Urban Delivery by Bike

Practitioner Paper

National Association of City Transportation Officials

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Over the past two decades, with the rise of online shopping platforms and on-demand food delivery, North America has experienced a dramatic increase in the volume of deliveries.

Cities are at the crossroads of this transformation. Most deliveries start or end in cities, and governments are looking for solutions to meet the demand. Curbside parking and loading space is a congested, contested resource. The increasing numbers of vehicles delivering goods increase travel time, worsen air quality, and make streets less safe — especially when they park illegally or rush to meet deadlines.

While cities face the most challenges related to deliveries, their relatively dense environments and transportation networks put them in a unique position to act.

City governments across the U.S. and Canada are addressing the ever-increasing demand by incentivizing and regulating deliveries by bike. Although there's no one-size-fits-all approach to supporting bike deliveries, cities of all sizes can use these experiences to prepare.

The right strategy depends on each city's unique context: How bikeable are the streets? How intense is the delivery activity? How are different types of e-bikes regulated? Are there places to park and store delivery bikes?

Here's how any city can harness the possibilities of delivery by bike:

1. **Terms and Concepts to Know.** Learn how bike deliveries operate — from food to freight.
2. **Essentials for Urban Delivery by Bike.** Assess the city's regulations, curbside delivery environment, and bike infrastructure.
3. **Strategies to Grow Delivery by Bike.** Understand the potential strategies city staff can use to support delivery by bike.
4. **Work with Stakeholders.** Understand the existing and potential stakeholders and their needs before deciding what changes to make.
5. **Actions to Support Delivery by Bike.** Decide which next steps to take.

Terms and Concepts to Know

TYPES OF DELIVERIES

From a logistics perspective, there are two categories of deliveries conducted by bike: parcel delivery and on-demand delivery.

PARCEL DELIVERY

Parcel delivery is the delivery of multiple parcels along a single route. The delivery rider typically loads a large number of goods from one location and delivers the packages to multiple locations on each trip.

Parcel deliveries include:

- Last-mile deliveries (e.g., online shopping)
- Local business-to-business deliveries (e.g., from a flower distributor to a florist)
- Local deliveries ordered directly from a store or business (e.g., groceries, laundry)

ON-DEMAND DELIVERY

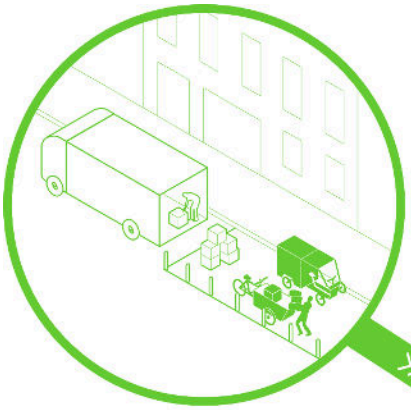
On-demand delivery is the delivery of a relatively small amount of goods ordered through an on-demand service. The delivery rider makes frequent trips to and from a business or store and typically delivers to only one or two destinations on each trip.

On-demand deliveries include:

- Local deliveries that are ordered directly or through a third-party application, typically within an hour or less (e.g., meals, pharmacy orders)

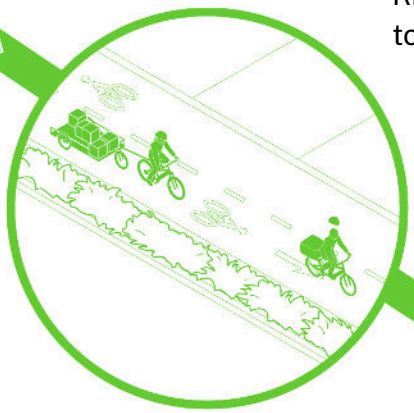
DELIVERY STAGES

Delivering goods by bike includes three distinct stages:



LOADING LOGISTICS
Putting the right package on the right bike.

- For parcel deliveries where packages are transferred from a truck, companies use a staging area, often formalized as a microhub.
- For on-demand deliveries, this will typically be done in front of a store.



TRANSPORTATION
Riding the bike to move the package to the destination.

- Encouraging widespread delivery by bike requires cities to invest in a connected, safe bike network designed to accommodate larger bicycles.

