



URBAN FREIGHT SOLUTIONS

Managing parcel volumes

2. Parcel lockers



Photo: Urban Freight Lab

Parcel lockers, like the Belltown Parcel Locker in Seattle, provide a contactless method for parcel deliveries.

Challenge: The rise of online shopping means parcels are becoming a bigger segment of urban deliveries, leading to longer unloading times and, when left on individual doorsteps, an increased risk of missed or stolen packages.

Solution: **Parcel lockers** are very small storage units located close to the final delivery point in urban or rural areas, which can be conveniently accessed by customers. They can be placed in residential or commercial buildings, or in public spaces.

Why: Parcel lockers provide a way to deliver parcels more efficiently. Couriers can reduce unloading times, the time spent looking for parking and time spent occupying parking spaces by delivering packages to one secure location instead of several doorsteps. During the COVID-19 pandemic, parcel lockers also offer a contactless method for parcel deliveries, which can be especially important in low-income, racialized, and retirement communities, which have been disproportionately impacted by the pandemic. Parcel lockers also reduce the risk of missed deliveries — when a customer is not at home to receive their items — that require couriers to return on another day.

City spotlights: Seattle, U.S.

In Seattle, Washington, the [Urban Freight Lab](#) at the University of Washington [piloted a parcel locker](#) in 2018 at the Seattle Municipal Tower which reduced delivery times by 78 percent and resulted in zero missed deliveries. The pilot used a common carrier system which means the locker may be used by any retailer, carrier and goods purchaser allowing smaller local businesses to gain the same benefits that larger corporations like Amazon and UPS get with their branded single carrier lockers. It was located in a commercial space to increase delivery density, reduce the time spent by couriers at the curbside, and provide a secure delivery location.

Taking Action

Identify viable sites in delivery dense areas

Identify a common carrier vendor

Work with building managers and city departments for approvals

The initiative is a public-private partnership between retailers, freight carriers, parcel delivery companies, a locker provider company, real estate company CBRE, and the City of Seattle Department of Transportation. Funding for the project came from the US Department of Transportation through the Pacific Northwest Transportation Consortium, a consortium of transportation research universities in the region, and the Seattle Department of Transportation.

The success of the Seattle Municipal Tower parcel locker led to the US Department of Energy funding the Urban Freight Lab to do a larger study, which includes evaluating the efficiency of three more common carrier parcel lockers across Seattle, including the [Belltown Parcel Locker](#) placed in a public parking space operated by Urban Freight Lab member REEF, the largest operator of mobility, logistics hubs, and neighborhood kitchens in North America.

For implementation:

- Parcel lockers could be located in residential, commercial, or public spaces. Identify viable sites by targeting areas that could benefit from increased delivery density, specifically looking at areas that could benefit from reduced dwell time of delivery trucks.
- Common carrier parcel lockers allow more couriers to use the system, maximizing convenience for locker users, reducing delivery times for couriers, and reducing emissions in the city. Identify a common carrier vendor to install, operate, and maintain the parcel locker.
- Engage relevant actors when studying the feasibility of a parcel locker to optimize its use and safety. Work with residential and commercial building managers, and city departments to get approvals for parcel locker installations.

Business spotlight: Scaled deployment of parcel lockers

E-commerce platform Amazon has parcel lockers located in [900 U.S. cities](#) and [100 Canadian cities](#). This speaks to the widescale deployment needed for parcel lockers to lead to a significant improvement in cities. Enabling common carrier lockers would allow more businesses to participate in the parcel locker network and bring the benefits to thousands more businesses and people.

