



Shared Micromobility for All

Focus groups inform recommendations to increase access for people with disabilities

June 2025

veo

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Acknowledgments

We extend our gratitude to the 24 **community leaders and advocates** within the disability community who generously shared their lived expertise with us. Their nuanced and honest perspectives were instrumental in shaping this report.

We thank **Anna Zivarts, Director of the Disability Mobility Initiative, and Cecelia Black, Organizer at the Disability Mobility Initiative** for convening this diverse group of community leaders, guiding discussions on transportation and access, and providing valuable feedback throughout the research process.

We thank the **individuals who contributed to this research effort**: Paige Miller, Senior Manager, Policy & Communications at Veo; Celeste Brown, Policy & Partnerships Manager, Social Impact at Veo; Joe Bott, Sr. Policy and Partnerships Manager & Policy Counsel at Veo; Alex Keating, Head of Policy and Partnerships at Veo; Davis Tate, Senior Designer at Veo.

Finally, we would like to express our gratitude to the **people who will engage with this report**. It is our hope that the findings and recommendations presented here will inspire further dialogue, inform decision-making, and foster collaborative efforts to create mobility systems that better serve our communities.

Introduction

The arrival of shared scooters in 2017 saw micromobility companies deploying thousands of scooters nationwide without authorization. This disruptive entrance missed early opportunities for collaboration with city officials and community partners to introduce shared scooters and bikes in a way that enhanced accessibility, affordability, and harmony with existing transportation networks.

Eight years and nearly a billion trips later, shared micromobility has transformed, becoming a key part of U.S. transportation networks.¹ Micromobility programs have matured as providers have developed technological solutions, improved rider education, and worked with cities to better integrate shared scooters and bikes into city transportation networks.

Micromobility programs have made meaningful progress, but challenges remain—including sidewalk obstructions, inadequate infrastructure, and limited vehicle options—issues that can disproportionately impact people with disabilities. To help address these barriers, Veo partnered with the Seattle-based Disability Mobility Initiative and conducted focus groups in 2023 and 2024 to explore strategies for improving access.

This report outlines strategies to ensure that shared micromobility programs support—rather than hinder—the mobility of people with disabilities. While these findings represent a meaningful step forward, they are just the beginning. Ongoing collaboration with disability advocacy groups and city partners will be essential to translating these strategies into lasting change.



¹ North American Bikeshare and Scootershare Association (NABSA). A Micromobility Record: 157 Million Trips on Bike Share and Scooter Share in 2023. 2024. Available at: <https://nacto.org/latest/a-micromobility-record-157-million-trips-on-bike-and-scooter-share-in-2023/>

Our Commitment & Methodology

Our Commitment

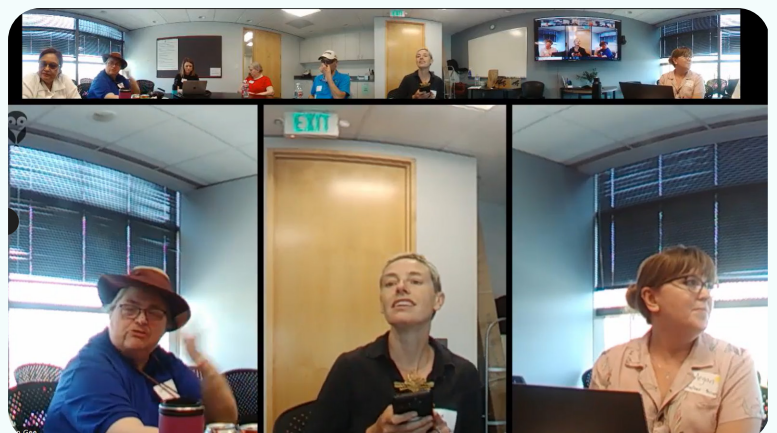
Veo acknowledges the industry’s historical indifference to the needs of people with disabilities. We recognize the need to take action to make streets and vehicles more accessible, and that the disability community offers essential insights into making this happen. Veo commits to actively collaborating with the disability community and translating their feedback into meaningful action to make micromobility truly accessible for all.

Methodology

In collaboration with the Disability Mobility Initiative, Veo held two focus groups to better understand how shared bikes and scooters can serve people with disabilities, focusing on themes like safety, sidewalk access, vehicle design, and other factors affecting mobility and ease of use. Sessions were offered in a hybrid format—both in-person and virtual—to accommodate participants’ needs, and community members and partners were compensated for their time and insights.

