

# Play 2

## PHASE AND LAYER HUB AMENITIES

Mobility hubs are dynamic places. As you implement and begin operating mobility hubs, you must also nimbly address rapidly evolving mobility options, information, customer preferences, and community needs. Design your mobility hub with the idea that they can be added to or changed as you get a better understanding of how they are being used. Hubs should be continuously iterated to host the most useful, relevant and successful mobility amenities and connections available to the community. This play provides pathways and tools to implement hub improvements strategically and opportunistically over time.

## AN ITERATIVE PROCESS

Creating and building on mobility hubs requires thoughtful analysis, management, and evaluation. The first phase of developing your mobility hub is to **understand** mobility gaps and create a clear plan for access, amenities, public realm, customer experience, and information. You and your implementation partners must first understand the mobility needs of the community by gaining insights and perspectives from public engagement, community needs assessments, and field observations.

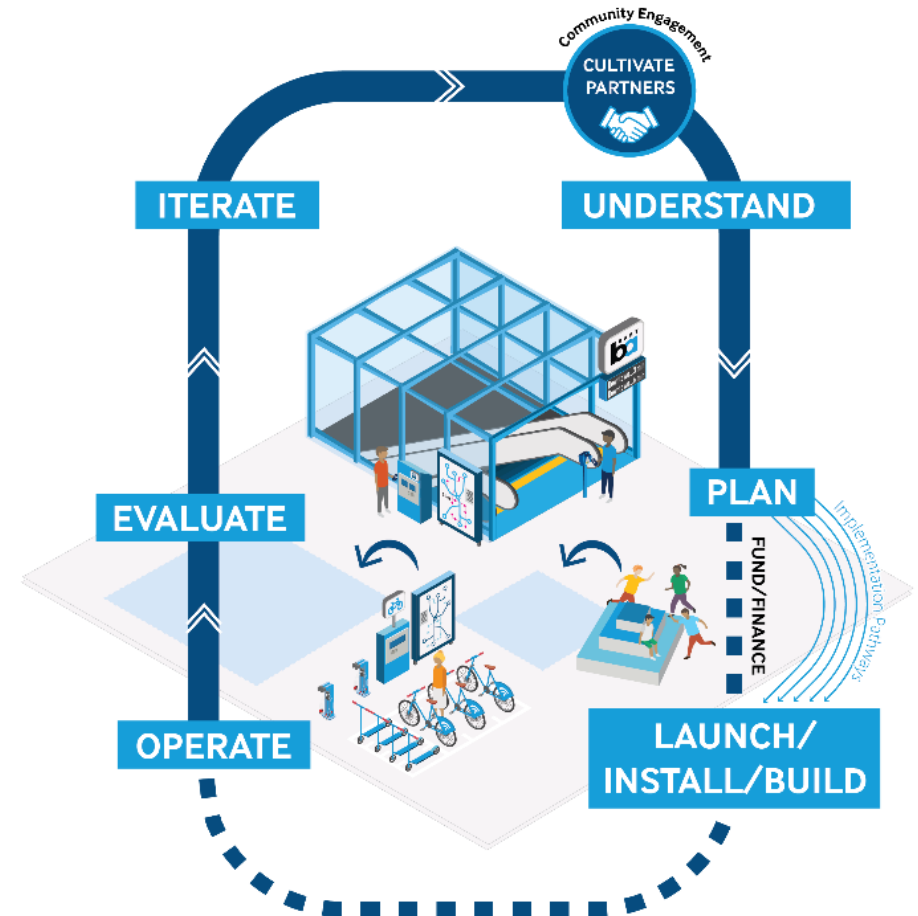
Once a **cohesive plan** has been developed, the next phase is to identify funding opportunities and the tools you might use to get to implementation. When your **implementation pathway** crystallizes, you can begin **launch planning, installation, and public messaging**. Mobility hub **operations** begins as the construction dust settles and amenities are ready for use. This includes space and vendor management, maintenance, and programming.

