

Accessible paths to improving curbs

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Dive Brief:

- Curb space is a finite and undervalued resource, especially in congested urban centers.
- Regulation of curb space can be used to prioritize access to transit and other shared-ride modes and indirectly influence the types and volumes of vehicle types using each urban street.
- Inventories of sidewalks, cycling routes, transit stops, ADA-compliant ramps, curb cuts and loading zones are vital resources for logistics planners, apps providing directional information, and pathway finders for people with disabilities as well as cyclists.

• The success of efforts to manage congestion in urban centers depends upon inventorying and efficiently assigning curb-space.

Dive Intro: Managing curb space is key to managing congestion on busy streets and in prioritizing efficient and attractive transit services. Curb space is a finite public resource sought by commuters, shoppers and students; freight/package delivery; public safety (e.g. fire hydrants); building access (curb cuts); and revenuers (parking meters). The value of a given length of curb space differs by location and with congestion. Consequently, an accurate local inventory of curb space has great value to regulators, traffic managers, companies that transport people and goods, street vendors, drivers, cyclists, micro-mobility users and even pedestrians.



Dive Insight: With the advent of new technologies, urban mobility is morphing towards distinct modes – some of which are new.

Single-occupancy auto traffic: This could, perhaps in a decade, divide between individuals driving cars which have to be parked vs. automated vehicles which are sequentially shared among individuals, travelling unoccupied between customers. Uber and Lyft riders, who normally don't share rides, should be considered within this category. As their riders are primarily ambulatory, they can

and should be dropped off on side-streets near their destinations, to preserve valuable curb space for more intensive uses. Those who drive their own cars will need to know where to park – with special notations on designated parking for people with disabilities.

Transit: Transit will continue to be the leading light among shared-ride modes, where automated vehicles, neighborhood or office/industrial park shuttles, taxis and app-based transporters meet at primarily suburban transit hubs to provide intermodal linked trips with a transfer to express, local and limited stop transit lines. In this scenario, downtown areas will continue to be served by buses and trains because those vehicles carry a lot of people while using relatively little space. Transit buses will continue to require sufficient curb space – usually just beyond the intersection – for the bus to pull in, allow riders to board and alight, and pull out of the stop. We've learned that successful main-line bus routes operate frequently (15 minutes or better) over an 18+hour span to attract more than one shift of workers, as well as shoppers and students. Streetcars and light rail vehicles will have their own stations while train stops will continue to be above or below ground level. Transit in many urban corridors has as many or more "choice" riders than those who cannot afford or are not able to drive.

Accessible designated spots: While many people with disabilities can use accessible transit services, some will continue to require a single point-to-point ride from ADA paratransit or human service transportation providers. In congested locations that attract these rides (for work, medical appointments, shopping, ...), designated stops by accessible pathways may be appropriate. As the dwell time for people with disabilities to board or alight can be lengthy, designated stops will reduce the threat of parking tickets or missed rides. These stops may be appropriate to share by designated time of day as street-side loading zones for package delivery.

Freight and package delivery needs guidance on when as well as where to make deliveries and pickups.

Pedestrian Pathways: Nobody floats to a transit stop. The major mode of conveyance in urban corridors is walking (or rolling) – so a database of pedestrian pathways including curb-cuts is very important.

Alternative Transportation Pathways: Cycling and some newer technologies such as scooters should be directed along pathways that may need protection from car traffic. Those pathways may be best located on streets that run parallel or perpendicular to major transit routes.

Alternative Transportation Storage: Storage of unused cycles and scooters is a safety issue for pedestrians and potentially could expose a jurisdiction to a Title VI Civil Rights or Americans with Disabilities Act protest if someone with a disability can't use the sidewalk or reach a building entrance.

To enable each of these modes to operate at peak efficiency, an online database showing curb space uses and assignments is necessary. That database can be replenished with local GIS files that are also used for asset management purposes including repair/maintenance needs and schedules. This online database should also be accessible to directional apps to provide directional information (e.g. Google Maps and the Transit App) and pathway finders for people with disabilities as well as cyclists.

Recommended Reading:

- <u>Curb Control</u>
- <u>Competition for the kerb is rising</u>
- <u>Managing your curb space</u>
- <u>Ahead of the Curb: The Case for Shared Use Mobility (SUM) Zones</u>
- <u>Managing the curbside in the age of e-commerce and congestion</u>
- <u>Curb Appeal White paper</u> (white paper is a particularly worthwhile read)
- <u>Curbside management resources</u> with links to case studies (especially see the third)
- Public works asset management software programs can be used to store a curb space inventory in conjunction with <u>ARC GIS software</u>. These software providers include Assetworks, CityWorks, PubWorks, SEMS Technologies, and Cartegraph. Asset management software also enables jurisdictions to assess the state of repair and need for rehabilitation or replacement of public assets including sidewalks.



Steve Yaffe, proprietor of <u>Yaffe Mobility Consulting LLC</u>, co-chaired the 2019 TRB International Conference on Demand Responsive and Innovative Transportation Services and is a member of the TRB Transformative Trends in Transit Data Subcommittee. He retired in 2018 as the Transit Services Manager for the Arlington County Department of Environmental Services –

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Transit (ART) fixed-route transit as well as Specialized Transit for Arlington Residents (STAR). STAR is the local paratransit alternative to MetroAccess, the DC metropolitan area ADA paratransit service.



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