Many focus group participants represented local and regional organizations advocating for disability rights and access. The first focus group, held in May 2023 with 14 participants, provided data that informed a preliminary set of recommendations. In the second focus group, held in August 2024 with 13 participants, researchers presented these recommendations for further review. The feedback gathered during this second session helped refine and strengthen the recommendations to better align with the needs and priorities of the disability community.

This report summarizes key insights from these focus groups, emphasizing the critical role of ongoing collaboration in the planning, implementation, and management of shared micromobility programs.



Parking Key Terms

This report references several parking methods. To ensure clarity in our discussions, we define each of these styles below.



Free Floating Systems

When vehicles are parked at the edge of sidewalks, in bike racks, corrals, or other areas without strict location requirements.



Mandatory Parking Zones

When riders use a micromobility app to locate designated parking areas within their community, where vehicles must be parked in specified zones only.



Parking Corrals

When cities dedicate specific spaces for scooter and bike parking either on the sidewalk or on the street adjacent to sidewalks. This report recommends that cities install corrals on the street to preserve clear pedestrian access on sidewalks. Corrals can be combined with free floating or mandatory parking zones.



Cable Lock

A built-in cable lock that riders use to secure their vehicle to a bike rack or signpost at the end of their ride. This option can be used with either free floating or mandatory parking zones.

Executive Summary

This summary presents key recommendations from focus group feedback on improving the accessibility and safety of micromobility systems for people with disabilities. These initial insights offer guidance for city policymakers and micromobility providers working to create systems that better serve all residents. Detailed recommendations and context are provided in the main report to support thoughtful planning and implementation.

Recommendation #1: Clear the Sidewalk of Micromobility Vehicles

Vehicles parked and being ridden on sidewalks pose significant challenges for people with vision impairments and those using mobility aids.

Key Actions:

- Increase the number of on-street (off-sidewalk) parking corrals
- Expand protected bike lanes to encourage riders to travel in the street instead of on sidewalks
- Preserve accessible parking and loading zones for people with disabilities when adding parking corrals and bike lanes
- Use micromobility providers' influence to advocate for improved infrastructure
- Leverage technology (e.g., AI, cable locks) to enhance parking compliance
- Get creative with route planning and incentives to discourage sidewalk riding
- Collaborate with the disability community on audible noise technology
- Educate riders on proper parking practices and rules of the road

Recommendation #2: Improve Fallen Vehicle Detection & Reporting

Fallen or improperly parked vehicles can obstruct access for people with disabilities.

Key Actions:

- Advance vehicle tip-over detection technology
- Improve and standardize braille communication on vehicles
- Collaborate with the disability community to optimize fallen vehicle reporting systems

Recommendation #3: Increase Vehicle Access for People with Disabilities

Micromobility programs should offer accessible vehicle designs such as seated, throttle-assisted, and three- or four-wheeled options.

Key Actions:

- Provide accessible vehicle options, including seated and throttle-assisted models
- Develop new vehicle designs that further enhance accessibility
- Incentivize mixed fleets to meet diverse rider needs

Recommendation #4: Invest in Affordability and Access

Affordability remains a barrier, particularly for individuals with disabilities.

Key Actions:

- Maintain micromobility access for nondrivers and people without drivers licenses
- Increase access to accessible vehicles via community outreach, vehicle reservation systems, and more
- Provide discounted ride programs for people with disabilities
- Integrate fare payment with local transit systems

Recommendation #5: Invest in Workforce Development

Involve the disability community in micromobility workforce development.

Key Actions:

- Partner with the disability community on workforce development initiatives

Conclusion

These recommendations represent an early step toward building micromobility systems that better meet the needs of people with disabilities. Continued collaboration among cities, micromobility providers, and the disability community will be essential to adapting these solutions to local contexts to ensure lasting impact.

Recommendations

Recommendation #1: Clear the Sidewalk of Micromobility Vehicles

Focus group participants expressed an urgent need to remove scooters and bikes from sidewalks, emphasizing how the use of these vehicles on sidewalks complicates their daily travel. Vehicles blocking the pedestrian right of way create particular challenges for those with vision impairments and wheelchair users. Participants noted that even scooters and bikes parked on sidewalks according to city regulations can obstruct access.

Solutions such as on-street parking corrals and mandatory parking zones were identified to reduce these conflicts, though participants acknowledged the resistance cities often face when repurposing car parking spaces for such infrastructure.

