

# US 101/SR 92 Mobility Hub and Smart Corridor Toolkit

*City of San Mateo, SamTrans, and the San Mateo County Transportation Authority*

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# Toolkit Purpose



This Toolkit contains information on **typical amenities** and **services** included as part of mobility hubs and smart corridor projects.

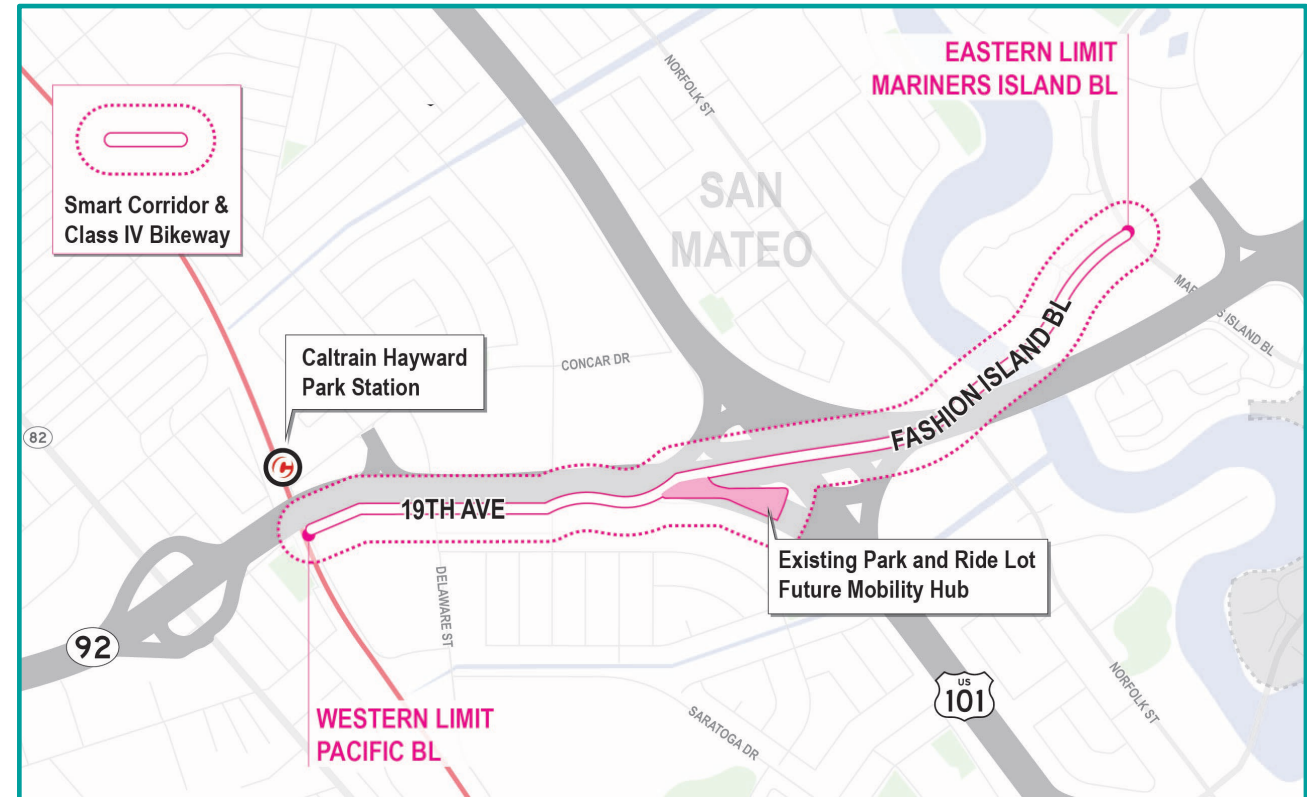
The Toolkit is intended to equip community members and stakeholders with the knowledge needed to help shape the development of the US 101/SR 92 Mobility Hub and Smart Corridor Concept Plan.

# Project Focus



The City of San Mateo, SamTrans, and the San Mateo County Transportation Authority are developing a plan for a Class IV separated bikeway and the conversion of the existing Caltrans Park & Ride into a Mobility Hub that offers access to a variety of sustainable transportation options.

The project will also include Smart Corridor features and access improvements for people walking at four intersections along the corridor.



