CONSORTIUM FOR CONSTITUENTS WITH DISABILITIES

September 21, 2022

Submitted via regulations.gov

National Highway Traffic Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590

RE: Request for public comment on GM petition for temporary exemption, Docket No. NHTSA-2022-0067

The undersigned members of the Consortium for Constituents with Disabilities (CCD) Transportation Task Force appreciate the opportunity to provide a response to the questions posed by the National Highway Traffic Safety Administration (NHTSA) regarding GM's petition for exemptions from the Federal Motor Vehicle Safety Standards for autonomous vehicles (AVs). 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. The CCD Transportation Task Force advances the rights of people with disabilities – including physical, sensory, and cognitive disabilities – in the area of transportation. We urge NHTSA to make full accessibility for all people with disabilities a primary condition and prerequisite to granting any exemption allowing the operation of autonomous vehicle services.

I. Accessible AVs for People with Disabilities is in the Public Interest

NHTSA's regulations stipulate that the exemption in question should serve the public interest: "Each application […] for an exemption or its renewal must […] (7) Set forth the reasons why the granting of the exemption would be in the public interest, and, as applicable, consistent

with the objectives of 49 U.S.C. Chapter 301 or Chapter 325."[1] The undersigned members of the CCD Transportation Task Force strongly believe that the public interest can only be met if people with disabilities are able to safely and accessibly use AVs. There is great potential for this technology to improve the mobility of people with disabilities, many of whom face significant travel barriers in our current transportation system. Indeed, the Bureau of Transportation Statistics estimates that more than 25.5 million Americans (about 1 in 12 people) have travel-limiting disabilities, and many people do not have reliable transportation for reasons not directly related to disability, such as cost or service availability.[2] Provision of autonomous ride-hailing services has the potential to increase safety for passengers, pedestrians, and bicyclists; to increase multi-modal travel and decrease reliance on individual gas-powered vehicles; and to provide access to transportation and crucial on-demand service to travelers who are low income or live in or are members of historically disadvantaged communities, including people with disabilities and who are Black, Indigenous, and People of Color (BIPOC). Despite our hopes for this technology, we are concerned that unless AVs are intentionally designed, tested, and deployed for accessibility, millions of people with disabilities, and older adults who may develop age-related disabilities, will face significant travel barriers to accessing and using this mode of transportation. Safety, climate, and equity benefits can only be achieved in autonomous ride-hailing services if the vehicles and services are equitable, accessible, and usable and do not discriminate against people with disabilities.

In addition, AVs may impact the sustainability of other transportation services. Introducing large numbers of AVs will likely have an impact on the availability of other modes if the technology is successful. For example, in the past when on-demand rideshare companies flooded a market with inaccessible service, we saw a negative impact on accessible services, such as taxis and transit.[3] Thus, it is reasonable to expect that a similar shift would occur when these proposed inaccessible AV services launch. Likewise, existing transportation network companies and transit agencies will eventually adopt AVs as part of their service offerings and will need these AVs to be accessible. Therefore, it is important that AVs be accessible from the beginning, so that people with disabilities are not relegated to less reliable, frequent, or accessible service in existing and future transportation systems.

Given NHTSA's safety mandate and mission, it is essential to integrate accessibility because it is inextricably linked to safety for people with disabilities. Accessibility dictates whether a person with a disability can evacuate a car safely, call for assistance, or be adequately protected by the securement and airbag features of the vehicle. There are also policy decisions that service operators will make that will affect safety. For example, if the vehicle loads and unloads passengers in the middle of the street to avoid finding open curb space, will people who are blind or who use mobility aids be able to safely access or depart the vehicle? Our comments on the New Car Assessment Programs point out further issues impacting the safety of people with disabilities outside the AV itself.[4] People with disabilities must be represented in companies' testing schemes to ensure these vehicles are equally safe for people with disabilities.

