of Way occupancy permit currently include an incentive allowing adaptive dockless sharing vehicles to not be counted in the maximum number of vehicles allowed (See Article II.A.2). We recommend a discussion with community stakeholders regarding whether a similar incentive for safe, accessible AVs should be provided, with the caveat that the vehicles must be used to provide service to wheelchair users. We understand the benefits of incentives, and also acknowledge concerns regarding environmental impacts of too many vehicles, as well as congestion, and concerns regarding safety.

III. In Our Own Words

What should be required for AV's to be tested and deployed in DC?

"DDOT must make clear in any permitting that when vehicles are deployed for public use equivalent service must be provided with AVs to all people with disabilities, including wheelchair users."

Robb Dooling, Councilmember, DDOT MultiModal Accessibility Advisory Council (MAAC)

"When history looks back on the moment as AV services are launched, will it judge those kindly, who made it their work to promote yet another public service that may exclude a class of citizens? How will history remember those who forsook fellow citizens and planned with an informed neglect? AV service is a seminal event. I am excited to use AVs soon. Please consider implementing this memo's recommendations and deploy AV service with inclusion in mind."

Dennis Butler, Member, DC DFHV Accessibility Advisory Committee (AAC)

"Unless the AV program provides vehicles that are safe and accessible for everyone, regardless of impairment or disability, the program should not operate in the District of Columbia."

Joan Christopher, Member, DMV Disability & Sr Community Group

Conclusion

Thank you for the opportunity to provide recommendations regarding DDOT's AV testing permit requirements. We appreciate your commitment to increased mobility and safety for all District residents, workers and visitors. Please do not hesitate to follow up with any questions by contacting Heidi Case at hacase@icloud.com or (202) 803-1055.

Sincerely,

ABilly Jones-Hennin, Member, DMV Disability & Sr Community Group

Anais Sensiba, Member, DMV Disability & Sr Community Group

Anna Landre, Commissioner ANC 2E04, disabled person/person with a disability

Beryl Neurman, Member, DMV Disability & Sr Community Group

C Buddy Moore, Councilmember, DC MultiModal MAAC

Carol Tyson, Member, DMV Disability & Sr Community Group

Dan Davis-Smith

Dennis Butler, Member, DC DFHV Accessibility Advisory Committee (AAC)

Germaine Payne, Member, DMV Disability & Sr Community Group; Member, Project Action!

Heidi Case, DMV Disability & Sr Community Group; Chair, DC MAAC

Helen Urquhart, Councilmember, DC MAAC

Jay Stewart, Bicycle Advisory Council Representative (Ward 8)

Kali Wasenko, Sibling/Ally/Friend/CoWorker

Kara Nicole Jones, Member, DMV Disability & Sr Community Group; Member, Project Action!

Joan Christopher, Member, DMV Disability & Sr Community Group

Jamie Davis-Smith

Justice Shorter

Kim Bellamy, NFB DC Affiliate Board Member

Luz Z. Callofo, Member, DMV Disability & Sr Community Group

Philip Sklover, Vice-Chair, DC MAAC

Randall Myers, Bicycle Advisory Council Representative (At-Large, Robert White)

Robb Dooling, Councilmember, DC MAAC

Robert Kennedy, Member, DMV Disability & Sr Community Group; Member, Project Action!

Robin Mendes Newell, Member, DMV Disability & Sr Community Group; Peer Support Group Facilitator, DC Center for Independent Living

CC: Jeff Marootian, DDOT Director; Nana Bailey-Thomas, DDOT Chief Equity & Inclusion Officer; Cesar Barreto, DDOT Americans with Disabilities Act Coordinator

ⁱ "District of Columbia Disability Characteristics." 2019 American Community Survey 1-Year Estimates, United States Census Bureau, <https://data.census.gov/cedsci/table?t=Disability&g=0400000US11&tid=ACSST1Y2019.S1810>. Accessed 9 December 2020.

ⁱⁱ "District of Columbia Populations and People: Age and Sex." 2019 American Community Survey 1-Year Estimates, United States Census Bureau, <https://data.census.gov/cedsci/table?q=District%20of%20Columbia%20Populations%20and%20People&tid=ACSST1Y2019.S0101>. Accessed 9 December 2020.

ⁱⁱⁱ See concerns regarding implicit and algorithmic bias in detection of pedestrians. Sigal Samuel (March 2019). "A new study finds a potential risk with self-driving cars: failure to detect dark-skinned pedestrians", *Vox*.

<https://www.vox.com/future-perfect/2019/3/5/18251924/self-driving-car-racial-bias-study-autonomous-vehicle-dark-skin>. Accessed 10 December 2020.

^{iv} 49 C.F.R. §§ 37.103, 37.77, 37.171.

^v 49 C.F.R. § 37.105.

^{vi} See the November 3, 2020 letter from the Disability Rights Education and Defense Fund with Disability Rights California to the California Public Utility Commission on the Proposed Decision for authorizing AV deployment. <https://dredf.org/2020/11/03/comments-on-proposed-decision-of-california-puc-commissioner-shiroma-authorizing-deployment-of-autonomous-vehicle-passenger-service/>