Begin evaluating your mobility hub's **performance and product fit** early and often. You should continuously evaluate mobility services, quality of connections, ridership, satisfaction, public life, and other indicators to determine if services, technologies, and information meet local needs and regional mobility objectives.

Finally, mobility hubs should be designed, both physically and contractually, for **agile iteration** of hub design, configuration, services, and programs to meet changing needs.

## PATHWAYS TO IMPLEMENTATION

Building out the community's vision for a mobility hub rarely happens all at once. Installing the full kit of parts takes time and often will be layered in as major projects, funding, partnerships, development, and other opportunities present themselves at different times. While MTC aims for consistency, mobility hubs can take many shapes, and vary in size, configuration, offerings, and lifespan. We understand that the incremental nature of mobility hub implementation can leave holes in the experience and lingering next steps that will be remedied over time. Therefore, five main pathways to implementation can be considered.



Successful mobility hubs require a thoughtful, phased approach.

## Pilot and Demonstrate

Starting small can help you test new hub features on temporary or semi-permanent basis. You can start now with short-term, easy to implement pilots or demonstrations. These might include new curb uses and regulations, temporary wayfinding and branding features, parklet spaces, pop-up retail, micromobility parking, and even staffed features like bike parking valets. Pilots and demonstrations can teach communities about the value of hubs and evaluate if the proposed solution(s) meets the community needs and solves mobility and connectivity issues identified in the understanding and planning processes. Pilots and demonstrations can also take advantage of land that is only available temporarily (e.g., pre-development sites), services that are still breaking into the market, and other exploratory elements to test the viability of a mobility hub and services prior to long-term development.



## Retrofit

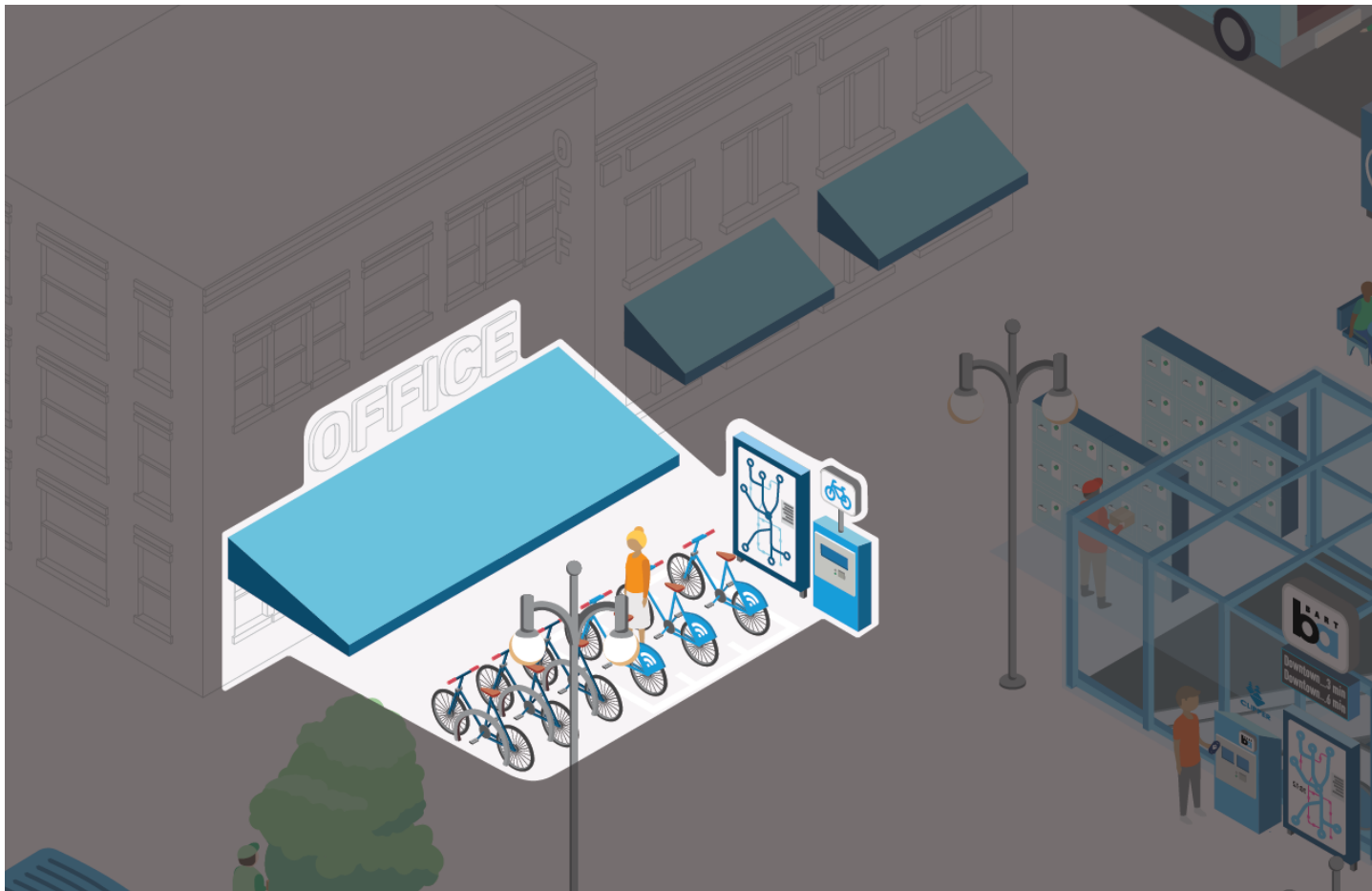
Mobility hubs are natural intersections of movement, place, and information, but putting it all together often requires layers of retrofits over time. You can program many incremental, major capital retrofits at existing stations and stops to include space for mobility and community solutions beyond transit and other anchor services. Retrofits are longer-lead implementations that you should program into capital plans years in advance or fund with major grant funding applications.