Project Area

# Mobility Hub & Smart Corridor: A Unified System



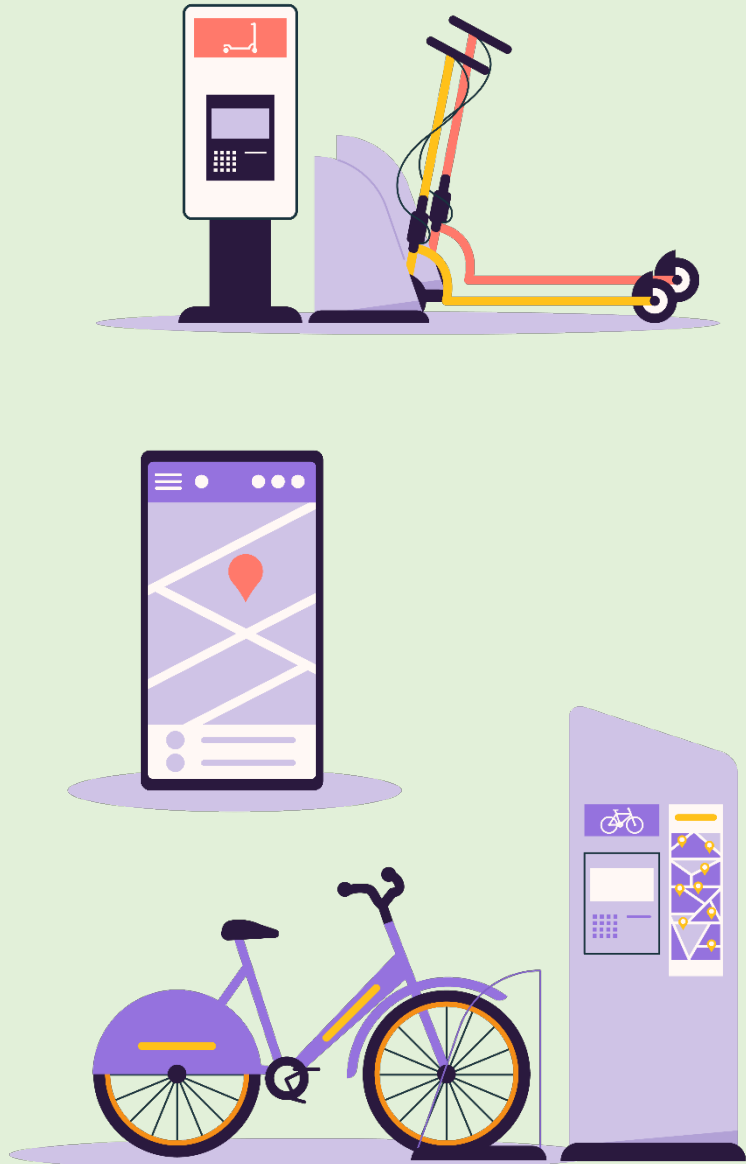
Anchored by the Mobility Hub, the Smart Corridor will connect Fashion Island Boulevard/19<sup>th</sup> Avenue corridor and the Caltrain Hayward Park Station. The corridor and hub will balance technology with equity and sustainability to create a system that serves the community now and in the future.



The **Mobility Hub** looks to upgrade the underutilized Caltrans Park & Ride located at the US 101 / SR 92 interchange into a centralized location for accessing shared transportation services and community gathering.



The **Smart Corridor** will enhance the travel experience along the City of San Mateo's 19<sup>th</sup> Avenue and Fashion Island Boulevard.



# Mobility Trends

## What may our Mobility Hub and Smart Corridor accommodate?

### 1 MORE CHOICES



In addition to biking, walking, driving, and taking transit, many people have **access to on-demand services such as private-for-hire rides** (like taxis, Uber, and Lyft), scooter share, bike share, carsharing, and micro-transit shuttles.

### 2 NEW PLAYERS



These on-demand services have increased the role of the **private sector in transportation and changed the ways that roads, curbs, and sidewalks are used.**

### 3 BEHAVIOR CHANGE



**Trip-planning services** are changing the way people make decisions about routes, mode, and cost to travel.

### 4 ELECTRIFICATION



Global trends toward electrification of vehicles, combined with locally-adopted goals for reduced greenhouse gas emissions, has **increased demand for electric charging options** as part of public infrastructure.

### 5 E-COMMERCE



**E-commerce is reducing personal trips** to retail stores and restaurants and exponentially **increasing the volume of urban delivery and courier trips** occurring.

### 6 CURB SPACE DEMAND

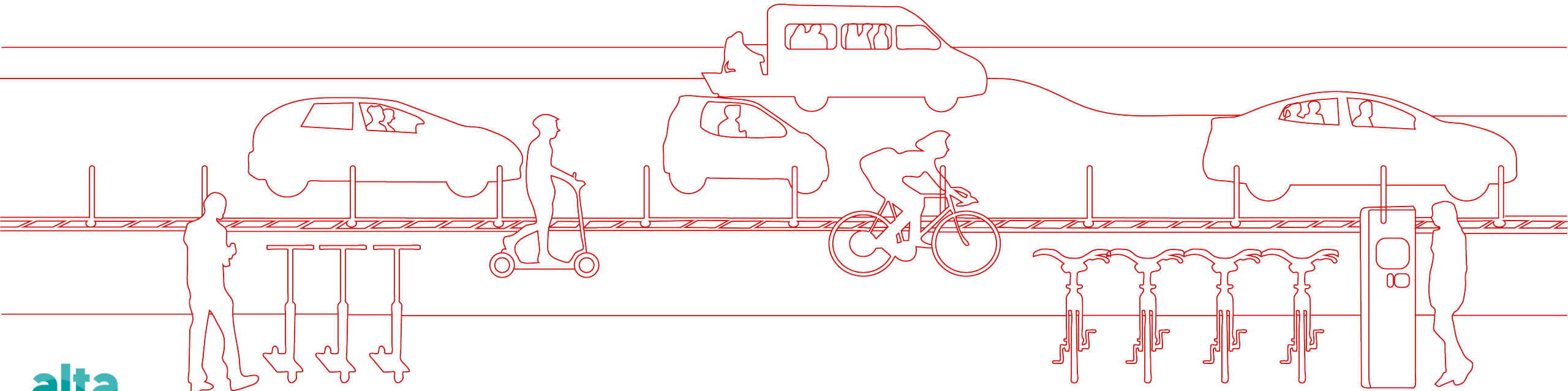


There is **increasing demand for curb space** for elements like transit services, rideshare pick-up and drop off, pedestrian paths, and freight delivery.

# Goals



- Expand transportation options along the corridor
- Increase access to safe, high-quality transit
- Reduce emissions and enhance public health
- Improve conditions for all non-motorized forms of transportation (e.g. walking, biking, scooting, etc.)



# Benefits



## Active Transportation

- Provide safe, convenient, and universally accessible infrastructure
- Eliminate gaps in the local and countywide bicycle network
- Improve transportation access to local destinations like schools, offices, retail and civic areas
- Encourage multimodal trips by making roads safer for all modes of travel

## Transit

- Support affordable and equitable long-distance transit options
- Improve underserved communities' access to transit and other shared transportation services
- Promote the use of public transportation through increased safety and more convenient connections between modes of transportation
- Reduce greenhouse gases (GHG) and improve air quality

# Mobility Hub

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# What is a Mobility Hub?



