March 2, 2018

K. Jane Williams  
Deputy Administrator, Federal Transit Administration (FTA)  
U.S. Department of Transportation (USDOT)  
1200 New Jersey Ave SE  
Washington, DC 20003


Dear Deputy Administrator Williams,

Thank you for the opportunity to provide comments to the January 10, 2018 Notice Research Program: Automated Transit Buses. The Intelligent Transportation Society of America (ITS America) believes that continued Federal Transit Administration (FTA) support for research and guidance is important. The association commends FTA for reaching out to industry to understand current transit bus automation and supplemental technologies.

ITS America is an association of public and private organizations that are focused on advanced vehicle technology, smart cities, and new models for mobility. Our members include automakers, telecomm, traditional IT and emerging tech, and consumer apps and industrial electronics. We also include public agencies and non-profits, such as road, transit and other transportation infrastructure operators and the research community focused on bringing new technology from the lab to our roads, cars, buses and trucks. Our objective is to grow our economy and improve our quality of life through innovative technologies that enhance the mobility, safety, security, privacy, sustainability and accessibility of our transportation system in the next decade.

ITS America also directly supports FTA in Mobility-on-Demand (MOD) research and knowledge transfer efforts. ITS America leverages its extensive base of contacts in both the transit and MOD arenas and is in the unique position to facilitate engagement with both traditional and non-traditional mobility stakeholders. In addition, one of ITS America’s key priorities for 2018 has been to establish the foundation for the deployment of automated and connected vehicles. Public confidence in the safety of the technology must be first achieved and then expanded in order for the technology to succeed commercially. We have been active in educating key stakeholders on issues in reference to the AV START Act (S 1885) and the SELF-DRIVE Act (HR 3388).

In our comments to NHTSA on their policy “Automated Driving Systems 2.0” (ADS. 2.0) [NHTSA-2017-0822], we recommended that USDOT should also consider research or principles addressing the safety of human-machine interfaces, in particular how drivers or passengers might handle transitions from automated driving to conventional driver or degraded operations, since these will impact traffic safety. This applies not only to automated personally owned vehicles, but also bus and other systems that provide passenger transit services that are made available to the public. Along these same lines, how ADS users with disabilities could interact with systems in the case of emergency is a topic that has not been fully explored by researchers and automotive designers and should be included to address accessibility implications of the new technology use in transit.

Docking, seating and occupant protection are also important to consider for driverless transit vehicles. This is especially the case given that transit/para-transit vehicle drivers are also often relied upon to provide assistance to mobility or sensory impaired travelers in vehicle ingress/egress and securement of wheelchairs and other assistive devices. NHTSA does support requirements derived from the American’s with Disabilities Act (ADA) in Federal Motor Vehicle Safety Standards (FMVSS) 403 and 404, for example, addressing Platform Lift systems. ADA’s requirements for occupant protection, however, are less established and there is less guidance on how automated buses would support securement of wheelchairs and other mobility aids.

1 Mobility Rush covering Transit, Mod, Partnerships - - https://www.itSA.org/mobility-rush/
For a future driverless vehicle to be fully accessible, automation of operation does not apply just to the driving task, but also to how the vehicle is dispatched, how it parks or docks, how it manages passengers entering and exiting, and how it secures passengers in seating. ITS America will be shortly publishing a report, sponsored by the University of California San Francisco and the US Department of Health and Human Services, addressing the needs of people with disabilities and accessibility challenges in automated vehicle design and will address government and industry roles in promoting universal access to this innovative technology. This report recommends that establishing a comprehensive research and standards roadmap could help the automakers, the medical device and assistive technology sectors, and the consumer electronics industry work together to advance automotive accessibility in general, incorporating lessons from nearly three decades of accessible transportation.

There is a lot of speculation that both traditional transit/para-transit, and non-traditional micro-transit and shared-use mobility services (ride-sharing/sourcing/car-sharing) will be both enabled and transformed by vehicle automation. Non-traditional services offer first- and last-mile solutions to help riders connect with transit. A joint ITS America/AT&T report on the impact of shared-use mobility concluded “What nudges people into different transportation modes or changes their transportation patterns is under researched.” The report concluded that more research on the environmental and congestion impacts of shared-use mobility is needed. The report summarizes — “Traditional carsharing programs are believed to result in net benefits to the environment, reducing overall emissions and removing vehicles from the road. Research into the environmental and mobility impacts of other models of carsharing and on-demand ride sourcing is more limited at present. A greater understanding of any induced travel effects and how these services impact transit would be valuable to integrating and improving the transportation system.”

Finally, it should be noted that the development of future standards for automated transit vehicle systems and subsystems, through American Public Transportation Association (APTA), Society of Automotive Engineers (SAE) or other groups may be necessary, but not sufficient. Transit systems have mixed track record on standardization, in particular related to communications and data interfaces. ITS America recently examined the adoption of Transit Communications Interface Protocol (TCIP) over the last 15 years. The report concluded that economic incentives, not changes in technology, were to mostly blame for the slow adoption of TCIP.

ITS America encourages FTA to establish a dialogue with state and local transportation authorities, industry and the research community to address safety, mobility, sustainability and accessibility. ITS America is encouraged by FTA’s work, and commits to helping our members work with the agency and others to create foundation for the deployment of this new life-saving technology.

Sincerely,

/s/ Steven Bayless
Steven H. Bayless
Vice President, Public Policy and Regulatory Affairs
Intelligent Transportation Society of America

---

2 “Driverless Cars and Accessibility - Designing the Future of Transportation for People with Disabilities, Steven H. Bayless and Sara Davidson, March 2018