



Microhubs Pilot

Brooklyn CB1 Off-Street Site

July 31, 2024



**Micro
hubs**

Agenda

1. Context
2. Microhub Pilot Overview
3. Potential Pilot Locations
4. Pilot Management and Monitoring
5. Status and Next Steps



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Context

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Consumer & Freight Trends

Increasing freight movement is driven by consumer demand.

- Over 80% of New Yorkers received a package at home in the last 7 days, 18% received packages on 4 or more days
- Pre-COVID-19, 60% of the deliveries were made to commercial customers and 40% to residential customers.
- Approximately 80% of deliveries are now going directly to residential customers
- Trucks conduct 90% of freight deliveries in NYC, leading to impacts on air quality, traffic, quality of life, and safety; disproportionately impacting environmental justice communities



DOT aims to improve infrastructure for the safe, equitable, efficient, and responsible movement of goods.

Local Distribution

Local distribution is consuming street, curb, and sidewalk space.



On-street sorting and transloading of deliveries impact the safety of the operators



Double parking and haphazard delivery staging in the parking lane impacts road users, and impedes mobility



Growing demand for deliveries increases truck circulation across neighborhoods, contributing to increased traffic congestion and concerns about poor air quality and safety

Microhubs are a critical part of the City's comprehensive freight strategy



The City is committed to encouraging greener and more efficient truck deliveries, increasing the share of goods moved by water, rail, and cargo bicycles while supporting innovative practices.

- **Delivering Green:** Lays out five bold steps the City will take to fundamentally restructure freight distribution and create a sustainable system for getting goods where they need to go.
- **Delivering New York:** DOT's blueprint to advance our vision of a safe, sustainable, equitable, and efficient "last-mile" freight delivery system.
- **NYC Streets Plan:** DOT's five-year transportation plan outlines steps to improve the safety, accessibility, and quality of the City's streets for all New Yorkers, prioritizing areas that need the most investment.



Local Law 166 (2021)

Bill to support micro-distribution centers (microhubs) for distributing goods via sustainable modes

- The bill required the Department of Transportation (DOT) **to issue a request for expressions of interest (RFEI)** from entities interested in facilitating, operating, or using micro-distribution centers and to seek feedback on potential challenges and opportunities.
- This legislation became effective on December 24, 2021, and required NYC DOT to **publish a report on findings** and **establish a pilot program** (“Pilot”) to support micro-distribution centers within the boroughs of New York City.
 - [Microhub Pilot Recommendations](#) (2023)
 - DOT is phasing the implementation of the pilot program, with up to 20 local delivery hub sites to test both curbside and off-street hubs.

Commercial Cargo Bike Rules

- In March 2024, DOT advanced rules to allow larger pedal assist commercial cargo bicycles in NYC
- The new standards will provide additional structure and guidance and serves as a foundational element for the success of microhub operations

NYC DOT Authorizes the Use of E-Cargo Bikes on City Streets and Establishes Key Safety Standards

New rules allow pedal-assist e-cargo bicycles to operate on-street to make deliveries safer and more sustainable