## Integrate into Development

New development is an ideal avenue for mobility hub creation and layering. Whether voluntary or required by code, you can identify missing hub amenities and generate the space and financing for implementation through development agreements. Integrating hub amenities into development gives you the opportunity to thoughtfully tailor hub features to that location.

Common features integrated into development include public realm improvements such as streetscape and landscape improvements, real-time information screens, shared mobility service pods, electric vehicle charging, and common carrier delivery lockers. You can also include community building functions rooted in equitable development and engagement frameworks.



## Insert and Wedge

As you develop initial implementation plans, be on the lookout for “leftover” parcels, underutilized slivers of land, and opportunities to reprioritize limited space. You can incrementally wedge in mobility hub elements into the nooks and crannies of a hub area. You can also insert new hub amenities or initiate new mobility services (e.g., shared micromobility and car share services) by reusing or reactivating spaces as they become available. In the case of dispersed hubs, you and your implementation partners should find peripheral spaces, one or two blocks from the central hub point, that can house additional hub features and better connect to other hub features through thoughtful site design and wayfinding.





## Full Build

The most comprehensive implementation pathways that you can take is a full build out of a mobility hub. Full builds rarely occur as a retrofit. These often come in the form of supplemental capital projects tied into a new transit station (e.g., Milpitas and Berryessa/North San Jose BART stations) or a major transit corridor program (e.g., Tempo bus rapid transit corridor in Oakland and San Leandro). Full builds also allow you and your implementation partners the freedom to design and manage a program that best meets the needs of the community all at once.



## IMPLEMENTATION TOOLKIT

You have a variety of implementation tools at your disposal that can be used to activate or repurpose land, to leverage public and private partnerships and new developments, to layer in planning and building requirements, and to secure funding. There are many ways for you and your implementation partners to implement mobility hub features. The following strategies can be mixed and matched to take advantage of short- and long-term opportunities.

### Direct Public Action

Cities, transit agencies and state agencies must make strategic choices to leverage existing assets to ensure that land is activated in a useful way. Properties owned by implementation partners can be managed to be supportive of hub elements and the overall transportation network.