PARKING AND FINAL DELIVERY
Parking and delivering the package.

- Typically, the operator parks close to the delivery destination, and this is a short stop.
- Periodically, the operator may need to take additional time to reorganize parcels.
- Bike parking infrastructure should accommodate wider and longer bikes; typical bike rack spacing and types may not be appropriate.

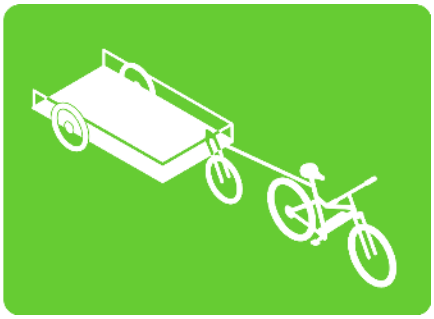
TYPES OF BIKES

Bikes used for urban delivery vary in width, length, and weight, and are typically, but not always, electric. Although any bike can be used for either parcel or on-demand deliveries, there are some common trends.

Parcel delivery riders often use larger bikes with more carrying capacity:

QUAD BIKE
Four-wheeled electric-assist bike with an enclosed rear cab.

CARGO BIKE
Two- or three-wheeled bike, typically electric-assist, with a cargo bucket in the front or back.



BIKE WITH TRAILER
Two-wheeled bike, typically electric-assist, with a two- or three-wheeled trailer.

On-demand delivery riders often use bikes with racks or wear backpacks to carry deliveries.

BIKE WITH RACKS
Two-wheeled bike, electric-assist or pedaled, with a rack, typically in the rear.

STANDARD BIKE
Two-wheeled bike, electric-assist or pedaled; the rider uses a backpack or other bag to carry goods.

Review local and state laws, rules, and regulations to understand if and how bike types are defined and what their operating constraints are. Larger bikes and throttle-powered bikes may be more limited than electric-assist or pedal-only bikes.

E-bikes are commonly categorized into Class 1, 2, or 3 based on maximum speed and whether or not the bike includes a throttle that allows the operator to propel the bike forward without pedaling. Some e-bikes can go as fast as 28 mph (45 km/h), but these speeds are not necessary for efficient deliveries. Cities may regulate fleet-level speed maximums through business permitting, regulations, or laws.

For more on laws and regulations, see *Essentials for Urban Delivery by Bike*.

Essentials for Urban Delivery by Bike

SAN FRANCISCO, CA
Credit: GRID Alternatives

Bike deliveries are already happening in cities across the United States and Canada. City transportation leaders and staff can ensure they are ready to support bike deliveries by evaluating the city's **regulatory landscape**, **current curbside delivery environment,** and the **bike network quality**.

LAWS, REGULATIONS, AND POLICIES

Determining local opportunities for delivery by bike must include a review of existing laws, regulations, and policies at the state and local levels. This understanding will shape programmatic work, training, or communications around bike delivery.

In most locations, state law defines the physical requirements for bikes and e-bikes and where they may operate. Cities need to understand the regulatory landscape, including:

- **Definitions:** How do state laws define bikes and types of e-bikes? Are any bike types not defined in state law? What types of bikes are legal? Any definition of a bike that limits the width, length, weight, number of wheels, speed, or other specific mechanics may prohibit using a specific type of delivery bike.
- **Operations:** Do state laws or regulations dictate where bikes or certain types of bikes can operate? What types of bikes are allowed in bike lanes, bike paths, general travel lanes, and on trails? Legal requirements to ride in bike lanes or that prohibit

bikes on paths may limit the potential for bike delivery or introduce personal safety challenges for riders.

- **Local control:** Do municipalities have the ability to further define legal operations via local regulations? Local rules and regulations are most likely where bike parking is addressed, but other programmatic needs may be governed through local permitting, traffic regulations, or other local functions.
- **Gaps:** Are there gaps or potential inconsistencies in current laws, regulations, and policies? These will impact what types of delivery programs are practical in the short and long term. For example, explicitly allowing quad bikes and some cargo bikes to operate on city streets or bike lanes may require changes to either state or local laws and regulations.