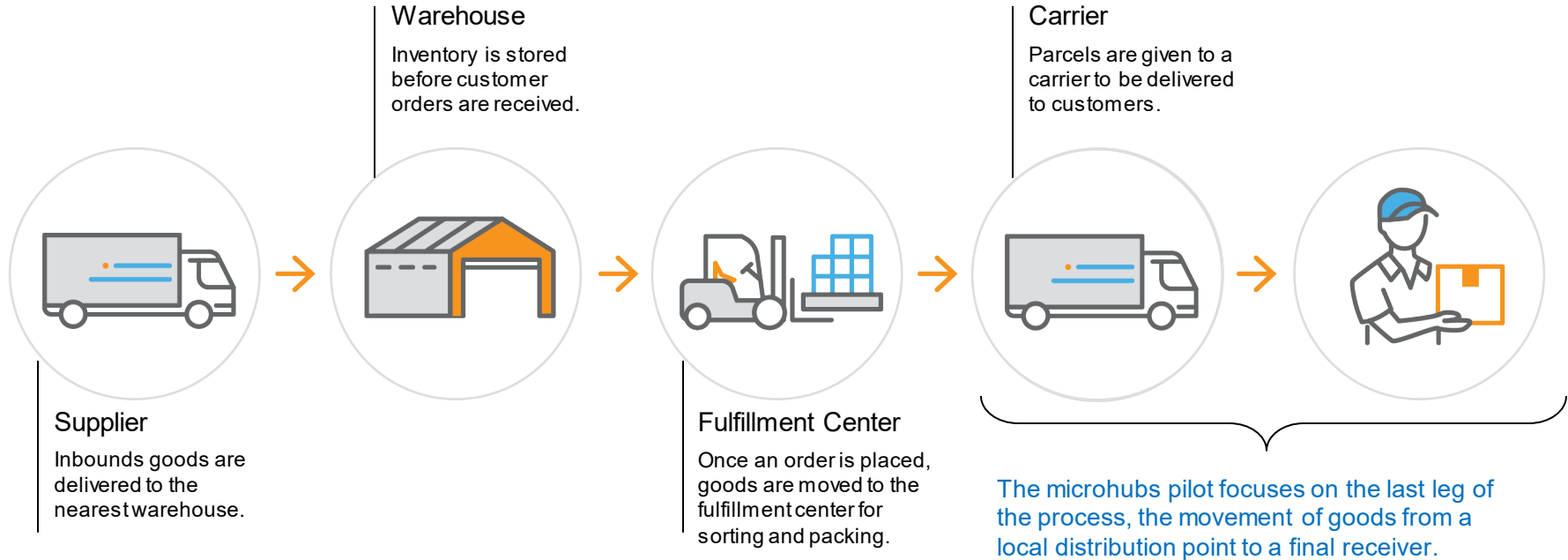


Image of NYC DOT pedal-assist e-cargo bicycle, "Cargi B"

Microhub Pilot Overview

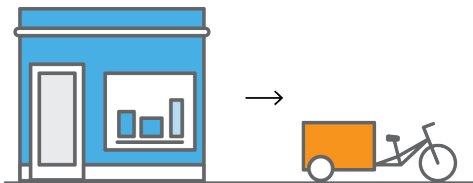
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Typical Logistics Process

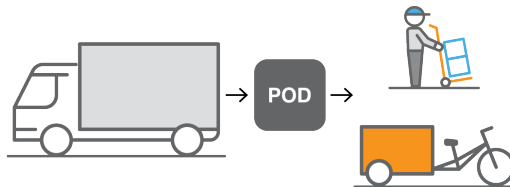


Microhub Defined

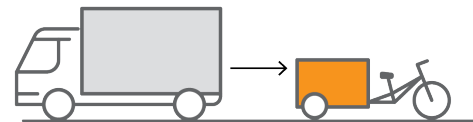
For this pilot NYC DOT is defining a **microhub** as a space located within the public or private right-of-way where goods are transloaded from larger freight vehicles to smaller, low-emission and electric vehicles, or human-powered modes (e.g., cargo cycles, hand carts) for final delivery.



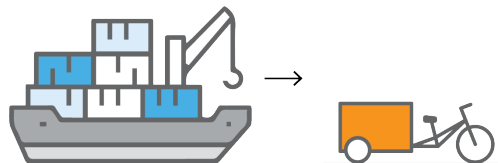
On-demand delivery/retail distribution



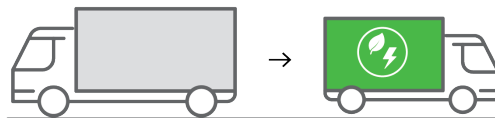
Truck-to-pod-to-cargo bike/handcart



Truck-to-bike/trailer



Barge-to-cargo bike



Box truck-to-EV van/sprinter van



Curbside box truck-to-handcart

Pilot Goals

The adoption of microhubs will support:



Greater adoption of sustainable delivery strategies by volume of deliveries switched to decarbonized modes.



Public safety improvements through the reduction in the roadway (i.e., double parking) and sidewalk obstructions.



Operational efficiencies and cost savings such as reduced congestion delays, toll costs, and fuel costs.



Air quality and noise level improvements from replaced truck trips, reduced truck traffic volumes in congested areas, and reduced truck idle times.



Increased delivery worker **safety**.



Increased programming and amenities promoting desired activity in underused public spaces.