We urge the Administrator to make full accessibility for people with disabilities – including sensory, physical, and cognitive disabilities – a prerequisite to granting an exemption. As NHTSA notes in its request for comment, the Administrator has the authority to determine what terms may be necessary to ensure that the exemption meets the public interest.[5] Under Section 504 of the Rehabilitation Act, NHTSA 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.[6] NHTSA 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[.]"[7] Additionally, because the petitioner will be operating these vehicles as a publicly available commercial service, the operator will be subject to the Americans with Disabilities Act (ADA) prohibitions on discrimination against people with disabilities. Granting an exemption without requiring these vehicles to be fully accessible will result in subjecting many individuals with disabilities to discrimination because they will not have access to the network of vehicles operated by the petitioner. Therefore, to prevent discrimination, NHTSA must make accessibility an enforceable requirement in shaping the terms of this exemption and future exemption requests.

II. The Terms Must Advance Accessibility for All

In response to NHTSA's proposed terms and questions therein, we offer the following responses. To the extent of its authority, we encourage NHTSA to make the terms related to accessibility enforceable throughout the life of the exempted vehicles. Moreover, we urge NHTSA to require accessibility for diverse users with disabilities, including people who are blind or Deaf, use a wheelchair or other mobility aid, or have cognitive disabilities.

A. How should NHTSA consider accessibility in applying appropriate conditions to an exemption if it were granted? Should NHTSA impose conditions on grants of part 555 exemptions to learn more about specific actions that manufacturers and operators of ADS-equipped exempted vehicles are planning, or have taken, to further the attainment of accessibility and equity goals?

NHTSA must impose accessibility requirements on grants of part 555 exemptions for all AV manufacturers. These requirements must cover accessibility of the vehicle for wheelchair users, the Human-Machine Interface (HMI), finding the vehicle, ingress and egress, operating the service, and emergency communications and response, among other features. These features must be accessible for people with different types of disabilities, including people with multiple disabilities. In 2019, the Auto Alliance collected information about many of the features that must be made accessible in AVs in order for people with disabilities to use these services,[8] so manufacturers are aware of the design elements they must address. The requirements must also ensure that safety testing for AVs includes the safety of people with disabilities, both as passengers and pedestrians. These requirements must be met before the vehicles are deployed as part of any public services, including those operated as part of a ride-hailing service, or public transit.

In addition to specific accessibility requirements, NHTSA should impose conditions to track the specific actions manufacturers and operators of the AVs have taken and plan to take to advance accessibility. NHTSA should require the collection of data on how manufacturers and operators are or are not meeting the needs of the people with all types of disabilities, not limited to

nonvisual accessibility and wheelchair use, as well as reports on known damages, injuries, and complaints. The data collected should be reported regularly and frequently and made available to the public online in an accessible format. As a reference point, NHTSA should consider imposing requirements similar to those currently applied to airlines around public reporting of wheelchair damages and complaints from passengers with disabilities.[9] In addition, NHTSA should require manufacturers and operators to produce a document similar to an ADA transition plan in which the manufacturers and operators identify specific barriers in the vehicle, service, and policies; describe in detail the methods for making the vehicle and service accessible; and specify a schedule for when those barriers will be removed.[10] NHTSA should require short timelines for remediation to reduce the time that people with disabilities are excluded from the service. This plan should be regularly updated throughout the service life of the vehicle since it is our experience that software updates and physical maintenance conducted after the release of new technologies may both improve and reduce the accessibility of the vehicle.

B. Should NHTSA seek information from manufacturers granted an exemption as to how they ensure that their ride-hailing services comply with any applicable ADA requirements, how many vehicles would be wheelchair accessible, how they reach people with disabilities to offer access to ride sharing services, or whether the exempt vehicles provide other accommodations for individuals with disabilities, such as communication and/or human-machine interface (HMI) features designed for individuals with sensory disabilities (such as sight or hearing) or cognitive disabilities?