#### Curb Reallocation and Management.

Cities can make the financial trade off to reduce paid or permitted parking to enable and manage other priority uses of the curb – particularly new loading, dedicated docking, and communal sitting, resting, and dining space. As stated in Play 1, a city's outcome-focused curb management and prioritization framework can directly benefit mobility hubs. Dynamic and flexible uses at the curb near transit portals is

foundational to allowing multiple mobility services to safely and orderly park, dock, load, and redeploy at hub curb locations.

**Right-of-Way Changes.** Cities can reprioritize street space to extend bike lanes and add transit-only lanes at the doorstep of mobility hubs. Critical gaps in the bike and transit network and new connections should be identified during planning and targeted for investment.

### City of Seattle, WA: Flex zone/curb use priorities

The City of Seattle was one of the first cities to recognize the various functions and flexible uses of the curb, and set up a system to prioritize curb functions based on land use. [The priority curb functions](#) allow the City to evaluate curb uses based on the surrounding environment and maximizes utilization of curb space – which is critical in areas where curb competition is greatest.

Seattle defined the functions as:

- Mobility: movement of people and goods
- Access for people: areas for people to arrive, depart, and transfer
- Access for commerce: good and services reach customers and markets
- Activation: vibrant social space
- Greening: Enhance aesthetics and environmental health
- Storage: Storage for vehicles or equipment

These curb use priorities can be augmented and tailored for curb spaces in and around your mobility hub areas.



Source: City of Seattle



**Permitting.** Municipal right-of-way or transit facility permitting processes can be used to provide dedicated space at or on hub property and even require support for mobility hub implementation. As new and existing space is permitted for new mobility uses and public space activation, mobility hubs could become their own type of permitted use, requiring that in-street (e.g., parking spaces) curb, or sidewalk spaces are used for hub uses and programmed activities in priority locations. Existing permit types – including shared mobility permits, parklets, street furniture permits, and EV charging installation permits – can be updated to include language supportive of mobility hubs.

**Procurement.** If you have the funding available, you can procure specific capital investments or even select services and operators. Provider, property manager, and lease procurement processes could all be written to include language related to mobility hub implementation for specific sites including management of infrastructure to support multimodal options or agreement on allowable uses in the space.

The diagonal parking stalls at the Westlake Mobility Hub entrances in Seattle were repurposed to extend a gap in the protected bike lane network and create a new public space, managed by the Downtown Seattle Association. This is an example of designing, installing, and operating mobility hub spaces in partnership with local government, transit agencies, a downtown business improvement district, and other private employers.

Source: Downtown Seattle Association

## Partnerships

Mobility hubs can integrate citywide-permitted private mobility services or other partner mobility arrangements in a way that expressly hosts mobility services at a hub location. This can give community members access to new options and help people connect between public transit and other mobility options, providing choice, better customer experience, and a more resilient transportation system. Partnerships with private entities, including mobility service providers or community-based organizations, add value to mobility hub implementation by directly linking between the mobility hub anchor service and first-/last-mile services.

## Multi-Partner Public Demonstrations.

Demonstrations can be used to educate users on mobility options and evaluate potential solutions based on public feedback, pilot evaluation, operational criteria, and business indicators. Partnerships can be leveraged to engage community members as well as integrate services and hub features offered by mobility services and technology providers. Demonstrations also expand access to funding, implementation, and operating capacity.