Mobility hubs provide an integrated suite of mobility services, amenities, and technologies to enable seamless multimodal trips.

## Community and User Benefits:

- Access to two or more transportation services
- Biking and walking access to the site
- A sense of place and human-centered design
- Locally-relevant and context sensitive programming and amenities
- Fair and equitable access, including universal design
- Flexibility to adapt to evolving needs



# Elements of the Mobility Hub

The US 101/SR 92 Mobility Hub would consist of stops and shelters for existing and future planned SamTrans' bus services, as well as other potential transportation services.

## TRANSIT AND TRIP-MAKING SERVICES



Passenger pick-up and drop-off areas for ridehailing, microtransit, etc



Transit ticket and integrated payment kiosks



Bus, shuttle, or light rail stop



Real time transit information & other shared mode information



Freight loading/unloading area

## PARKING AND CHARGING SERVICES



Electric vehicle charging (including bicycles & scooters)



Short term bike parking



Long term bike parking



Bikeshare & scootershare parking



Carshare parking and access points

## PRIORITY ACCESS



Prioritized walkways



Prioritized bike and micromobility access



Safe bicycle and pedestrian crossings



Community space



Complementary retail



Activated furnishing zone with appropriate support infrastructure

# Hub Typology



Mobility hubs can scale to meet the community context and transportation services currently available or planned for each site.

## Minor

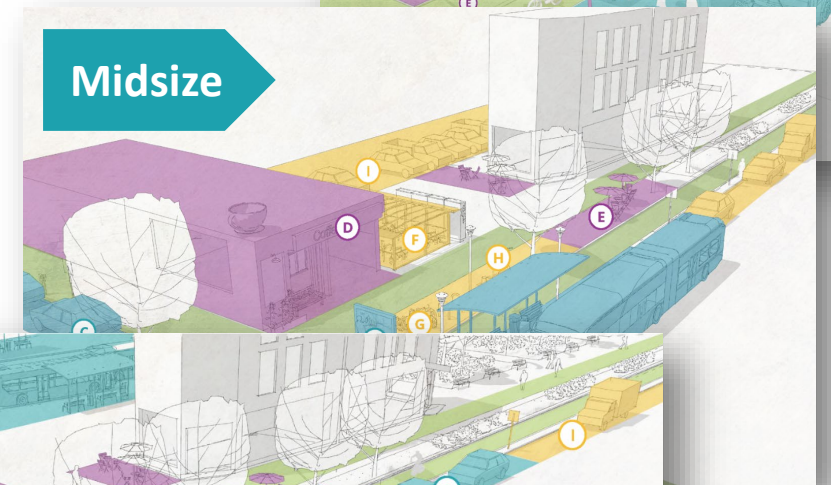
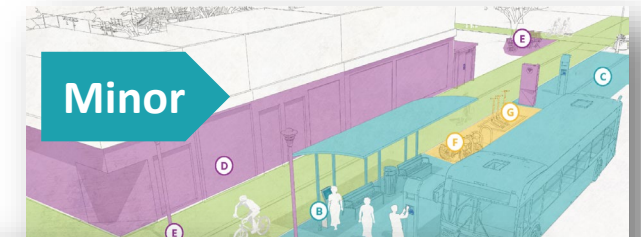
- Upgraded neighborhood bus stops