We commend NHTSA for taking seriously the needs of disabled ride-hailing passengers and its interest in ensuring compliance with ADA requirements. This past July the U.S. Department of Transportation (USDOT) and the nation celebrated the 32nd Anniversary of the ADA. In enacting this critical legislation Congress sought to "provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities." In addition, USDOT and NHTSA have an obligation under Section 504 of the Rehabilitation Act to ensure

people with disabilities have equal access and an equal opportunity to participate in and benefit from services, programs, and activities.

Passengers and pedestrians with disabilities continue to experience discrimination and lack of access to current ride-hailing or on-demand services, including being stranded at the curb; navigating dangerous pick ups or drop offs; being denied rides as a wheelchair or service animal user or as a BIPOC traveler; lack of wheelchair accessible vehicles in almost all markets; inequitable wait times; inaccessible user interfaces; and lack of alternatives to using a smartphone or credit card.

The ADA has not historically addressed the accessibility of individual passenger vehicles for private use. However, when original equipment manufacturers (OEMs) provide autonomous transportation as a service either on their own or in partnership with government entities or transit agencies, they will be required to comply with Title II and / or Title III of the ADA.

It is our position that all new vehicles and the services in which they operate must be made fully accessible when they launch to avoid discrimination and to ensure equity and safety for people with disabilities. That means that all vehicles must be wheelchair accessible and have a fully accessible HMI. The policies, procedures, and operations of the transportation service must also be reasonably modified to avoid discrimination. This requirement is especially important for vehicles operating as part of public service, including a ride-hailing service, taxi network, or public transit. Reporting and data collection should be required as a supplementary means of identifying barriers and solutions and engaging with manufacturers and operators to address accessibility over time.

That said, we believe that NHTSA should work with other federal agencies, including the U.S. Access Board and U.S. Department of Justice, to develop technical assistance and guidance on how the ADA specifically applies to these vehicle manufacturers and operators and to set consistent requirements and expectations across all industry stakeholders. The CCD Transportation Task Force has developed a set of principles outlining issues that must be addressed by the federal government to ensure that AVs are safe, accessible, and equitable for

people with disabilities.[11] Resources from the former Auto Alliance, SAE International, and USDOT's Inclusive Design Challenge reference pages should inform this work.[12] The CCD Transportation Task Force's updated 2022 AV Principles should be used as a guide, and the 2018 principles currently posted on the Inclusive Design Challenge page should be updated to the current Principles.

Furthermore, USDOT and USDOJ should clarify existing ADA on-demand service requirements. USDOT should also update its 2016 Dear Colleague letter on Shared Mobility.[13] The letter reminded agencies partnering with transportation network companies and other private entities that they have an obligation to ensure equity and access. The updated guidance should direct agencies to adhere to their obligation and cover partnerships with AV service providers.

In setting the terms of this exemption and future policy, NHTSA should consider at a minimum the following requirements:

- Individuals using a wheelchair independently must be able to enter and exit the vehicle safely, not into traffic, and use a securement system.
- The doors of the vehicle must be able to be opened by people with limited strength or dexterity and/or from a wheelchair.
- All features of HMI (including setting and changing the destination, temperature controls, and entertainment systems) must be accessible to people who are Deaf, are blind, have limited manual dexterity, or have cognitive disabilities. Many people who have cognitive disability will benefit from the interface being available in plain language while many people who are Deaf will benefit American Sign Language.
- The smartphone app must be accessible on all devices, including with Voiceover and TalkBack. The app and interface must provide effective communication to all people with disabilities. They must meet the latest Web Content Accessibility Guidelines 2.1 Level AA or a better standard.
- People with disabilities must be able to effectively communicate with an operator or customer service agent through multiple modalities, such as speech and text.

