

A Comprehensive Guide to Construct a Mobility Hub

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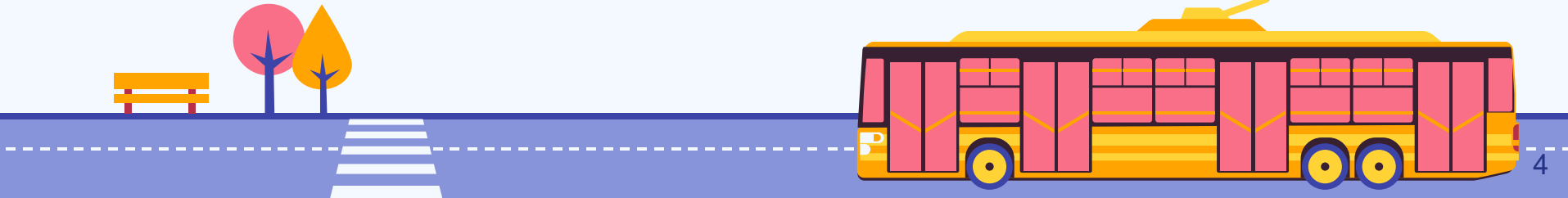
Overview

- 01 What is a Mobility Hub?
- 02 Clients
- 03 The Project
- 04 Recommendations



01

What is a Mobility Hub?



Mobility Hub



Source: CoMoUK

- A **mobility hub** is a centralized community space that connects multiple transportation options in one location.
- Integrates **public transit**, **bike/scooter share**, **car share**, **EV charging**, and **active transportation** .
- Encourages a **reduced reliance** on private vehicles and **supports sustainable travel** .



Benefits

Economic & Sustainability Benefits

- Improve first- and last-mile connections to major transit
- Reduce travel time, cost, congestion, and emissions
- Enable EV charging & renewable energy integration

Social & Community Benefits

- Strong architectural identity fosters local pride & attachment
- Green spaces improve user experience, comfort, and well-being
- Serve as community gathering spaces (leisure, recreation, tourism)



02

Clients



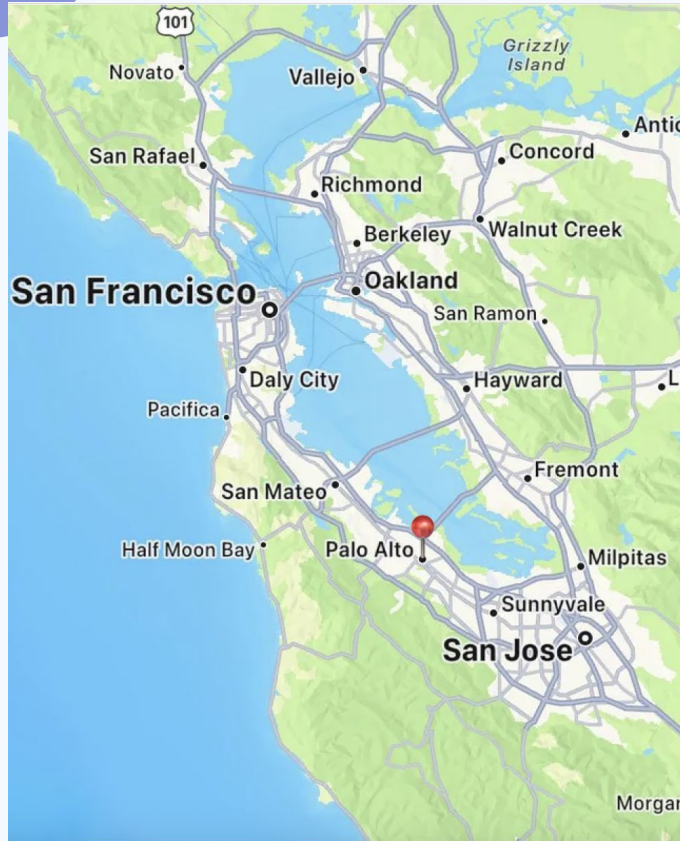
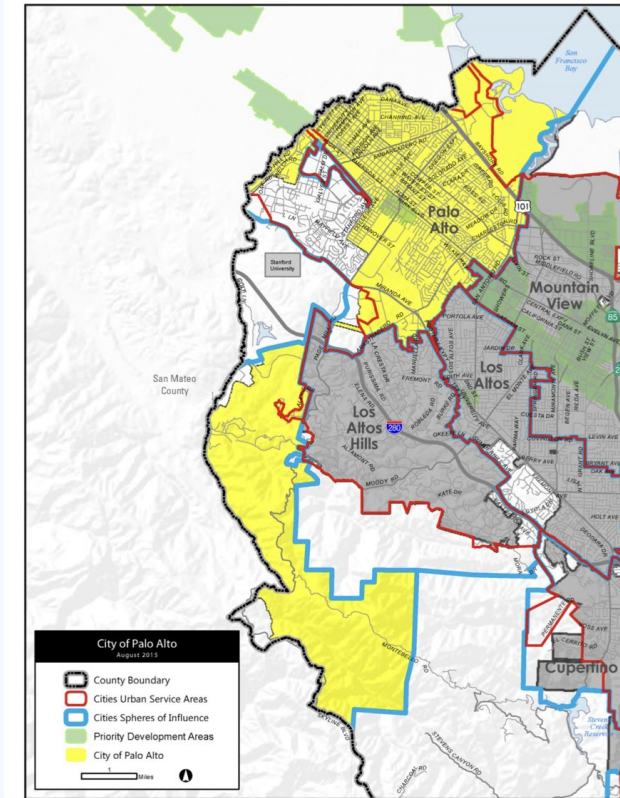