Before engaging with delivery partners and stakeholders, get clear on what is and isn't present in the regulatory landscape. The equipment to start delivering goods by bike can be expensive. A supportive regulatory environment allows private companies and individuals to confidently invest in delivery by bike.

CURBSIDE DELIVERY ENVIRONMENT

Most cities face challenges when managing curbside access for the increasing number of deliveries. The extent of these challenges will inform the scale to which deliveries can be shifted from vans and mopeds to bikes.

Shifting some deliveries to bikes can help address:

- Congestion from large trucks, vans, or cars double-parking or parking on the curb while completing deliveries.
- Safety impacts from delivery vehicles blocking sidewalks and bike lanes while completing deliveries.
- Worsened air quality from vehicles idling while making deliveries.

City policies and strategies around delivery by bike can help address:

- On-demand delivery riders congregating on sidewalks, blocking pedestrian access.
- Unsafe or unregulated e-bikes, mopeds, and e-scooters.
- High-speed electric devices being ridden unsafely in bike lanes or on high-volume sidewalks.

BIKEABLE STREET NETWORK

A connected network of safe bikeways makes biking within and between neighborhoods efficient and convenient. From wide protected bike lanes to traffic-calmed local streets, a

bikeable street network allows private companies and individuals to confidently invest in making their deliveries by bike.

When planning bike networks, cities should take delivery needs into account by:

- Building all ages and abilities bike facilities — including protected bike lanes, local bike routes, contraflow bike lanes, and bike paths — that are appropriate for the local context, motor vehicle speeds, and motor vehicle volumes
- Designing bikeways and intersections that accommodate wider and longer bicycles.
- Considering high-traffic or potentially high-traffic bike delivery routes when designing networks and prioritizing projects

See NACTO's *Urban Bikeway Design Guide* for guidance in developing and delivering a bike network that is safe and convenient for all bike riders.

Strategies to Grow Delivery by Bike

ARLINGTON, VA
Credit: Beyond DC, Flickr

Supporting delivery by bike will look different from city to city. Some of these strategies will require minor modifications or changes in focus, while others may require a programmatic change or dedicated funding.

CONNECTED BIKE NETWORK FOR DELIVERIES

Necessary for all types of deliveries

Many cities in the U.S. and Canada are developing bike networks. Expanding their scope to specifically include the needs of delivery workers and their bikes will result in more bike deliveries.

Bike networks must include wide protected bike lanes, safe local streets, and off-street bike paths designed to accommodate faster speeds and a wider range of devices, including

e-bikes and cargo bikes. Intersections should be designed to accommodate larger volumes of bikes and the specific handling needs of cargo bikes as they turn.

People who work using bikes also benefit from infrastructure that limits interactions with police, as every interaction risks lost time and money.

BIKE PARKING

Important element for all types of deliveries

People delivering packages by bike require frequent opportunities to securely park. Municipalities should establish or adapt bike parking programs to offer parking, including on-street bike corrals, where deliveries frequently begin and end. Cities should also clearly communicate the parking rules for bikes of various sizes.

Interviews with delivery riders can inform bike parking investments, as parking needs will vary based on delivery stages, types of deliveries, and types of bikes. For example, a delivery rider, working against the clock when dropping off a single package at a residential address, may prefer to use a wheel-lock in an on-street parking space instead of locking to a bike rack halfway down the block. Conversely, a delivery rider waiting for an order may want to lock their bike to a secure rack.

MICROHUBS

Important element for parcel deliveries

A microhub is a physical location where large volumes of goods are transferred onto bikes. It can be a small logistics center where packages are transferred from trucks or an additional loading space in front of a business with frequent deliveries (e.g., a busy restaurant or grocery store). Microhubs can be located in on-street parking spaces, off-street parking lots, or inside designated storefronts.

Aside from the physical space to load packages, microhubs may have additional infrastructure that supports delivery operations. Models may include:

- **Microhubs designed to transfer goods directly from a truck to a bike**, often designated with simple markings and signs.
- **Microhubs with storage areas, such as a shipping container or a storefront**, allow truck drivers to drop off or pick up packages without needing to transfer packages directly to or from bike delivery riders.
- **Microhubs with modular bike lockers or battery charging cabinets** that support delivery riders during breaks, extend delivery ranges, and provide designated areas for bike storage.