Pilot Framework and Phasing



NYC DOT will launch a phased 3-year pilot to test what makes a successful microhub for NYC. During the two phases, NYC DOT will:

- **Study key elements:** siting criteria, utilization, enforceability, safety/infrastructure, signage/markings
- **Engage stakeholders** to refine pilot locations and design, support more equitable outcomes, expand participation and sites, and help shift toward safer and more sustainable practices

Phase 1 Summer/ Fall 2024

- **Start with a format that is easier to implement and enforce**

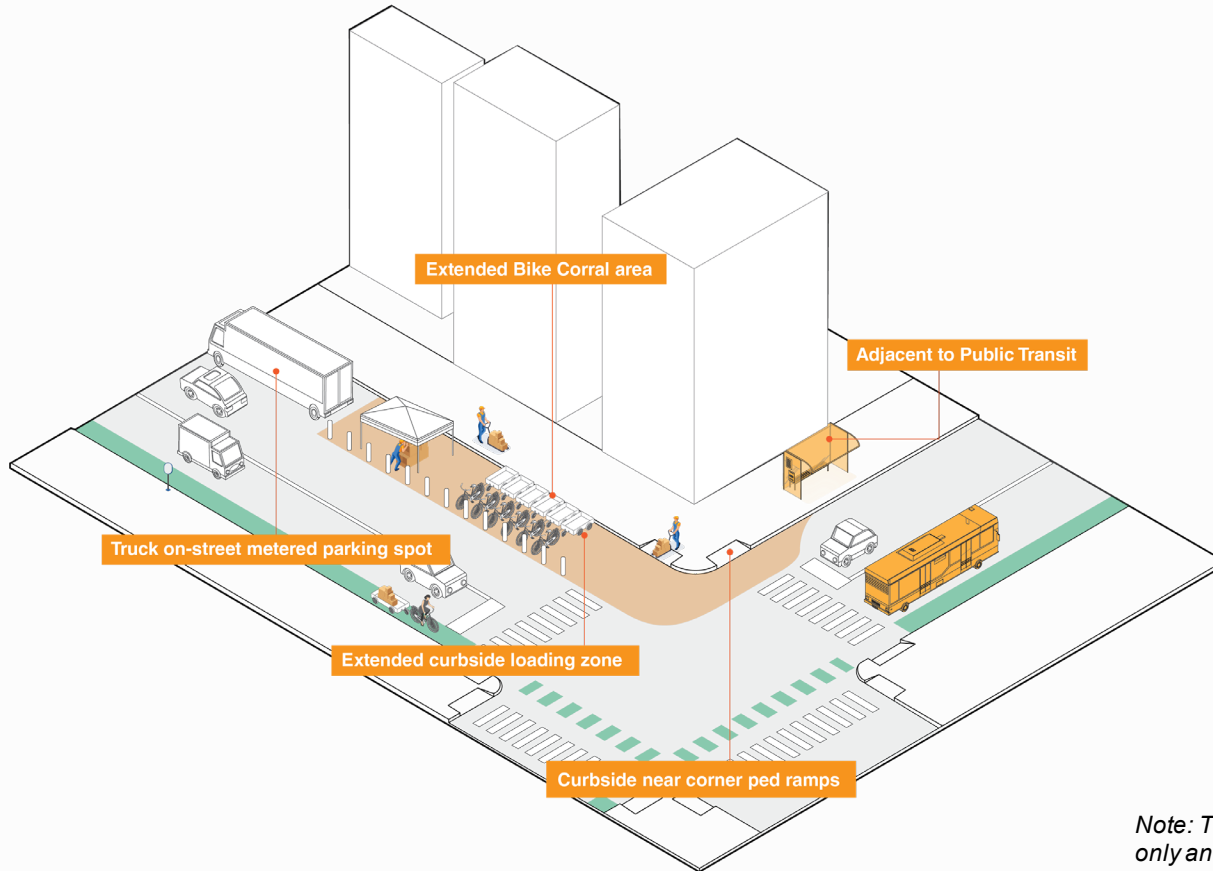
- Aim for 20 pilot microhub sites located throughout NYC
- Advance rules for curbside microhubs
- Begin pilot by drawing 8 participants from the RFEI respondents (includes range of small and large delivery companies)
- Test on-street (curbside) and off-street (under elevated structures) hubs