This discussion raised a broader issue: sidewalks are frequently crowded with utility poles, bike racks, street lights, and outdoor dining, while road space remains largely untouched. **Cities tend to prioritize road space over pedestrian areas, leaving pedestrians and micromobility users competing for limited sidewalk space.** When considering street modifications, focus group participants urged cities to prioritize changes affecting car travel rather than pedestrian access.



For city policymakers

Action: Add on-street parking corrals strategically and at frequent intervals

Focus group participants strongly supported the installation of on-street parking corrals—located off the sidewalk—to keep pedestrian paths clear and reinforce that scooters and bikes are part of the street environment, not the sidewalk. Cities should place corrals strategically, at the block by block level in dense areas, to preserve the convenience of door-to-door travel. Participants also advocated for mandatory parking zones to ensure vehicles are parked only in designated areas. To be effective, these zones must be accessible and consistently available on every block, supporting program convenience and continued use.

"I am constantly stepping off to the side with my cane and into a scooter... It makes me bump into things, it makes other people bump into me, it makes me trip and feel uncomfortable and squished. I know people are trying to be conscientious but we actually need those unclaimed areas to navigate in the flow of traffic, particularly in busy areas."

- focus group participant

When installing corrals, participants recommended prioritizing high-pedestrian-traffic areas, such as city centers, transit hubs, and locations with narrow sidewalks. Cities can leverage data to identify optimal corral locations, focusing on high-volume trip start and end points and areas with frequent public complaints about mis-parked vehicles.



Action: Add protected bike lanes

Focus group participants strongly supported the installation of protected bike lanes. According to Veo's latest rider survey, most riders who report using sidewalks say they do so because it feels safer than riding in the street. Notably, 59% of these riders indicated they would stop riding on sidewalks if a protected bike lane were available, whereas only 33% would do so with an unprotected bike lane.² This feedback underscores the importance of quality bike infrastructure—cities should focus on creating widespread, connected, and protected bike lanes to effectively encourage riders to stay off sidewalks.

Action: Preserve parking and loading access for people with disabilities

While participants generally supported reallocating car lanes and parking spaces for more sustainable modes of travel, they emphasized the need to maintain and expand disabled parking spots and loading zones. As cities consider removing car parking or lanes, they should actively engage with the disability community to identify priority areas for preserving and increasing accessible parking and loading zones for those who rely on them.



For micromobility providers

Action: Get creative with route planning and incentives

To encourage riders to choose bike lanes over sidewalks, focus group participants recommended that micromobility providers integrate route-planning features in apps that prioritize routes with protected bike lanes. Incentives could include financial perks, such as ride discounts, or speed advantages, allowing riders to travel at an increased pace on routes with bike lanes.

Action: Collaborate with the disability community on audible noise technology

Focus group participants recommended implementing a soft, non-intrusive, low-pitched sound on shared scooters and bikes to enhance safety and help pedestrians anticipate approaching vehicles. They emphasized the need for consistency across all micromobility providers to establish a unified and predictable auditory experience.

² Veo. 2024 Rider Report: Rising to the Moment. 2024. Available at: <https://www.veoride.com/wp-content/uploads/2025/02/Veo-Annual-Rider-Survey-Report-2024.pdf>

Participants also expressed interest in testing various sound options and providing feedback to refine the technology further.

Action: Conduct rider outreach on proper parking and rules of the road

Focus group participants encouraged micromobility providers to send regular communications to riders, promoting responsible behavior, including proper parking practices and adherence to rules of the road, such as avoiding sidewalk riding.



For micromobility providers and city policymakers

Action: Leverage technology to improve parking compliance

Focus group participants encouraged providers to adopt new technologies to enhance parking compliance.

AI-powered parking tool: Veo recently launched an Artificial-Intelligence-enabled app feature that prevents riders from ending their trips until the system verifies the vehicle is parked correctly. Early results suggest the tool is helping more riders park properly. As the technology evolves, it will be an important part of supporting responsible parking behavior.

Cable locks: Focus group participants noted that even when parking corrals are available, riders don't always use them as intended. For this reason they supported the use of cable locks affixed to vehicles that require riders to secure their vehicle to bike racks or signposts at the end of their ride.

Cable locks come with tradeoffs—they can increase maintenance demands and introduce an extra step that some riders may find confusing or inconvenient. However, cities like Washington, DC, and Minneapolis, MN, have successfully implemented them, demonstrating their potential as an effective parking solution when applied thoughtfully and in the right context.