## Midsized

- Destinations along major arterial roads

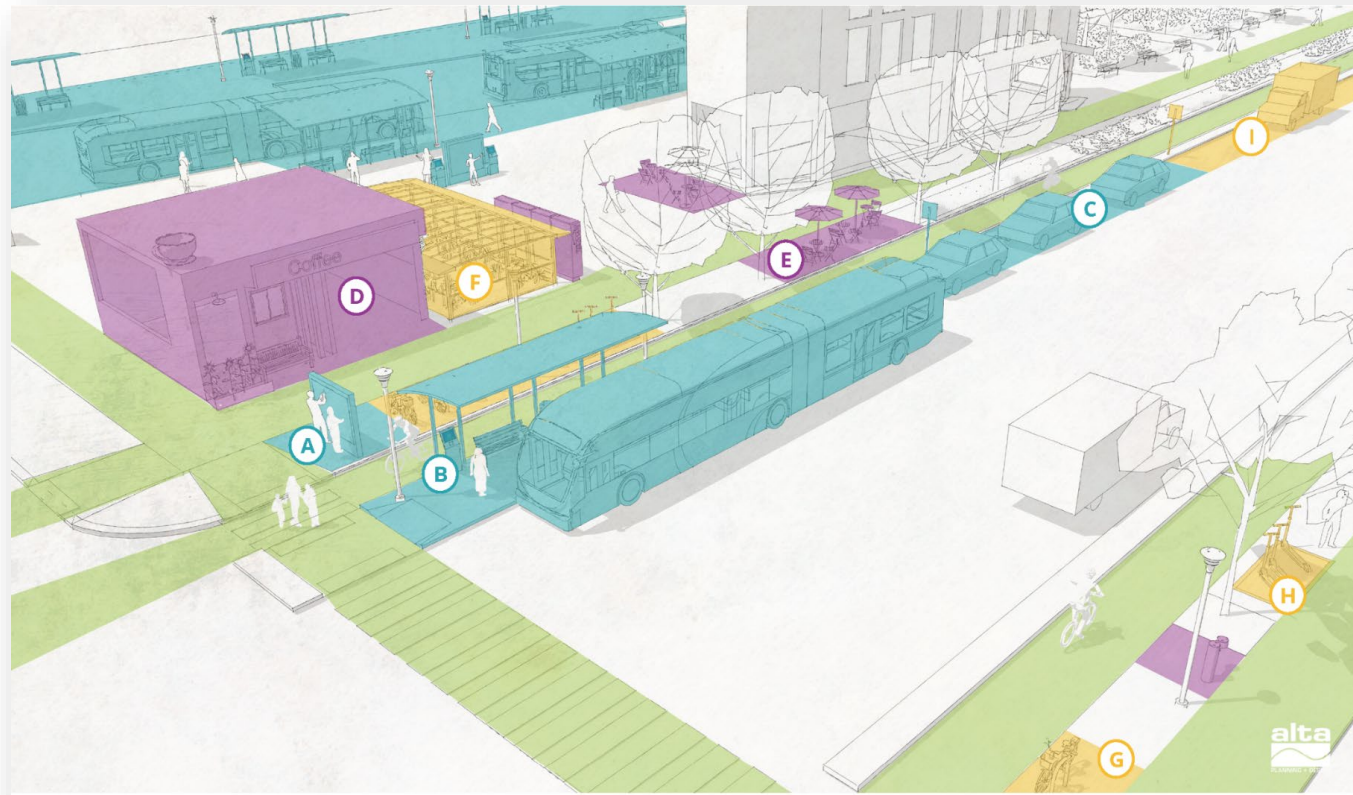
## Major

- Park & Rides
- Underutilized commercial parking lots



# Major Hub

Based on the characteristics of the Caltrans Park & Ride site, a Major Hub type is being considered.



## POTENTIAL DESIGN FEATURES

### Transit and Trip Making Services

- A** Trip planning information that is accessible to all and ticket kiosks to facilitate pre-boarding payment
- B** Multiple accessible bus boarding areas
- C** Passenger pick-up and drop-off

### Amenities

- D** Retail space for businesses that support trip-chaining, such as bike shops, grocery/convenience stores, or coffee shops
  - Showers and lockers for bicyclists integrated into infill development
  - Wifi hub, phone docking stations, and public restrooms

- E** Features that enhance sense of place

### Parking and Charging Services

- F** Expanded long-term bicycle storage facilities
- G** Short term bike parking
- H** Designated micromobility parking and charging
- I** Vehicle parking
  - Carshare, carpool, guaranteed ride home
  - Electric vehicle charging stations

### Priority Access

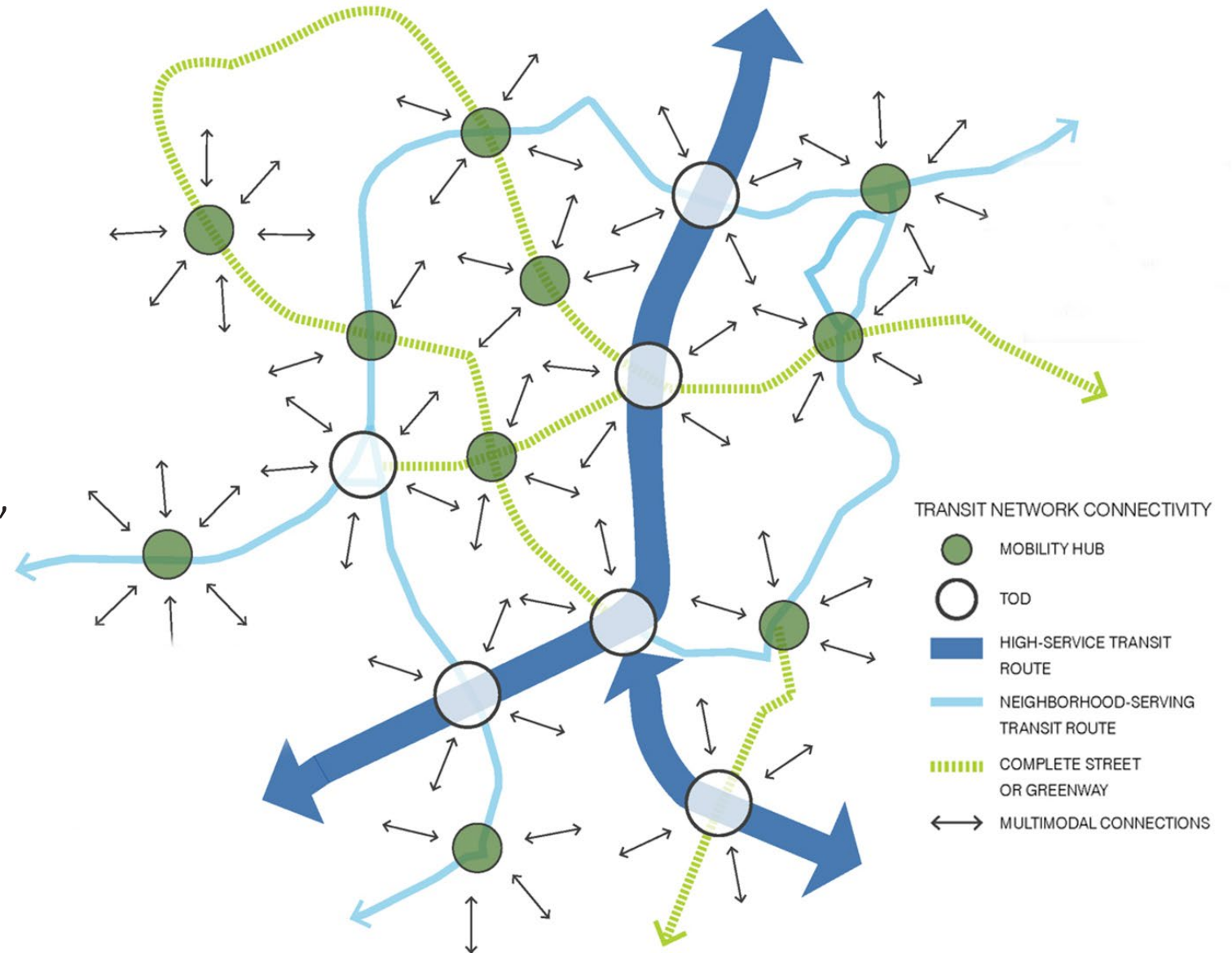
- Comfortable and continuous walkways
- Comfortable and continuous bikeways
- Safe and frequent road crossings for people walking and biking

# Creating a Hub Network



The proposed Hub could lay the foundation for a potential network of mobility hubs across San Mateo County associated through a unified brand.

