



EQUITY CONSIDERATIONS IN CURB MANAGEMENT

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URBANISM NEXT CENTER



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INTRODUCTION

As cities work to digitize curb management, it is essential to ensure that these efforts do not exacerbate existing inequities or introduce new harms. The potential of digital curb data lies in its ability to optimize space, reduce inefficiencies, and improve urban mobility—but these outcomes are not distributed evenly unless equity is considered from the beginning. This section highlights key considerations related to equity in curb data collection, policy design, and implementation.



DATA COLLECTION & ACCESSIBILITY GAPS

Curb data tools like machine vision, LiDAR, and LPR offer opportunities for cities, but if deployed only in better-resourced neighborhoods, there is a risk of reinforcing spatial inequities. These challenges are compounded by the possibility that these technologies may perform less reliably in dense urban environments, where obstructions and inconsistent signage reduce accuracy.¹ If underserved areas are excluded due to these limitations—or simply not prioritized for data collection—the resulting gaps can lead to inequitable curb allocations and missed opportunities for investment. Field surveys and ground-truthing remain essential to ensure full coverage and to avoid reinforcing disparities.

PRIVACY & SURVEILLANCE CONCERNS

Technologies such as LPR and camera-based enforcement offer efficiency but also raise privacy and surveillance concerns—particularly for communities facing disproportionate policing. Stakeholders emphasized the need for transparent enforcement practices and clear communication with the public about how curb data is collected, stored, and used. In Boston and other cities, there is growing awareness that automated systems must be deployed with care, ensuring that regulatory data is accurate, transparent, and equitably applied.² Building trust through engagement and robust privacy policies is essential to avoid unintended harm.

¹ Chang, K., Goodchild, A., McCormick, E., & Ranjbari, A. (2022). Managing Increasing Demand for Curb Space in the City of the Future.

² City of Boston interview, 2025



DESIGNING FOR INCLUSIVE CURB ACCESS

Equity in curb management means designing policies that serve a broad range of users—not just those with the most political influence or economic power. These users include delivery drivers, TNC passengers, transit riders, people with disabilities, and gig workers. In recent years, several cities have framed curb digitization as a means to advance equity—setting goals such as improving access to jobs, education, and essential services; increasing transparency through open data standards like CDS; and delivering more responsive curbside communication for underserved communities.³ These efforts reflect a growing recognition that curb policy must serve both community needs and operational efficiency.

Interviewees also noted that taking a holistic view of curb space—as part of a broader mobility system—can be an opportunity to advance equity. Decisions to reallocate curb space or remove parking in one area inevitably affect others. These ripple effects must be evaluated through an equity lens. For example, metered parking spaces temporarily occupied by construction or moving permits may displace access for nearby businesses or users without alternatives. Accounting for system-wide impacts and ensuring burdens are distributed fairly was also emphasized.

Ultimately, achieving equity in curb data and management requires cities to embed fairness into every step of the process—from how data is collected and shared to how space is allocated and rules are enforced. Without this commitment, even the most advanced digital systems risk reproducing the very inequities that cities seek to address. As cities expand these efforts, centering equity will be critical to ensuring that curb innovations contribute to more just, accessible, and inclusive urban environments.

As cities digitize the curb, they should consider:

1. Who is missing from the inventory?
2. Who can understand and access the data?
3. What risks may come with enforcement tools?
4. Is input collected from all curb users?
5. How are positive and negative externalities distributed?

³Open Mobility Foundation. (2025). The SMART Curb Collaborative.

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