CONSORTIUM FOR CONSTITUENTS WITH DISABILITIES

August 3, 2022

Submitted via regulations.gov

U.S. Department of Transportation
Docket Management Facility
1200 New Jersey Avenue SE
Washington, DC 20590

Re: Comments Concerning Transit Bus Automation Research and Demonstrations
Docket Number: FTA-2022-0012

The Consortium for Constituents with Disabilities (CCD) Transportation Task Force Co-Chairs submit the following in response to the US Department of Transportation (USDOT) Federal Transit Administration (FTA) request for information on transit bus automation research and demonstrations. CCD also commends USDOT and FTA leadership and staff for its recent celebration of the 32nd Anniversary of the Americans with Disabilities Act (ADA). We are grateful for FTA's commitment to equity and disabled riders through the All Stations Accessibility Program and look forward to supporting FTA as it seeks to increase and ensure access for all across the country.

CCD is the largest coalition of national organizations working together to advocate for Federal public policy that ensures the self-determination, independence, empowerment, integration and inclusion of children and adults with disabilities in all aspects of society free from racism, ableism, sexism, and xenophobia, as well as LGBTQ+ based discrimination and religious intolerance.

Advanced Driver Assistance Systems (ADAS) and Automated Driving Systems (ADS) Must Prioritize the Needs of Disabled Travelers

As USDOT has identified, AVs have the potential to dramatically improve the lives of people with disabilities. More than half a million people with disabilities never leave home, citing transportation difficulties.[1] Many people with disabilities cannot drive or lack access to a personal vehicle. Ensuring access is easier if it is integrated at the outset, yet news accounts of AV or ADS testing and deployment timelines often fail to mention accessibility.[2,3,4] The disability community knows well that if access is not baked into technology, history will likely be repeated. Accessible automated buses and shuttles will be required, and retrofitting will be more expensive for providers in the long run.[5] In addition, according to the 2020 APTA vehicle database, 100% of the nation's transit buses are accessible.[6] Decreasing accessibility is not an

option. In addition, providing non-automated accessible alternatives to inaccessible automated buses or shuttles is *not* equivalent service when automated vehicles are touted as safer.

In 2018, FTA completed its five-year Strategic Transit Automation Research Plan (STAR Plan). In continuing research and demonstrations, it is of the utmost importance to provide safe and accessible ADAS and ADS, including public transit buses and shuttles used to provide on demand service for all riders. Under 49 C.F.R. § 37.5(a), "No entity shall discriminate against an individual with a disability in connection with the provision of transportation service." Transit agencies and DOT's must provide accessible public transit. In addition, Under Section 504 of the Rehabilitation Act, FTA has an affirmative obligation to ensure that people with disabilities have equal access and an equal opportunity to participate in and benefit from its services, programs, and activities.[7] FTA may not "utilize criteria or methods of administration ... [t]hat have the effect of subjecting qualified individuals with disabilities to discrimination on the basis of disability [or] [t]hat have the purpose or effect of defeating or substantially reducing the likelihood that persons with a disability can benefit by the objectives of the recipient's program or activity[.] ".[8]

As ADAS and ADS are developed and deployed, the needs of people with disabilities and members of all marginalized communities must be prioritized. Additional and immediate measures must be taken to fulfill the promise of innovation, increased safety and mobility. To that end, we provide the following in response to the transit bus automation RFI.

1. Priority Areas

What topics should be a priority for FTA's transit bus automation research and demonstrations over the next five years? What specific activities or products should be a priority for FTA within these areas?

Per the ADA, no entity shall discriminate against an individual with a disability in the provision of transportation services. Many individuals with disabilities rely on public transportation. As FTA continues with research on and demonstrations of automated transit buses, accessibility, safety, and equity for people with disabilities and all riders must be prioritized.

FTA should consider the following activities in the near term:

- Immediately update the 2016 Shared Mobility guidance. Agencies and state DOT's should be made aware of their obligation to ensure any partnerships to provide automated transit service are equitable and accessible.
- Work in collaboration with the US Access Board and other relevant stakeholders to identify existing accessibility standards that automated transit buses must meet, and new standards that may need to be developed. Standards should address, at a minimum, automated securement, ramps and human machine interface communication between the bus and disabled travelers.
- Work with NHTSA and FHWA to integrate automated transit bus research and priorities with national road safety and complete streets efforts.

- Work with the Coordinating Council on Access and Mobility and the Federal Emergency Management Agency to identify how accessible automated transit might be used in emergencies and address gaps in service in urban, suburban, rural and Tribal areas.

For any priority areas identified, are there activities that stakeholders have undertaken? What were the challenges? Are there specific areas where FTA engagement may be needed?

To prioritize accessibility, FTA must engage with disability rights organizations and individuals with disabilities, including wheelchair users, and people who are blind, Deaf, or have other sensory or cognitive disabilities, to ensure that current and new buses are safe and accessible for those with disabilities. Representatives should include those from urban, rural and Tribal areas. FTA should hold discussions with the disability community for collaboration and work with researchers, designers, and engineers who specialize in accessibility who can develop safe and accessible automated transit buses. FTA must also take seriously whether a concierge employee may be needed on board to assist passengers, including older adults or disabled passengers, to ensure safety, remind riders of priority seating needs, and assist in an emergency.

2. Enabling Research

What specific research questions should be addressed by FTA-supported foundational research within the next five years? Possible topic areas for research include, but are not limited to, cybersecurity, equity, standards, and workforce training.

FTA should research:

Accessibility standards that would allow for safe use of automated buses. FTA should work in conjunction with the US Access Board to develop minimum baseline design requirements, and research additional methods and designs to exceed those accessibility standards. Standards should include accessible bus features for wheelchair users, and people with sensory and cognitive disabilities, building on the work of the inclusive design challenge awardees, including development or updating of standards for ramps, securement, and effective and accessible communication with the bus. Ensuring that ADAS and ADS is accessible will begin to bridge the gap of current inaccessible transportation for individuals with disabilities and move towards a more equitable transit system.