This brand could include signage, architectural features, and/or a unique building design.



# Smart Corridor

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# What is a Smart Corridor?



The Smart Corridor will offer a transportation link that embeds emerging technologies in a smart, equitable, and resilient manner along 19<sup>th</sup> Avenue and Fashion Island Boulevard.



## Why Build a Smart Corridor?

Smart Corridors provide more mobility with low-cost infrastructure through shared modes, creative management of space, and policies to incorporate technology to support residents and businesses.

# Smart Corridor User Experience



*Pedestrians*



*Transit*



*Micromobility*  
*(Pedal Bikes, e-Bikes and Scooters)*



*Drivers*



*Vulnerable Users*

The Smart Corridor will transform the mobility experience for all types of travelers, making transportation safer, healthier, more efficient, and more comfortable between the Caltrain Hayward Park Station and Fashion Island Blvd/ 19<sup>th</sup> Avenue.



# Smart Corridor Features



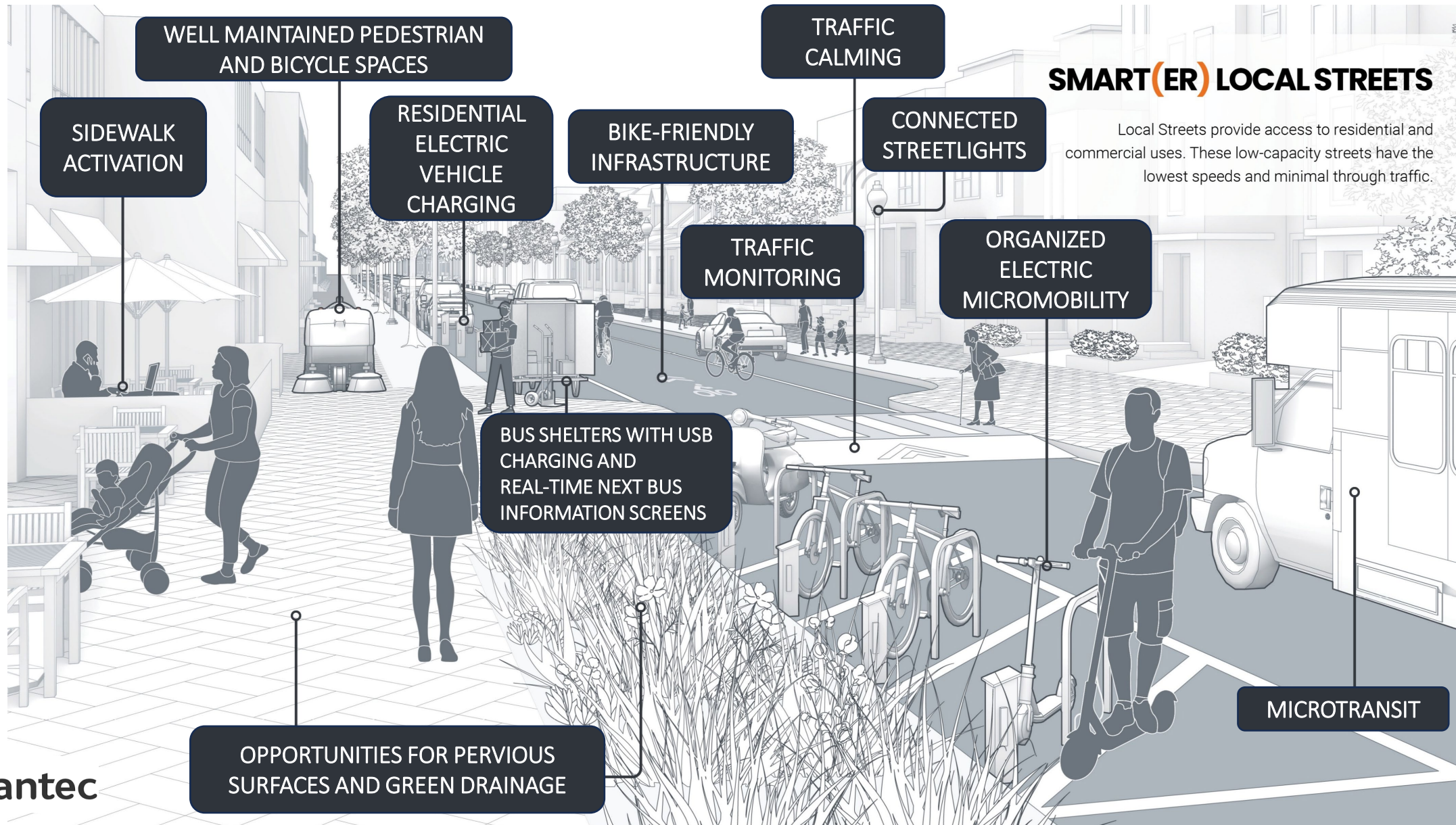
## Core Features

- Separated and protected bikeway (Class IV)
- Bus shelters with real-time next bus arrival screens and USB charging ports
- Public benches with USB charging
- Trash cans with smart sensors to detect capacity
- Public wi-fi
- Connected streetlights that adjust to ambient light and weather conditions
- Traffic and air quality monitoring