Phase 2 Summer/ Fall 2025

- **Expand geographic and partner reach**

- Consider additional microhub amenities and programming opportunities
- **Strategize options** for regulatory changes, incentives and enhanced enforcement
 - Assess technologies to support space sharing, monitoring, and compliance
- **Gather lessons** from pilot to develop a permanent program

Basic Characteristics of On-Street Hub

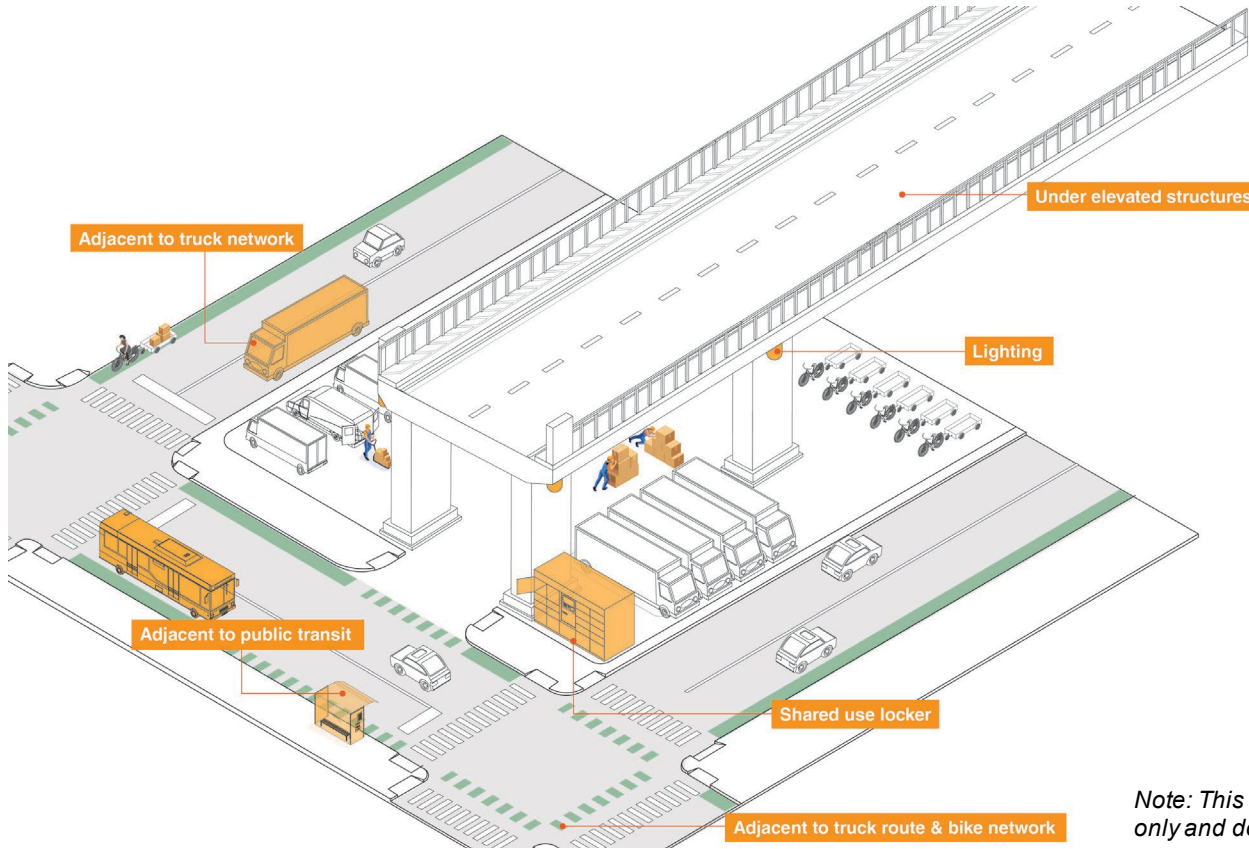


On-Street Hub Features:

- 80-100 feet in length
- Regulatory signage and/or other markings designating it as a microhub
- Transloading space for package sorting and transfer to electric vehicles, bikes, and walkers
- (Cargo) bike corral
- Upgraded safety barriers (flexible delineators, bollards, armadillos, planters, etc.)

Note: This conceptual image is included for illustrative purposes only and does not reflect the final design of the microhub.