The need for accessible infrastructure and public rights of way such as sidewalks and bus stops and what standards are necessary to ensure connected infrastructure and curb technology are fully accessible to and usable by people with disabilities***.*** Accessible infrastructure will increase access and delivery of the promise of automated buses. FTA should compile data on accessible bus stops and facilities to ensure disabled users are able to fully benefit from automated transit, and identify programs and steps that can be taken to improve infrastructure accessibility and safety. Without accessible sidewalks, curb ramps, bus stops, and pedestrian signals disabled riders are unable to safely access transit. In addition, accessible bus stops may be necessary for safe and effective automated ramp deployment.

Equity in provision of ADAS and ADS, including: the impact of providing full accessibility in all transit vehicles of all sizes. Research should address how fully accessible and affordable ADS can address gaps in current service without negatively impacting existing services. Research should also identify successful mixes of on-demand and fixed-route, autonomous and human-driven options to increase reliability, connectivity, coverage area, and frequency for transit users with disabilities; and how can automation improve mobility options for older adults and people with disabilities in the hardest-to-serve transit markets.

Ways to ensure equitable training for and hiring of the ADS workforce benefits Black, indigenous and people of color; low income people; and people with disabilities.

How wayfinding technologies can interact with automated transit vehicles to improve navigation, communication and orientation.

What level of human and non-human assistance is necessary to enable passengers with disabilities, older adults and other passengers to effectively and frequently use automated transit vehicles.

Testing standards necessary to prevent collisions between automated transit vehicles and people with disabilities outside the transit vehicle, regardless of skin color or mobility device usage. Please refer to recently submitted Consortium for Constituents with Disabilities (CCD) comments on the New Car Assessment Program and ADAS requirements for additional measures to ensure equity in ADAS.[9]

3. Integrated Demonstrations

Are these demonstration areas still needed? What additional or alternative demonstration areas are a priority?

Yes, demonstrations are still needed. Demonstrations should include fully accessible automated buses and shuttles. Accessibility should be tested by a wide range of disabled passengers and in multiple operational design domains, including urban and rural areas.

What are the biggest successes or challenges to deploying ADAS or ADS technologies for transit?

A challenge to deploying ADAS and ADS technology will be to ensure that all automated transit is safe and accessible for individuals with disabilities inside and outside the vehicle. The FTA must work with NHTSA and the FHWA to ensure ADAS requirements include sensing people with disabilities and those with darker skin tones, and to ensure infrastructure outside the vehicle is accessible. Please refer to the aforementioned CCD comments for additional information.[10]

Transportation is essential for obtaining employment, health care, and participating in social and public life. Public transportation should advance an individual's ability to participate in their

daily life activities. An equity-oriented approach to provide safe and accessible transportation for individuals with disabilities will not only comply with the law but will also ensure people with disabilities benefit fully from all new modes.

4. Stakeholder Engagement and Knowledge Transfer

Are FTA's methods of stakeholder engagement sufficient? What other methods should FTA consider?

To test accessibility, FTA should work directly with disability rights organizations and the US Access Board to collaborate and explore how ADAS and ADS can be effective, safe, and ensure accessibility. As FTA continues to research and develop ADAS and ADS, accessibility, equity and safety must be key priorities.

Thank you, again, for the opportunity to provide comment. As the FTA continues transit bus automation research and demonstrations we hope you will take these recommendations into account. Please contact Carol Tyson, ctyson@dredf.org, with any questions. The CCD Transportation Task Force looks forward to continuing to work with FTA and the broader automation stakeholder community to ensure access and safety for all are realized.

Sincerely,

CCD Transportation Task Force Co-Chairs

Sarah Malaier, American Foundation for the Blind

Swatha Nandhakumar, American Council of the Blind

Claire Stanley, National Disability Rights Network

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[1] USDOT Bureau of Labor Statistics [Issue Brief #3] (April 2003). Transportation Difficulties Keep Over Half a Million Disabled at Home. Retrieved from https://www.bts.gov/archive/publications/special_reports_and_issue_briefs/issue_briefs/number_03/entire

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[3] Laris, Michael (October 2018). From Model T to driverless: Ford to launch fleet of robot cars in Washington, DC, *Washington Post*. Retrieved from https://www.washingtonpost.com/local/trafficandcommuting/from-model-t-to-driverless-ford-to-launch-fleet-of-robot-cars-in-washington/2018/10/21/6d98119e-d2f6-11e8-b2d2-f397227b43f0_story.html

[4] Sage, Alexandria and Paul Lienert (November 2017). GM plans large-scale launch of self-driving cars in US Cities in 2019. Retrieved from https://www.reuters.com/article/us-gm-autonomous/gm-plans-large-scale-launch-of-self-driving-cars-in-us-cities-in-2019-idUSKBN1DU2H0

[5] Johnson, Mary and Barrett Shaw [Eds] (2001). To Ride the Public's Buses: The Fight that Built a Movement. The Advocado Press.

[6] APTA 2021 Public Transportation Fact Book available at https://www.apta.com/wp-content/uploads/APTA-2021-Fact-Book.pdf
[7] 49 C.F.R. § 27.7(b)
[8] 49 C.F.R. § 27.7(b)(4)(i), (ii)
[9] https://www.c-c-d.org/fichiers/CCD-Transportation-TF-NHTSA-2021-Comments-060822-FINAL.pdf
[10] https://www.c-c-d.org/fichiers/CCD-Transportation-TF-NHTSA-2021-Comments-060822-FINAL.pdf