## Optional Features

- Micromobility (bicycle and scooter) parking areas
- Wayfinding – digital and physical
- Sidewalk activations
- Landscaping, including green drainage
- Traffic calming
- EV charging stations
- Delivery zones
- Microtransit
- Mobile applications for multimodal trip planning and fare payment, including Clipper integration

# Smart Corridor Features



# Examples from Other Regions

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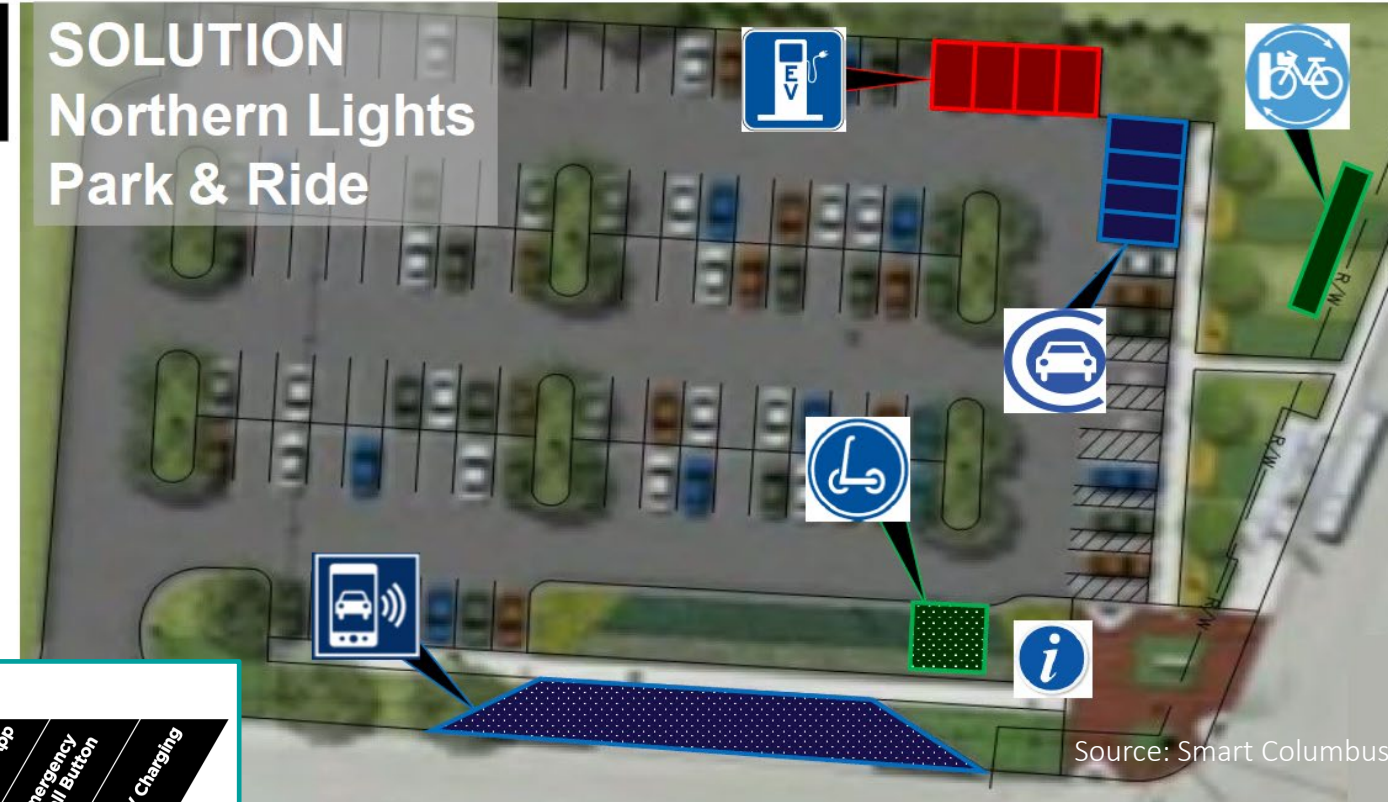
# Columbus “Smart Mobility Hubs”



In 2020, the City of Columbus launched a network of permanent mobility hubs, consisting of six destinations throughout Central Ohio. The hubs leverage technology, with the goal of expanding mobility options along a corridor that parallels a freeway similar to US-101.