- Users with disabilities must be able to locate the vehicle, including via auditory, visual, and haptic feedback. An operator available via multiple modalities (voice and text) must be available to provide assistance if needed.
- People with disabilities must be able to safely access the vehicle at the curb without entering vehicle or bicycle traffic. The vehicle must pull up to and use available curb space as well as make use of curb cuts when appropriate.
- People with disabilities must be exempt from wait time fees and other penalties if they require additional time to locate and board the vehicle.[14]
- Passengers with a disability must be able to evacuate the vehicle in an emergency, communicate effectively with an operator or emergency services provider, and easily understand emergency and safety protocols.
- People with diverse body sizes and shapes, darker skin tones, and mobility aids must be able to safely use and interact with the vehicles as a passenger, pedestrian, or cyclist.

Additional considerations that are necessary to achieve equity for all people with disabilities include:

- Many people with disabilities have limited incomes or are older adults. Will the service operator provide a means other than a smartphone for accessing the vehicle, such as a phone number or online reservation system? How would such users find and interact with the vehicle? How will users interact with the vehicle if their smartphone malfunctions or the battery dies?
- Many people with disabilities who face transportation barriers are parents. How will parents and caregivers secure infants and children in the AVs?
- If it is necessary for users to interact with EV charging stations, how will service operators ensure that the EV charging stations are accessible?
- In California and Arizona, 44% and 26% of people respectively speak languages other than English at home. Will the HMI be available in multiple languages used in the communities in which the vehicles will be deployed?

- People with disabilities tend to have lower incomes than people without disabilities. Will the cost of these services be affordable for people with middle or lower incomes? Will the vehicles be available at times and in neighborhoods where people with low incomes travel and work?

C. Should NHTSA require grantees to report on efforts, such as research or community outreach, that the manufacturer is planning, or has taken, to increase the likelihood that accessibility goals will be met?

Engagement with people with disabilities is critical to ensuring that vehicles and services will be accessible. NHTSA should require regular, ongoing reporting of the manufacturers' and operators' community outreach to a diverse set of disability stakeholders, taking into account a diversity of disability types and the actual and potential users living in the communities where the vehicles will operate. In addition, NHTSA should require manufacturers to report on their accessibility program, including the number of people with disabilities who are employed or contracted in research, design, testing, and operation of the vehicles and services. This information is important because companies with rigorous accessibility policies and employees with accessibility experience are more likely to produce products and services that are fully accessible. Providing this information should also be designed to hold companies accountable to building a pipeline of disabled professionals in automotive design, research, and deployment.

Moreover, as NHTSA and USDOT clarify the obligations around AV accessibility, we recommend establishing an AV accessibility and equity advisory committee. Members should include individuals with disabilities, organizations representing people with disabilities and older adults, historically marginalized communities, standard setting organizations, manufacturers, and operators. Ex officio members from relevant federal regulatory agencies should also participate. The advisory committee should meet frequently (e.g. quarterly) and make recommendations on issues that NHTSA or other USDOT administrations are actively addressing.

D. Is there other information related to accessibility that NHTSA should require from an entity when granting its petition?

In addition to requiring vehicles to be accessible and reporting on accessibility features, practices, and policies, NHTSA should require entities to report broadly on safety testing for people with disabilities. Manufacturers should report on whether they are testing pedestrian automatic emergency braking systems for disabled pedestrians, including those who use wheelchairs, service animals, canes, or other assistive devices or who have darker skin tones. Manufacturers should immediately report the cause of and response to any incident involving a crash or near crash between the AV and a person with disability, or crashes or incidents which involve passengers with a disability. Reports should include but not be limited to any unintended vehicle breakdowns and whether the disabled passenger was able to communicate with the service provider, safely exit the vehicle if needed, and identify alternative transportation. Manufacturers should also report on the effectiveness of restraint and occupant protection systems for people with disabilities during testing and after any incidents during travel. In deploying vehicles, manufacturers and operators should also track and report on any other barriers encountered by people with disabilities that may not be anticipated at the time the exemption is granted.