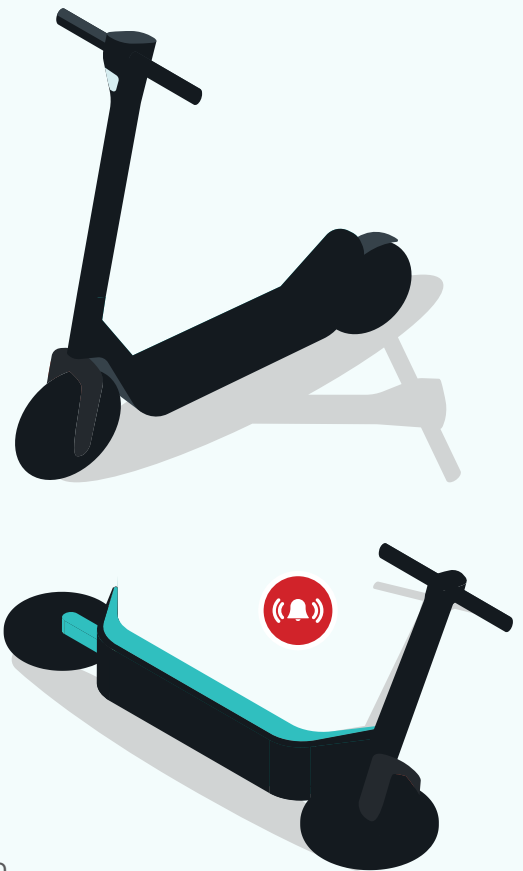


Recommendation #2: Improve Fallen Vehicle Detection & Reporting

Focus group participants overwhelmingly agreed that micromobility providers, not pedestrians, should be responsible for ensuring proper vehicle parking. However, they still wanted an option to report fallen or improperly parked vehicles. Redundancy in reporting methods was considered essential, as no single solution works for everyone.

Several participants voiced reluctance to physically interact with micromobility vehicles due to concerns about cleanliness and the risk of vehicles falling on them. This concern is especially significant for those who rely on tactile cues, like braille, to report issues, as it requires feeling around the vehicle.

Participants also emphasized the need to raise community awareness of reporting options, with some participants noting that they were unaware they could use their city's non-emergency hotline to report mis-parked vehicles. Participants stressed that any reporting system must be accompanied by a genuine commitment from micromobility providers to relocate reported vehicles, as trust in the process is vital for the community to use these methods.



For micromobility providers

Action: Advance tip-over detection technology

The best solution to address fallen vehicles, according to focus group participants, is automating the process. Veo is actively piloting technology that autonomously alerts fleet managers when a vehicle has fallen over, using sensors embedded in vehicles. These sensors detect when a vehicle tips over and trigger a notification to the fleet management system, so a local technician can retrieve the fallen vehicle. This fully-automated system eliminates the need for residents to report fallen and mis-parked vehicles, streamlining the process and improving overall efficiency.



For micromobility providers and city policymakers

Action: Improve braille communication on vehicles

Participants highlighted the importance of close collaboration between micromobility

providers and the disability community to improve the effectiveness of braille instructions on vehicles. Key recommendations include ensuring consistent placement of braille across all vehicles (such as on the handlebar stem) for easier access, ensuring braille adheres to established size standards, and designing braille signage to be read left to right rather than up and down. This uniformity will make it easier for individuals to interact with vehicles and report issues.

Action: Continue collaborating with the disability community to improve reporting mechanisms for mis-parked vehicles

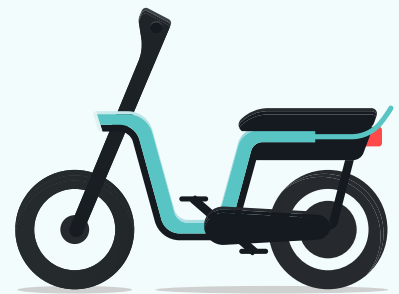
Participants recommended exploring additional reporting options, such as a QR code framed by a tactile square for easy identification, a service button on the vehicle, and/or an audible alert for fallen vehicles. Further exploration is needed to determine the viability of these options. Ongoing collaboration with the disability community will be essential in refining and implementing accessible and effective solutions.