## SOLUTION Northern Lights Park & Ride



Source: Smart Columbus

### SMART MOBILITY HUB - AMENITIES BY LOCATION

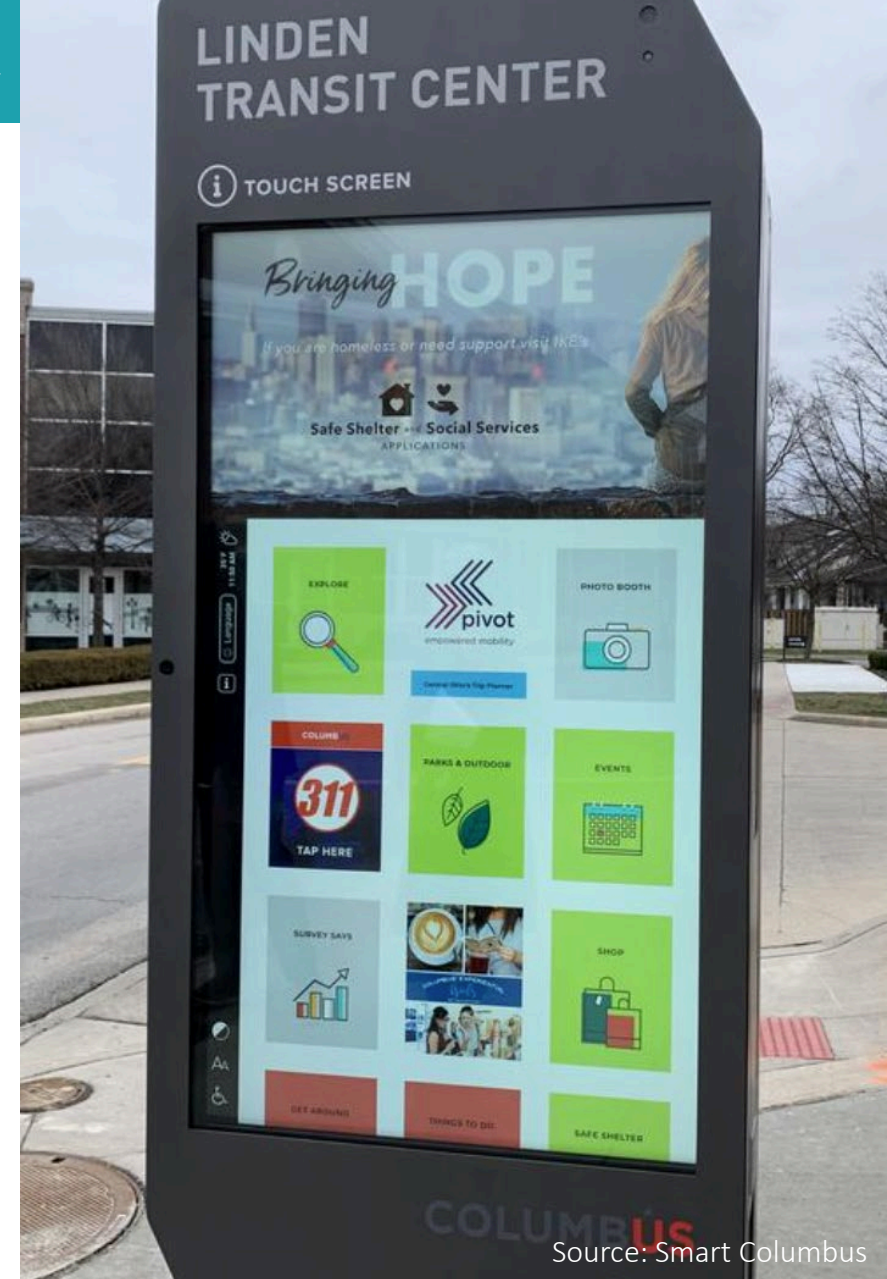
| Location                         | Interactive Kiosk | Wi-Fi | Park & Ride | Pickup/Drop Off Zones | Car-Share | Bike-Share | Bike Racks | Dockless Parking | Pivot - Trip Planning App | Emergency Call Button | EV Charging |
|----------------------------------|-------------------|-------|-------------|-----------------------|-----------|------------|------------|------------------|---------------------------|-----------------------|-------------|
| Columbus State Community College | ●                 | ●     |             |                       | ●         | ●          | ●          | ●                | ●                         | ●                     |             |
| Linden Transit Center            | ●                 | ●     |             | ●                     |           | ●          | ●          | ●                | ●                         | ●                     |             |
| Metro Library - Linden Branch    | ●                 | ●     |             | ●                     | ●         | ●          | ●          | ●                | ●                         | ●                     |             |
| Northern Lights Park & Ride      | ●                 | ●     | ●           | ●                     | ●         |            | ●          | ●                | ●                         | ●                     | ●           |
| St. Stephen's Community House    | ●                 | ●     |             | ●                     | ●         | ●          | ●          | ●                | ●                         | ●                     |             |
| Easton Transit Center            | ●                 | ●     | ●           | ●                     |           | ●          | ●          |                  | ●                         | ●                     |             |

The project team developed a list of **AMENITIES**. Interactive kiosks and public wi-fi are available at all hubs, while other features were selected based on community feedback and available space at each site.

# Columbus “Smart Mobility Hubs”

INTERACTIVE KIOSK

DOCKLESS BIKE / SCOOTER CORRAL



# Minneapolis Mobility Hub Pilot Program

The City of Minneapolis launched a multi-site mobility hub pilot in 2019. Thirteen seasonal hubs were launched in 2019, with an additional 12 locations added in 2020.