Conclusion

The undersigned organizations believe that NHTSA must take advantage of this important opportunity to set a high bar for equity, accessibility, and safety for people with disabilities. The exemption in question will set the baseline for future exemptions for autonomous vehicles and affect the future of transportation. The accessibility of AVs being released on the market today will affect whether people with disabilities can equitably use transportation systems for years to come. Granting an exemption for AVs can only help advance greater transportation accessibility for all users if the manufacturers address the diversity of disability accessibility needs and are held to a high standard for design, testing, and service implementation. Therefore, we urge NHTSA to set enforceable accessibility requirements, provide technical

assistance and guidance to manufacturers and operators, and require reporting on how accessible and safe these vehicles are for all people with disabilities.

Thank you again for this opportunity to provide comments. We look forward to continuing to work with NHTSA and USDOT to ensure the full potential of AVs is realized and to ensure accessibility and equity are woven throughout AVs from concept, design, and testing to deployment and use. Please contact CCD Transportation Task Force co-chair Sarah Malaier at smalaier@afb.org with any questions.

Sincerely,

American Council of the Blind
American Foundation for the Blind
American Printing House for the Blind
The Arc
Autistic Self Advocacy Network
Disability Rights Education and Defense Fund
Easterseals
Epilepsy Foundation
National Disability Rights Network
Paralyzed Veterans of America
Reeve Foundation
United Spinal Association

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[1] 49 CFR § 555.5(b)
[2] https://www.bts.gov/travel-patterns-with-disabilities
[3] After inaccessible TNCs entered the Chicago and San Francisco markets, accessible taxi service was impacted. Chicago rewrote an ordinance to require an increasing percentage of taxis to be accessible. Companies were initially required to increase the percentage from 5 to 10%, but the increase was instead left up to the Commissioner. In San Francisco every taxi company is required to provide wheelchair accessible service. Between 2013 and 2014, there was a 49% decline in wheelchair accessible pickups. Source: Rose, G. (Host). (2018 July 12). Ride Hailing Services: Wheelchairs and Seniors Waiting at the Curb (No. 37) [Audio podcast episode]. In Our American States. NCSL. https://www.ncsl.org/our-american-states/2018/07/12/ride-hailing-services-wheelchairs-and-seniors-waiting-at-the-curb-oas-episode-37.aspx
[4] CCD Transportation Task Force. Comment Letter on New Car Assessment Program, Docket No. NHTSA-2021-0002 (2022 June 8). https://www.c-c-d.org/fichiers/CCD-Transportation-TF-NHTSA-2021-Comments-060822-FINAL.pdf
[5] 49 CFR § 555.7(d)
[6] 49 CFR § 27.7(b)
[7] 49 CFR § 27.7(b)(4)

[8] Auto Alliance (October 16, 2019). Appendix A. AVs and Increased Accessibility Workshop Series Report. https://www.autosinnovate.org/innovation/av-accessibility/AVs-Accessibility-Workshop-Series-Report-16OCT2019.pdf. See also Series Presentations and Agendas, https://www.autosinnovate.org/avaccessibility

[9] USDOT Air Travel Consumer Reports: https://www.transportation.gov/individuals/aviation-consumer-protection/air-travel-consumer-reports. See also Air Travel Consumer Resources: https://www.transportation.gov/individuals/aviation-consumer-protection/consumer-resources.

[10] See 28 CFR. §§ 35.105 and 35.150(d)

[11] CCD Transportation Task Force (2022). Autonomous Vehicle Principles. https://www.c-c-d.org/fichiers/CCD-Transpo-TF-AV-Principles-May-2022.pdf

[12] USDOT Inclusive Design Challenge Resources: https://www.transportation.gov/inclusive-design-challenge/resources

[13] Foxx, A.R. (December 5, 2016). DOT Dear Colleague Letter (Equity, Access for Shared Mobility Initiatives). https://www.transit.dot.gov/regulations-and-guidance/policy-letters/dot-dear-colleague-letter-equity-access-shared-mobility

[14] United States v. Uber Technologies, Inc. No. 3:21-cv-08735-WHA (N.D. Cal. 2022) https://www.justice.gov/crt/case/united-states-v-uber-technologies-inc