When designating a microhub, review zoning and land use codes and regulations to determine if microhubs are a supported use. In some cases, allowing microhubs may require enabling legislation, zoning changes, or other regulatory updates.

BATTERY CHARGING AND SWAPPING

Helpful for all types of deliveries

Setting up charging locations or secure battery swapping stations helps people make more trips efficiently and safely. Unregulated batteries carry risks: if batteries or chargers don't meet safety standards, they may overheat, leading to explosions or fires. Charging infrastructure that meets ULSE standards for battery safety can help centralize charging activities and reduce fire risks. Cities can require delivery riders and companies to use safe batteries and incentivize this practice by providing safe locations to charge.

SUBSIDY PROGRAMS

Helpful for on-demand delivery, could support parcel delivery

Subsidy, rebate, or bike library programs can help delivery workers or small businesses shift their trips from car or moped to bike when the cost is a barrier.

A delivery bike subsidy program could be developed as a stand-alone program for local workers or incorporated into a broader bike subsidy program. Program designers may consider partnering with local businesses, employers, or third-party delivery apps to identify workers who would benefit from the program.

Local needs should inform efforts to subsidize delivery bikes. Common strategies include:

- Directly purchasing or offering a rebate on e-bikes for delivery workers interested in transitioning from mopeds or automobiles to e-bikes.
- Offering trade-in programs to incentivize delivery workers to trade in potentially unsafe e-bikes for those that are tested and certified to meet UL standards.
- Incentivizing third-party bike rental services to increase local access to e-bikes. Such programs typically offer monthly rentals with maintenance services, and some provide a rent-to-own option.
- Incubating or subsidizing a third-party business to offer bike delivery to other local businesses.

Cities may consider implementing an education and training program alongside delivery bike subsidies, especially if the program serves workers who had previously been using automobiles or mopeds. Safe spaces to learn how to handle heavier cargo-carrying bikes, adjust the electric-assist settings, and safely navigate city streets can be especially helpful.

BUSINESS PERMITTING

Helpful for all types of deliveries

A permitting program for businesses using bikes for deliveries can establish minimum safety standards and create a process for registering businesses and bike fleets. This aspect of a bike delivery program may involve a city's economic development, small business, or law departments in partnership with transportation staff.

OUTREACH, EDUCATION, AND TRAINING

Helpful for all types of deliveries

Outreach and training efforts are a powerful way to support and invest in delivery workers and businesses interested in bike-based delivery services. Cities may establish voluntary opportunities for bike delivery operators to participate in these programs, or require logistics companies to participate as part of a delivery by bike permitting system.

Effective programs equip delivery riders with the knowledge and confidence they need to make the shift to deliveries by bike through:

- **Outreach:** Create connections and communication channels with delivery workers. This allows city staff to have meaningful dialogues with the people operating delivery bikes and understand their needs. Delivery workers can also share their feedback on bikeways and bike parking with the city.
- **Education:** Ensure workers know their rights regarding wages, safe working conditions, and how to get help in the event of a crash. Delivery workers also need to be informed about battery safety.
- **Training:** Share practical guidance to help bike operators navigate their jobs, especially those new to making bike deliveries. A curriculum might cover how to maintain e-bikes, safely charge and switch out batteries, and operate bikes — especially larger e-bikes used for deliveries — on city streets.

Delivery workers must be informed about the policies that affect them, from bike registration and parking guidelines to helmet requirements. Involve delivery riders, unions, and employers to ensure that training and education programs reflect real-world needs and open the door to further dialogue.

Work with Stakeholders

NEW YORK CITY
Credit: NYCDOT

Cities are most successful in supporting delivery by bike when they **address a specific challenge and co-create solutions with target user groups.**

In many cases, courier companies or local businesses may approach local governments with proposals for starting bike delivery programs. To have these conversations, it's important for city staff to already understand related regulations, the curbside environment, and bike network needs. (See *Essentials for Urban Delivery by Bike*.)

City staff should brainstorm with a broad set of stakeholders to address challenges, promote bike delivery, and support businesses interested in starting bike delivery programs.