"This system is broken. It does not work for me as a pedestrian. I am expected to do parking enforcement. I am not being paid and I don't have time. On my average day out, I encounter 15-20 bikes and scooters that are parked wrong. I had an argument with [a City representative] who wanted me to take pictures and read the braille numbers and I said 'I am at a bus stop where there are 12 bikes and scooters, and they are blocking the bus stop sign and sidewalk.' I said 'I don't have time, I am trying to go home.'"

- focus group participant

Recommendation #3: Increase Vehicle Access for People with Disabilities

Focus group participants expressed a clear demand for more accessible vehicle types. According to Veo's 2024 Rider Survey, approximately 17% of Veo riders nationwide have a disability, and many of these riders prefer seated, throttle-assisted vehicles over standing scooters.³ This data underscores the significant impact that vehicle form factors can have on accessibility.



Veo published a [separate report](#) outlining recommendations for improving access to micromobility through vehicle design. The report found that the following vehicle features increase access for adults aged 45+ and people with disabilities:

- **Throttles** that allow to propel themselves forward without pedaling
- **Seats** to provide access to riders who cannot stand for long periods
- **A low center of gravity** to improve balance, control, and comfort
- **Large tires** to provide a smoother ride, helping users navigate common street obstacles such as potholes, rocks, and uneven surfaces

3 Veo. 2024 Rider Report: Rising to the Moment. 2024. Available at: <https://www.veoride.com/wp-content/uploads/2025/02/Veo-Annual-Rider-Survey-Report-2024.pdf>



For micromobility providers and city policymakers

Action: Offer vehicles with accessible features to increase access

Focus group feedback and ridership data highlight the need to provide seated, throttle-assist vehicles with large tires and a low center of gravity. These features enhance accessibility for older adults and individuals with disabilities, improving comfort and ease of use.

Action: Innovate for a more accessible future

Focus group participants stressed that micromobility providers should prioritize innovation and community engagement to develop vehicles that expand access. They recommended introducing new vehicle types, such as three- or four-wheeled models and seats with back support, to better accommodate riders with disabilities. Participants also advocated for future fleets to include cargo capabilities for essentials like canes or oxygen tanks.

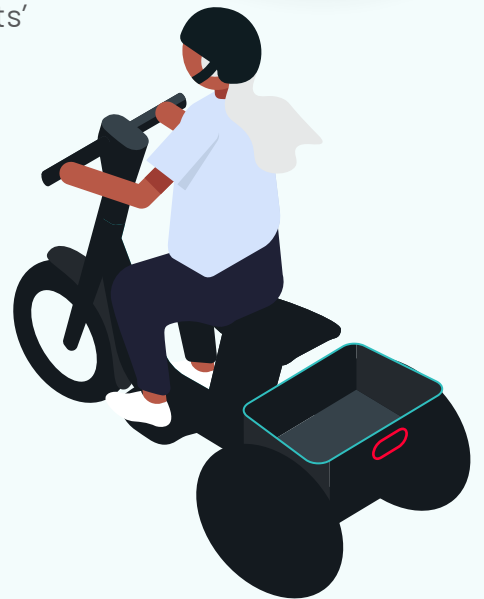
Participants also expressed interest in a vehicle capable of carrying passengers. In Veo's latest rider survey, 59% of respondents said they would use a two-seated vehicle to transport an adult friend or family member who can't operate a scooter or bike on their own but could ride as a passenger. The concept of a two-seated vehicle aligns with participants' interest in innovative use cases, such as a ride-hail system for micromobility vehicles that would allow people with disabilities to either drive or be driven, enhancing accessibility and creating job opportunities.

Action: Incentivize mixed fleets with accessible vehicles

Focus group participants highlighted that while seated vehicles improve access for some, others prefer standing options. To accommodate diverse preferences, micromobility providers should ensure their fleets include a variety of vehicle types. Cities can support this inclusivity by encouraging or requiring providers to offer mixed fleets when establishing regulations for micromobility operations.