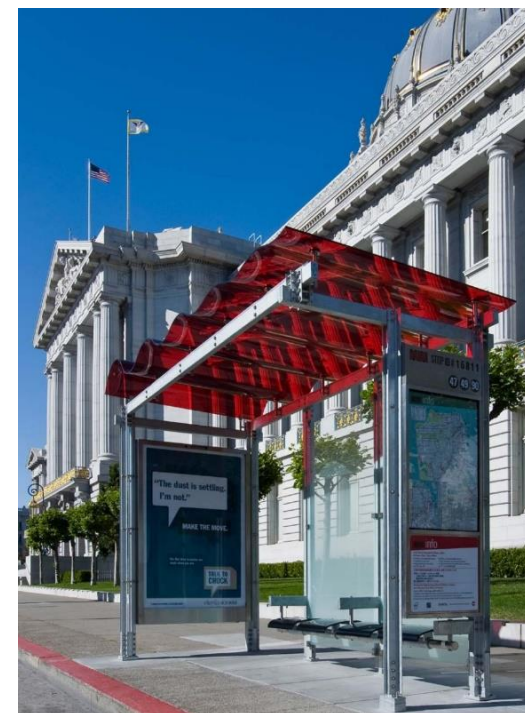
**Direct Private Investment and P3s.** Public-private partnerships (P3s) are joint ventures between public agencies and private enterprise and funded and operated through a consortium of government and one or more private sector companies. Mobility hub P3s are unique in that there is a clear public mobility and public interest lens, but the private partners provide some mix of public service, public infrastructure, or other benefit in exchange for some financial value. Value can be generated through direct contractual financial arrangement, land value uplift, access to consumers, and/or marketing or advertising opportunities. Depending on the P3 model employed, financial and operational risk can be dispersed across multiple partners. Public agency contributions into the P3 may include operating subsidies; capital investment; cost sharing; transit service; and in-kind services like maintenance support, permitting support, and property access.

While Play 7 enumerates some of the P3 funding opportunities for your mobility hub, the following are examples of P3 arrangements that can fully or partially develop your mobility hub network:

- Joint development opportunities can help capture and redistribute increased land value stemming from transit corridor investments.

- Advertising and sponsorship models from companies that buy and display media can outfit hubs with mobility and experiential amenities, as well as support public realm enhancements and ongoing operations.
- Local jurisdictions implementing mobility hubs can both incentivize development and investment in hub amenities and services by developing a menu of developer incentives, including density exchange or bonuses and reduced (or eliminated) parking requirements.
- Mobility hub property owned by public agencies can encourage direct investment in amenities, operations, etc. through space/ad lease.
- Partnerships can be valuable avenues to direct funding that may be less competitive or restrictive than grant or public funding sources.

**Programming Support.** Implementation efforts could identify and utilize business or community partners to develop and manage mobility hub programming (e.g. retail spaces, outdoor dining, cultural spaces). These arrangements could ensure programming is maintained and carefully curated for the specific community the mobility hub serves. Downtown or neighborhood business improvement districts (BIDs) are increasingly leveraged for this operational need.



SFMTA's transit shelter program is a partnership with Clear Channel.

Source: Lucid Management Group

**Mobility Challenges and Innovation Zones.**

You and your implementation partners can think even bigger to better connect market solutions with mobility and public interest objectives and mobility hubs. Partnerships can lead to innovation through program and product testing and evaluation. Recent examples of these investment and testing models include the Pittsburgh Mobility Collective and the City of Los Angeles' Transportation Technology Innovation Zone at the Warner Center, operated by Urban Movement Labs. In many cases, the lead public agency establishes an invitation to partner, the physical boundaries defining the area, the roles for community engagement, funding and in-kind services, and access to right-of-way to a portfolio of private partners. In exchange, the private partners contribute infrastructure investment, mobility services, and vital data that help public agencies evaluate technologies, services, and the partnerships themselves.

**Leveraging Tools**

Existing public processes, plans, and projects can be leveraged to incorporate mobility hubs or component hub parts. Understanding the landscape of the existing plans and projects and being prepared with area-specific mobility hub solutions can accelerate implementation. The mobility hub elements adopted by existing projects and plans are unlikely to have the benefit of being required by code or ordinance but can add additional benefits and return on

investment for developers and municipalities. The mobility hub features added through existing processes, plans and projects can act as a selling point to future tenants, the community or public agencies, by bringing added value and showcasing the projects' willingness to meet community need by going above and beyond requirements. The existing public outreach channels associated with planned projects can be used to evaluate the community's appetite for mobility solutions.