## *Seating*

- Modular & movable
- Permanent & stationary

## *Greenery*

- Trees
- Flower boxes
- Gardens / landscaping



Bus Stop with On-Street Micromobility Parking



Modular Seating

# Minneapolis Mobility Hub Pilot Program



Source: Minneapolis Public Works

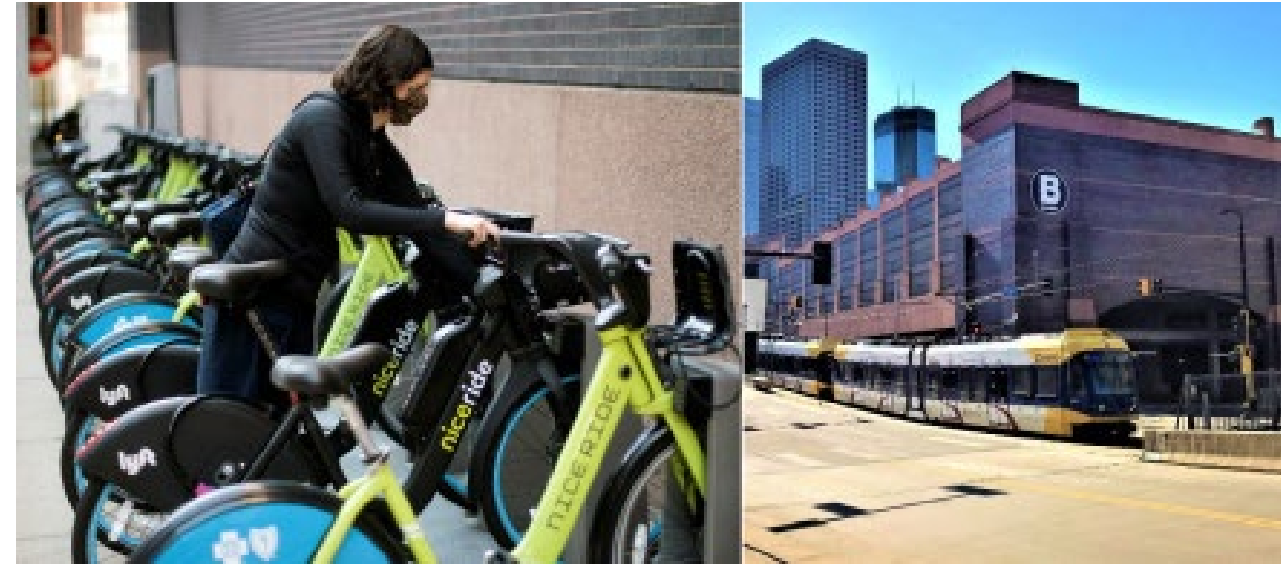
# Minneapolis: ABC Ramp Mobility Hubs



In 2019, the Minnesota Department of Transportation (MnDOT) redesignated Minneapolis' landmark parking garages "ABC Ramps" as mobility hubs to reflect the multi-modal transportation options available.

MnDOT and the **City of Minneapolis** added improved wayfinding, bicycle facilities, and programming to activate the space.

The ABC Ramps Mobility Hubs offer a model for upgrading the Caltrans Park & Ride lot into a mobility hub. The ABC Ramps team transformed the site design from primarily car parking into a centralized location for convenient transfers between shared transportation modes like transit and micromobility (bikes and scooters).



Source: Move Minneapolis

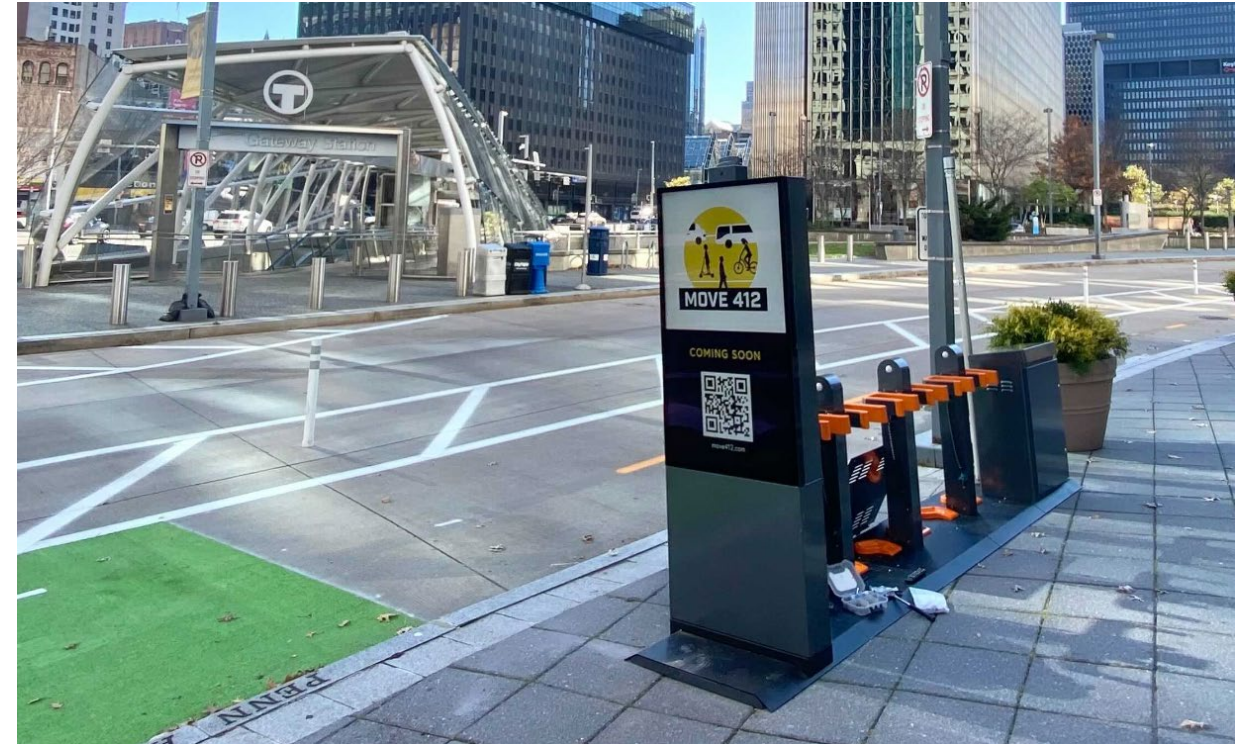


# Pittsburgh: Move PGH



The Pittsburgh Department of Mobility & Infrastructure (DOMI) launched the Move PGH program in 2020. Co-led with scooter company Spin, Move PGH integrates mobility services digitally through the mobile application Transit App and physically by micromobility hubs.

Anchored by Pittsburgh Regional Transit stops and scooter charging stations, these low-profile, low-investment hubs may be well suited for installation along the Smart Corridor and other street-adjacent locations throughout San Mateo County.



Source: Move PGH

**For more information:**

**[smcta.com/10192mhsc](https://smcta.com/10192mhsc)**

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