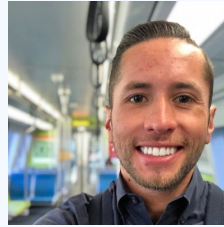
Figure 30. City of Palo Alto Existing Boundaries



Client: City of Palo Alto, CA



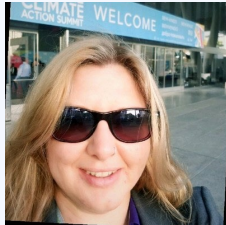
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Research Questions

How can the City of Palo Alto develop a sustainable and equitable mobility hub that increases multi-mode transportation access for residents of multi-family housing?

Sub-questions:

- What best practices and key components contribute to building a successful mobility hub?
- Considering Palo Alto's local context and priorities, which factors should the city adopt?
- What location would serve as an effective pilot site for the mobility hub?



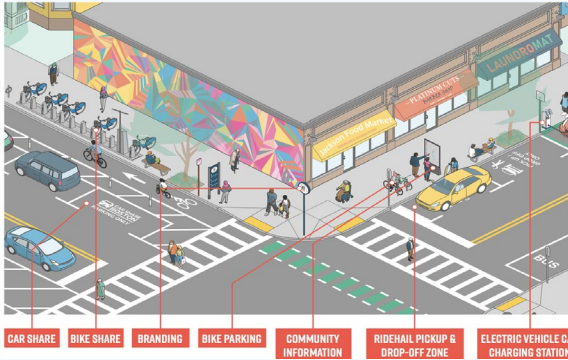
03

The Project



Mobility Hubs: Examples

Gohubs! in Boston

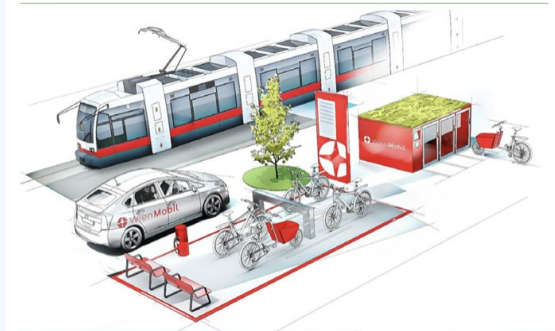


eHubs in England and Scotland



SmartHubs in Vienna, Austria

Figure 1. WeinMobil Station



Best Practices

U.S.

- Clear Purpose & Target User
- Strategic Site Selection
- Integrated Sustainable Modes
- Performance Monitoring



Pilot hub in Minneapolis

Europe

- Design for Safety, Lighting and Comfort
- High-Visibility Branding and Wayfinding
- Community Co-Design



Two Pilot locations in Amsterdam (Dekkers et al.)

Community Engagement

01

User Segmentation

Define primary mobility hub users and their needs

02

User Needs

Map priorities based by segments; Translate needs into core features

03

Competitive Landscape

Compare current substitutes to show hub advantages and disadvantages

04

Positioning & Outreach

Position the hub and use outreach messaging reflecting lived experiences and benefits

05

Stakeholder Collaboration

Map key partners and user groups early; Use co-creation tools and pilots

06

Feedback Mechanism

Build feedback across phases with onsite input; Combine metrics with qualitative checks



Metrics of Success



Mobility & Travel Behavior Outcomes

- Hub utilization, changes in mode share, transit boardings and transfer
- Shared mobility usage and first and last-mile connections



Environmental and Community Outcomes

- Estimated reductions in VMT and GHG emissions
- Changes in parking demand, safety outcomes and hub usability



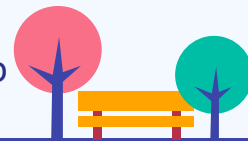
Accessibility Outcomes

- Improved access to jobs and daily destinations within 30 minutes
- Reduced travel time + easier access by transit