**New Housing/Commercial Developments.**

Often entirely new construction projects such as new housing and commercial developments, have extensive code requirements, and planning commission review processes can impact several aspects of the project's final design. Mobility hubs can be positioned to be included in the project plans as solutions to requirements related to single-occupancy trip caps, sustainability and more. Additionally, some private developers may understand the value in mobility hubs and be open to adding elements to the project without being required to do so. Lastly, mobility hubs may be able to assist with vehicle miles traveled mitigation that may be

required for transportation impacts under CEQA (in compliance with Senate Bill 743 (Steinberg)). See more information in the *Regional and Statewide Sustainability Initiatives* section.

The City of Pittsburgh offers insights into innovative partnerships that can be used to collocate expanded mobility options and infrastructure at mobility hubs. The City developed an innovative initiative, the Pittsburgh Mobility Collective (PMC), to invite, encourage, and support private mobility providers to serve first- and last-mile connections to and from mobility hubs and major demand centers with the intention to reduce drive alone trips. Selected through a competitive procurement process, the PMC brings together micromobility services and charging station, microtransit, car share, integrated booking and payment, and data platforms to support public transit and Healthy Ride public bike share.

Source: City of Pittsburgh





### Ongoing Street Redesign

**Projects.** The cycle of ongoing street redesign or reconstruction projects makes them a great candidate for mobility hub amenity installation and maintenance. An existing project area can be studied and monitored to build in applicable mobility hub plans that can be incorporated over time. A city's Planning and Public Works departments could coordinate on redesign/construction plans to build in mobility hub amenities.

### Neighborhood, Specific and Master Plans.

Long-term plans present a unique opportunity to integrate mobility hubs into an area's lasting identity and design. Neighborhood, specific and master plans attempt to capture goals, philosophies and objectives related to all aspects of a community, often including sustainability, housing, transportation, economic development and more. Layering mobility hubs and solutions into a guiding document, as well as associated city policies and general plan amendments, can help ensure that as the plans come to fruition, mobility hubs are integrated and not left out of projects as they come online.

### Major Transit Corridor Capital Investments and Station Improvements.

As transportation continues to evolve so should transit thoroughfares and stations. Transit agencies and cities can spur network connectivity by implementing mobility hubs at select transit stations as they are redeveloped or improved. Mobility hubs proposed for transit investment or improvements should be designed to complement the existing transit system and landscape, as well as provide flexibility and resiliency for the future.



The Alameda County Transportation Commission is working with local stakeholders to leverage the newly completed Tempo BRT line to build in mobility hub elements at the new BRT stations.

## Requirements

Development requirements, ordinances, and code changes are critical strategies for implementing mobility hubs. These requirements can integrate mobility hubs into new projects or provide funding through development agreements. City coordination and engagement is critical to realize these tools.

**Hub Overlay Zoning and Private Development.** Zoning code changes are powerful tools to ensure mobility hub implementation. One approach to consider is to work with your city partners to adopt a code overlay – similar to transit village or transit area overlays intended to promote transit-oriented community development—that can be applied to new development and major retrofits within dispersed mobility hub areas. A mobility hub overlay would require a menu of mobility hub features in future or

retrofitted developments. An overlay zone is also a tool to encode curb, parking, and transportation demand management (TDM) priorities into the fabric of new development.

Mobility hubs are an extension of transit-oriented development (TOD). They impact elements of land use, housing and community development and can be instrumental in providing connections beyond the current transit system. Additionally, when mobility hub amenities are planned and designed in tandem with TOD, mobility offerings can be tailored to specifically support each community and transit stop.

**Environmental Impact Report (EIR) and Development Mitigation.** Mobility hub amenities can be required as a mitigation tactic to offset impacts of a project as condition of an EIR or EIS. You can also create a specific mobility hub mitigation requirement through either direct action, including adding a mobility hub to the planned project, or funding offsets where the developer can pay into a fund that is used for mobility hub creation elsewhere.