Basic Characteristics of Off-Street Hub



Off-Street Hub Features:

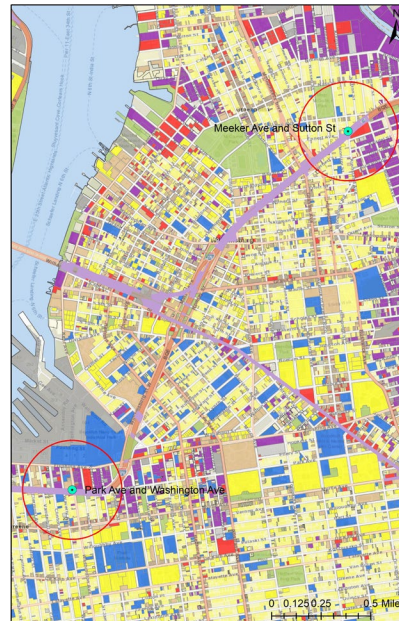
- Variation in size based on site location
- Vehicle and goods storage
- Vehicle repair, maintenance, charging
- Transloading space for package sorting and transfer to electric vehicles, bikes, and walkers
- Weather protection and lighting
- Opportunities for additional amenities and programming

Note: This conceptual image is included for illustrative purposes only and does not reflect the final design of the microhub.

Microhub Placement Criteria

Pilot sites assessed for the following factors:

- High-density mixed land use (commercial/manufacturing uses near residential areas)
- Close proximity to truck route, transit, and bike lane networks
- Serving Priority Investment Areas per Streets Plan
- Delivery demand/desired neighborhoods as provided by private partners



Geographic analysis of potential locations in GIS

Potential Pilot Location

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Off-Street Microhub: Greenpoint/E. Williamsburg



- Under the BQE on Meeker Ave b/w Sutton and Kingsland
- Currently low-demand metered parking
- Could fit 2-4 microhub operators with an estimated 8-16 truck trips per day



Anticipated Site Operations



- **Maintenance and infrastructure:** Operators will be required to maintain the space and may add short-term elements such as bike/goods storage, rest areas, and temporary restrooms for employees.
 - If pilot is successful, DOT will work with operators to consider further investments to the space (lighting, restrooms, public amenities, shared-use lockers, adjacent ped/bike improvements, etc.)
- **Truck Trips:** each operator may generate an average of 4 truck trips per day and replace vehicles previously accessing the space to park
- **Cargo Bike Trips:** cargo bikes will be used in many cases to replace truck trips for final delivery, and may visit the hub several times per day to complete deliveries within the microhub zone

Pilot Management and Monitoring

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DOT's Role



- Vetting and managing pilot participants
- Coordinating the identification and screening of pilot locations
- Developing terms and conditions for participation (details on next slide)
- Providing guidelines for design and circulation
- Collecting and analyzing data monthly to track participant activity
- Monitoring benefits/impacts of pilot based on data collected

Key Conditions for Participation



- **Sustainable Mode:** Transfer goods from a commercial vehicle to low-emission or electric commercial vehicles, bicycles, handcarts in the designated microhub zone
- **Sustainable Delivery Radius:** Only deliver goods by a sustainable mode of transportation to final points of delivery located within the delivery radius around the microhub zone
- **Transloading Restriction:** The permit holder must not conduct transloading activity within $\frac{1}{2}$ mile of the microhub zone except at the designated microhub zone
- **Company Name:** Display permit holder's name prominently on each commercial vehicle, low-emission or electric commercial vehicle, bicycle, handcart utilizing a microhub zone
- **Maintenance:** Actively use and maintain the designated microhub zone
- **Data Sharing:** Share and regularly report on data requested by the DOT
- **Notice of Leave:** Provide the DOT with a thirty-day notice if a permit holder decides to discontinue operations at a designated microhub zone

* If the microhub partner breaks the terms of agreement, the City has the ability to revoke their license within 24 hours

Status and Next Steps

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Next Steps

- **Community Outreach:** following your feedback, DOT will notify any suggested local stakeholders/community groups, place flyers, and conduct intercept surveys
- **Short-term License Agreement:** selected private companies will sign a short-term license agreement and proceed with activating the site
- **Implementation Timeline:** Fall 2024

Questions? Thank You!



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