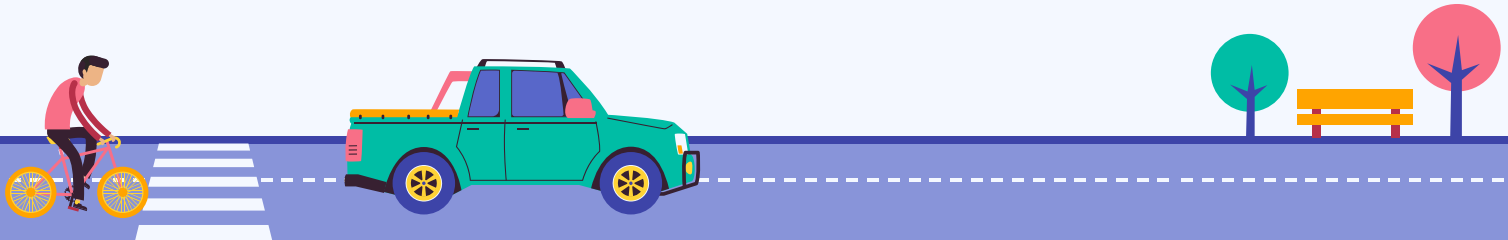
Equity and Housing-related Outcomes

- Mode shift and job access improvement for multi-family residents
- Transportation affordability and EV charging access near the hub



04

Recommendations



Design Guidelines

Steps

Vision & Community Needs

- Define hub **typology** based on **local context, land use, and policy goals**
- Conduct suitability analysis & prioritize **equitable site selection**
- **Engage community** early & continuously

Build Strong Partnerships

- **Coordinate** public agencies, private mobility providers, utilities, and funders
- Align permits, curb space, electrification, and grid capacity
- Establish clear communication and approval processes

Design for Users First

- Prioritize **safety, accessibility**, seamless transfers, and clear wayfinding
- **Integrate transit, micromobility, EV charging, and supportive amenities**
- Incorporate placemaking (lighting, landscaping, art, plazas)

Plan for Implementation & Longevity

- Develop **conceptual designs** to guide costs and stakeholder alignment
- Consider **pilot projects** or phased rollout
- Ensure strong operations, maintenance, and funding strategies

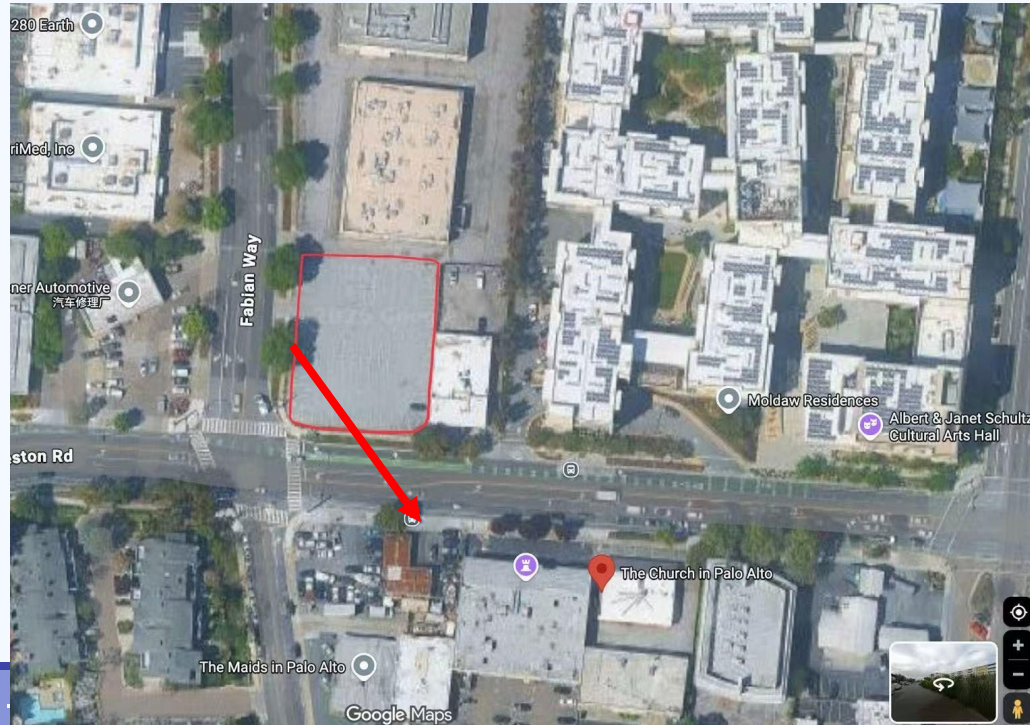
Support Sustainability Goals

- Follow **“Avoid-Shift-Improve”** framework
- Encourage mode shift, electrification, and renewable energy integration



Site Selection

Proposed Site: 3997 Fabian Way, Palo Alto, CA 94303. (San Antonio Rd Corridor)



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- Multi -family proximity
- Daily destinations
- Transit connectivity
- Feasibility (existing parking lot)
- VMT reduction and mode shift
- Readiness and scalability



Thank You!

Does anyone have any questions?

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Limitations



Lack of Community Input

- Unable to conduct surveys or gather direct feedback
- Shifted focus to research-based recommendations



Access to Data

- No access to EV ownership data (privacy restrictions)
- Limited ability to share certain data



Gaps in Technical Skills

- Team lacked advanced GI skills to fully utilize spatial datasets
- Difficulty identifying the “best” site with confidence



Logistical

- No site visit to Palo Alto
- Hypothetical site made it difficult to estimate infrastructure, operations, and energy costs/feasibility