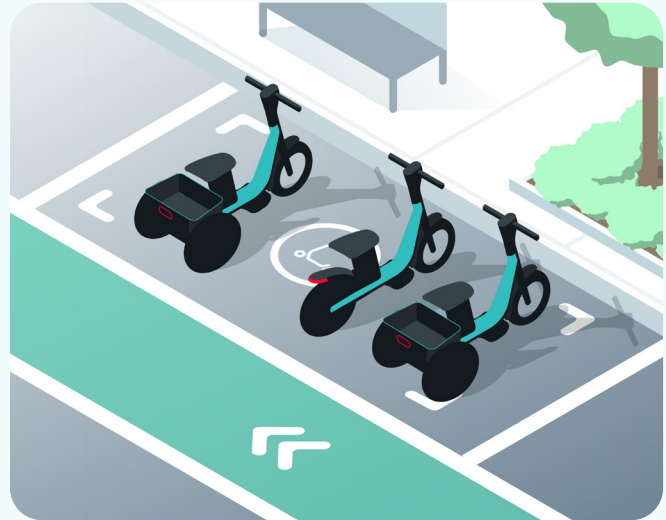
"The idea that there could be an accessible scooter that I could enjoy... that I got super excited about"

- focus group participant



Recommendation #4: Invest in Access & Affordability

Access and affordability remain significant barriers for many people with disabilities who rely on micromobility. In addition to having accessible vehicle types, members of the disability community need to be aware that accessible vehicle options exist, have easy access to them within their communities, and be able to pay for them easily and affordably.



For city and state policymakers

Maintain access for nondrivers and people without drivers licenses

It's essential to maintain access to micromobility services for individuals who cannot or choose not to drive. One-third of people living in the United States and 28% of Veo riders do not have a driver's license.⁴ The non-driving population includes people with disabilities and low incomes, unhoused or recently incarcerated individuals, undocumented immigrants, seniors, and more. Requiring a driver's license to use micromobility programs would disproportionately impact those with already limited transportation options, reducing their mobility and independence.



For micromobility providers and city policymakers

Action: Increase access to accessible vehicles

Focus group participants shared several recommendations to improve access to micromobility for people with disabilities. One idea was to introduce a reservation system that gives riders with disabilities extra time to access vehicles. Participants also recommended setting certain accessible vehicles to a slower default speed to help prevent non-disabled users from monopolizing them—ensuring these options remain available to those who need them most. In addition, they emphasized the importance of proactive outreach from micromobility providers and cities, so members of the disability community are aware of the accessible options available. Increasing awareness is key to ensuring these options are not only available but actually used, paving the way for broader adoption.

⁴ U.S. Department of Transportation. Highway Statistics 2020. Federal Highway Administration, Office of Highway Policy Information. Updated September 24, 2022. Available at: <https://www.fhwa.dot.gov/policyinformation/statistics/2020>

Veo. 2024 Rider Report: Rising to the Moment. 2024. Available at: <https://www.veoride.com/wp-content/uploads/2025/02/Veo-Annual-Rider-Survey-Report-2024.pdf>

Action: Offer a discount for people with disabilities

While many cities already require shared mobility providers to offer discounts for low-income users, participants supported extending similar discount programs to individuals with disabilities to increase access and affordability.

Action Integrate fare payment with existing transit payment systems

Some focus group participants noted that not owning a smartphone prevents them from accessing micromobility services. To address this, participants suggested integrating micromobility fare payment with local transit payment systems, such as Seattle's ORCA card. This approach would leverage existing payment networks to improve accessibility for those without smartphones or bank accounts.

Recommendation #5: Invest in Workforce Development

Focus group participants emphasized the need for micromobility providers and cities to actively engage in workforce development with the disability community. This could create meaningful local employment opportunities while ensuring that fleet management operations uphold accessibility standards.

***For micromobility providers and city policymakers*****Action: Engage in workforce development with the disability community**

Participants urged micromobility companies and cities to work together to create employment opportunities for people with disabilities, both on the ground and through remote roles. By involving individuals with disabilities in the workforce, providers can contribute to more accessible micromobility systems. Suggested roles include remote positions, such as dispatchers for downed vehicles or virtual fleet management coordinators, where critical thinking and strategic decision-making are key. Participants noted that individuals with disabilities could excel in monitoring maps and prioritizing vehicle retrieval, adding a human-led approach to accessibility that complements technological solutions.



Conclusion

This report highlights opportunities to improve access within micromobility programs, offering recommendations shaped by community feedback. Today, many people with disabilities remain under-engaged and underserved within micromobility programs. Progress starts with listening to the disability community and acting on their recommendations.

The recommendations outlined here are a starting point for deeper work. Veo is committed to continued dialogue with the disability community, recognizing that meaningful progress must be shaped by local context and lived experience. What works in one city may not translate to another—making sustained engagement with local advocates essential. Just as important is the need to build supportive infrastructure and implement policies that reflect these shared goals.

By working together, cities, micromobility providers, and the disability community can set a new standard for micromobility. To share your ideas or get involved, email communications@veoride.com.