- **Talk to stakeholders to critique assumptions**. Assumptions about what will make for a successful program may not match the priorities and needs of parties making deliveries, those receiving them, or the availability of resources. Early in the process, communicate with delivery stakeholders, understand their needs, and identify alignment.
- **Establish the team.** While engaging delivery stakeholders, identify an internal team of city stakeholders. To manage the program effectively and avoid implementation

delays, the internal team should hold diverse roles across several city agencies to align goals, policy changes, and programs across departments.

- **Build flexibility into the process.** Frequent communication with delivery operators, workers, small businesses, and other stakeholders will be key in determining what is and isn't working for them. A collaborative and iterative process that allows for experimentation on all sides will allow cities to balance their priorities with those of delivery partners.

COMMON STAKEHOLDERS

Facilitating the flow of goods and services in urban contexts is no less complicated when shifting to bike deliveries. Consider the complex network of stakeholders involved in moving and storing packages, food, and other goods across the city.

Large Logistics and Bike Courier Companies

Logistics companies interested in delivery by bike will typically approach city officials to discuss what they need to support a mode shift. Logistics companies need to train workers, procure and manage e-bike fleets, and share delivery data through data agreements with the city.

Small Businesses, Restaurants, and Meal Vendors

Businesses already engaged in bike delivery services can share valuable insights on their challenges and needs. Those who haven't yet adopted bike deliveries but are excited about the idea can help the city identify the barriers to making this transition.

Business/Community Improvement Districts

As representatives of local businesses, improvement districts may approach the city with delivery challenges they hope to address, such as congestion or a lack of charging facilities. The city may want to approach improvement districts to facilitate business outreach and recruitment or to identify appropriate locations for bike corrals, microhubs, or charging stations.

Delivery Workers and Worker Unions

Delivery workers have the most intimate knowledge of on-the-ground delivery logistics, and their perspectives are invaluable to any delivery intervention. Bike delivery operators can identify gaps, such as a lack of battery swapping cabinets or secure bike storage. They can also identify barriers impeding the switch to e-bikes.

Workers' associations and unions can connect the city to workers to understand their interests and concerns about shifting to bike delivery. Unions can also communicate labor laws that cities need to consider.

Legal and Policy Staff

City staff members who interpret the law and create environmental policies, zoning, and other rules and regulations will be necessary partners in establishing policies, changing regulations, and developing new permitting programs. Ensure that they have the resources to understand local and state laws regarding bikes and the city's goals regarding bike delivery.

Fire Department

The fire department can communicate safety preferences around bike charging infrastructure, microhubs, or bike corral placement. Fire departments can be powerful advocates for battery charging or subsidy programs, particularly when unsafe devices can be swapped for those that are certified to meet ULSE standards.

Parking Management and Enforcement

Parking management teams at the city can transition existing parking spaces to expand loading zones, create bike corrals, or add storage capacity to microhubs. Parking enforcement teams can monitor curbside loading spaces to prevent illegal parking that blocks delivery bikes. Parking enforcement, code enforcement, or project staff can periodically monitor high-demand areas to ensure that e-bikes do not block pedestrians from using sidewalks or park in unauthorized locations.

Implementation Partners

Implementation partners that help facilitate delivery by bike programs might include nonprofits, community-based organizations, advocacy organizations, or universities. These organizations can hold a number of roles, including:

- Identifying community partner organizations.
- Conducting market research on bike procurement.
- Serving as the point of contact for delivery workers.
- Performing participant case management.
- Educating delivery workers on regulations.
- Surveying delivery workers throughout a program's lifespan.

Local Bike Shops

E-bikes used for delivery will need regular maintenance, and local bike shops will act as the primary maintenance providers. City officials can identify bike shops that maintain e-bikes and connect local businesses and delivery riders with them.

Actions to Support Delivery by Bike

NEW YORK CITY
Credit: NYCDOT

With an understanding of the local bike delivery landscape and needs, city staff can identify where to direct their efforts. Here are some specific steps to consider:

Legal environment

A supportive legal and regulatory environment can clear the way for increased delivery by bike. City staff must understand what's currently on the books before recommending specific strategies.