**Transportation Demand Management (TDM) Requirements.** If built to solve site-specific mobility challenges, mobility hubs can be a quintessential TDM tool. Mobility hub amenities and integrated mobility design can be a solution to manage demand for low occupancy, high carbon trips for both employers and multifamily housing. Hub amenities can be required both programmatically and physically through



The MacArthur Transit Village under construction near the BART station platform. Future transit villages can further integrate mobility hub design and amenity features using overlay zoning.

Source: Santiago Mejia



building or permit codes. Employer and residential TDM mobility hub requirements can be tied to new construction, based on estimated number of employees or residents, square footage, and access to non-drive alone travel options. TDM requirements could also be triggered by single occupancy travel rates or goals where mobility hubs would be used as one method for decreasing SOV trips. You should consider integrating mobility hub concepts into TDM requirements at Pulse Hubs or other hub types that have major employment and residential clusters near regionally significant mobility hubs.

**Regional and Statewide Sustainability Initiatives.** Mobility hub investments are applicable to Senate Bill 743 objectives to determine the significance of a project's transportation impacts to "promote the reduction of greenhouse gas emissions, develop multimodal transportation networks and a diversity of land issues" (as indicated in Section 21099).

Mobility hubs can help to achieve the objectives of Assembly Bill 32. The state law requires California to reduce GHG emissions 40 percent below 1990 levels by 2030. The California Air Resources Board (CARB) determined that the state will not achieve this GHG reduction target without significant changes in how communities and transportation systems are planned, funded, and built. Mobility hub implementation is system change work and can be central to realizing climate mitigation policy objectives.

## Consider Pilots

Cities and transit agencies need to think strategically about how to best identify and implement mobility hub implementation opportunities. Implementation does not have to be in the form of a brand new, fully built mobility hub. You and your partners could consider taking an incremental approach or start small. Mobility hubs will evolve overtime, so building the foundation and testing outcomes are important aspects of implementation that can be done in advance of a final infrastructure change.

As mobility hubs are adopted into plans and projects, you and your implementation partners can take an incremental approach to establishing a full mobility hub or network of hubs. Smaller projects can be used to adopt elements of mobility hubs, such as curb management or shared vehicle parking and build to a more robust system over time.

Pilot programs are a strategic approach that can be used to build support and gain land access for future, more permanent hub developments. MTC sees piloting as an important tool to leverage excitement and positive results from a demonstration toward more permanent applications. The temporary and tactical nature of pilot and demonstration installations can allow for quicker implementation than more permanent and robust mobility hubs and can take advantage of existing project construction or phasing, short-term or time-limited funds, and help fill smaller, more

niche community needs. You can develop pilot installations for a number of mobility hub amenities, including, but not limited to:

- Hub wayfinding
- Light-tough micromobility parking solutions
- Bike parking
- Pedestrian access improvements at the hub
- New passenger and commercial loading applications at the curb
- Expanded public spaces
- Public realm support features like seating, art, and vending
- Technology and sensor applications

The dynamic and customizable aspects of mobility hub programming and physical form allow for diverse implementation options enabling partners to make the best choices suited for each specific location or network. Awareness and preparedness of all potential pathways allow partners to take advantage as opportunities as they come online and build to a robust implementation methodology.

## City of Minneapolis, MN: Modular Mobility Hub Pilots

In 2019, Minneapolis piloted 12 mobility hubs in the public right-of-way across the city to introduce the concept to the public and to help inform a long-term approach to implementing a mobility hub network throughout the city. The goal of the Minneapolis mobility hub program is to increase access to convenient low or no carbon travel options, including transit, shared scooters and shared bikes. The City of Minneapolis conducted events at each mobility hub, where they captured public feedback through surveys. The City found that 64% of participants said they were more likely to use transportation options at the hub, and the top three most important elements needed to improve trips were access to more transportation options, feeling safe and places to sit and gather.

Mobility hub sites had consistent branding, signage, modular furniture and design elements.



The City of Minneapolis has found opportunities to create low-cost parking solutions for shared electric scooters. The concept of opportunistic siting and tactical piloting can be applied to any number of mobility hub elements.

Source: City of Minneapolis