- ☐ **Keep it simple:** Consider what's possible within the existing legal landscape before looking to adopt new regulations, policies, or laws.
- ☐ **Define bikes:** Research and document any state and local definitions of e-bikes, cargo bikes, and quad bikes. Ideally:
  - ☐ E-cargo bikes or quad bikes are not prohibited based on size, number of wheels, or other requirements.

- ☐ Width and length requirements are flexible (some quad bikes are up to 4 ft / 1.2 m wide).
- ☐ People can ride cargo bikes or quad bikes in bike lanes and in general travel lanes.
- ☐ Bikes can be parked on the sidewalk and on the street.

Community engagement and education

Residents ultimately benefit from more deliveries by bike, even if a city's work is directed toward businesses and delivery workers. Share strategies and get feedback from community members to address delivery challenges.

- ☐ **Local outreach:** Plan for community engagement with residents near distribution centers, microhubs, and on-street bike corrals.
- ☐ **Share details online:** Make information about delivery by bike publicly available on the city's website and in other communications.
- ☐ **Demonstrate specifics:** Consider bringing delivery bikes to community events and block parties to familiarize residents with the bikes they'll see.
- ☐ **Introduce partners:** Invite delivery stakeholders to community engagement events. Create connections between third-party companies and communities so that companies can be more directly accountable to residents.
- ☐ **Support immigrant and undocumented communities:** Bike delivery can provide economic opportunities for immigrant and undocumented populations. Consider investing in relationships with local organizations providing legal and social assistance to immigrant communities as part of an outreach effort.

Data collection and program evaluation

Ongoing evaluation and reporting can help cities understand and communicate the efficacy of delivery by bike. Scale the evaluation effort to match the work: more substantial programs should involve more substantial evaluation, but even small efforts benefit from an evaluation.

Consider data sources (qualitative and quantitative), analysis needs, and data collection timelines. Adapt the work in response to analysis and feedback.

- ☐ **Identify resources:** Identify how data, mapping, and analysis could be integrated into existing work streams or if additional resources are needed. Consider collaborating with local universities, non-profit partners, or other research hubs to increase data

collection and analysis capacity. Data can be collected via periodic community meetings, ongoing online feedback forms, and user-generated maps of bike parking needs.

- ☐ **Create data-sharing agreements:** For large-scale delivery programs led by private companies, identify data needs and create data-sharing agreements that directly support project evaluation goals.
- ☐ **Get feedback from riders:** Use intercept surveys or focus groups to check in with delivery riders before, during, and after an intervention.

Connected bike network for deliveries

Bike networks that support delivery by bike advance key connections and designs that accommodate faster speeds and a wider range of devices. (See NACTO's Urban Bikeway Design Guide.)

- ☐ **Identify network gaps:** Evaluate the quality and connectivity of the bike network along delivery routes, especially near business districts, potential microhub locations, or other high-traffic areas.
- ☐ **Plan network projects to support delivery bikes:** Prioritize wider protected bike lanes along strategic commercial corridors to accommodate wider delivery bikes and more frequent passing.
- ☐ **Update typical designs and standard details:** Engineering standards that reflect the needs of common delivery bikes — typically a bit faster, heavier, wider, and longer than regular bikes — can make project design and delivery more efficient.

Bike parking

Adding more bike parking that accommodates wider bikes near interested businesses can be a low-cost first step to supporting more delivery by bike.

- ☐ **Keep sidewalks clear:** Allow people to park their bikes on sidewalks for short periods of time, as long as the bikes do not block the pedestrian path of travel.
- ☐ **Accommodate large bikes:** Update bike parking design standards for racks and on-street corrals to accommodate wider and longer bikes.
- ☐ **Identify parking demand:** Interview delivery riders to understand parking activities and durations.

- [ ] **Design for flexibility:** Convenient and practical mechanisms (e.g., parking requirements, legislation, new sign plaques) can accommodate flexible short-term parking and loading.
    - [ ] Design flexible on-street spaces for loading packages onto bikes.
    - [ ] Allow bikes to use existing on-street vehicle parking and loading spaces.

Microhubs

Successful microhubs require strong partnerships between city departments and with private partners.

- [ ] **Identify land use restrictions:** Review and update zoning codes, if necessary, to ensure the development of locally preferred types of micro hubs.
- [ ] **Design details with delivery partners:** Work with delivery partners to ensure the design and location of a microhub will address specific needs. Let delivery partners take the lead in making decisions whenever appropriate. Consider:
    - [ ] Whether structures such as tents or shipping containers are necessary, and which permits will be required.
    - [ ] Secure indoor locations with bike storage, break space, and restrooms.
    - [ ] Connections to the electrical grid for battery charging and swap cabinets.
    - [ ] Whether paving is necessary, if sited in open lots.
- [ ] **Leverage partnerships to facilitate logistics:** Collaborate with land owners and other stakeholders such as university partners, business improvement districts, and other city departments to identify locations for easy-to-implement microhubs.
- [ ] **Clarify partner responsibilities:** Identify partner roles in decision-making processes, funding, and maintenance of microhub sites and structures.

Battery charging and swapping

To reduce fire risks, require compliance with local safety standards.

- [ ] **Establish local safety standards:** Work with fire department to establish charging requirements that meet ULSE standards.
- [ ] **Make regulations understandable:** Share requirements and standards, in simple terms, directly with delivery riders.

Subsidy programs

Design a subsidy program that addresses local needs based on feedback from a broad range of stakeholders, including current delivery workers, worker unions, local bike shops, employers, and/or business improvement districts.

- ☐ **Clarify equitable eligibility requirements:** Establish who is eligible and if there are any program requirements (e.g., how many bike deliveries people or businesses need to conduct).
- ☐ **Identify workers:** Partner with unions, community organizations, employers, or third-party delivery apps to identify workers who would benefit from the program.
- ☐ **Support workers with charging and storage:** Collaborate with delivery riders and local businesses to identify where bikes can be securely stored and safely charged. Consider centralized storage and battery charging locations as needed.
- ☐ **Build knowledge:** When providing bikes to new riders, prioritize education campaigns on safe e-bike charging, storage, and riding. (See Outreach, Education, and Training.)

For programs that directly purchase bikes for business or delivery workers:

- ☐ **Define ownership:** Determine bike ownership requirements: are bikes returned to the program administrator, owned by the rider, or rented to own at a discounted rate?
- ☐ **Select a serviceable bike:** Ensure replacement parts and repair/maintenance options are readily available at local bike shops.

For programs that incentivize third-party bike rental services:

- ☐ **Learn about the options:** Research third-party bike rental services to make sure the programs align with the city's goals and address local needs.

For programs that connect local businesses to third-party bike delivery companies:

- ☐ **Right-size the opportunity:** Collaborate with third-party bike delivery companies to understand what investments they may need (e.g., microhub infrastructure) and what areas and businesses are best suited for their business model.

Business permitting

Work with delivery partners and stakeholders to ensure practical logistics.

- ☐ **Establish a simple registration process:** Consider labels or permits for commercial bikes instead of formal licensing with the state.
- ☐ **Remove barriers to employment**: Bike delivery can provide economic opportunities for people without a driver's license. Support avenues to secure employment by carefully considering if driver's licensing requirements for delivery workers are absolutely necessary for your city's goals.
- ☐ **Prioritize rider safety:** Encourage or require companies, small businesses, and restaurants to invest in rider safety as part of a permit program. Ideally, delivery partners, including on-demand delivery services, should:
  - ☐ Offer frequent opportunities for bike training and education.
  - ☐ Provide workers with safety gear, such as lights, reflectors, and helmets.
- ☐ **Ensure bathroom access:** Collaborate with local businesses to provide delivery riders with access to bathrooms.

Outreach, education, and training

Collaborate with stakeholders to create a thorough education, training, and outreach program.

- ☐ **Identify training needs with stakeholders:** Work with a broad set of stakeholders (including delivery riders, logistics companies, relevant unions, businesses using bikes for deliveries, and local residents) to understand what topics should be covered and create collaborative learning spaces.
- ☐ **Work with local trainers**: Local bike training and education organizations can help design courses to educate workers on their rights, provide them with safety gear, and teach them to ride e-bikes on city streets.
- ☐ **Leverage private investments:** Larger employers may be best suited for implementing the logistics of a training program.

Further Reading

The following resources informed the writing of this paper in spring 2025.

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