



MOBILITY HUB

PLANNING & IMPLEMENTATION

GUIDEBOOK

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Transportation Advisory Board

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Many Hubs Initiatives. No Consistency.



LRT Blue Line station with Nice Ride docks, connection to bus transit, and rideshare options.
Source: CDG



Maple Grove Transit Station re-envisioned as a mobility hub.
Source: Aaron Lavinsky



Future mobility hub pilot at Chicago-Lake Transit Center.
Source: Metro Transit



Minneapolis' Mobility Hub Pilot at 12 locations in 2019 and 25 in 2020, with more in the future.
Source: City of Minneapolis



Evie Car Share at EV Spot charging locations in Saint Paul and Minneapolis will anchor hub investments.
Source: Evie Carshare



The ABC Ramps have turned a park-once opportunity into a mobility hub.
Source: ABC Ramps

What's Missing?

Problem: No process or framework for identifying, designing, and implementing mobility hubs.

Need: Common framework to:

- Establish a set of consistent, regionally significant hubs
- Assist agencies with the implementation process
- Advance mobility hubs from concept and planning to implementation and management



What is the Guidebook?

A comprehensive technical assistance resource with:

- Regional mobility hub typology
- Planning strategies
- Kit of parts menu selection
- Design considerations
- Implementation strategies
- Management techniques
- Project list

THREE MODULES



Module 1: Plan It

Module 1 covers the basics about mobility hubs and how they function in different contexts. This includes key guidance that planners and implementers should know.



Module 2: Design It

Module 2 illustrates context-appropriate specifications for mobility hubs, including mobility services, transportation infrastructure, technology, and place-based elements.



Module 3: Make It Happen

Module 3 documents how to go from a plan to an operating mobility hub.

Choose Your Own Adventure

Some Guidebook users will need a full run down of how to plan and implement mobility hubs.

Other users will seek guidance on an a la carte basis.

Just Diving In - County Planner Jay

Full Run Down





Execution Focused - Developer Dani

Customized Implementation



Well-resourced - Transit Planner Wyatt

Direct Guidance



Mission-oriented - Community Advocate Miles

Direct Guidance



Outreach and Engagement

- Public Engagement
 - High density housing surveys (~200)
- Stakeholder Group (35 individuals)
 - 3 Workshops:
 - Siting and Screening analysis
 - Typologies
 - Implementation and Prioritization

Stakeholders Group

Capitol Area Architectural and Planning Board
City of Maple Grove
City of Maplewood
City of Minneapolis
City of St. Paul
City of Woodbury
Hennipin County
HOURCAR
Metro Transit
Metropolitan Council
MNDOT- CAVx Office
Move Minnesota
Musicant Group
MVTA
Nice Ride MN
Plymouth Metro Link
Ramsey County
Scott and Carver Counties
SouthWest Transit
TAAC/State of MN
University of Minnesota Humphrey School of
Public Affairs

Washington County Public Works



HUB DEFINITIONS AND LOCATIONS



Photo: Metro Transit

What are Mobility Hubs?

Places where people can connect with multiple modes of transportation in a safe, comfortable, and accessible environment, facilitating convenient and reliable travel.

DIVERSE MOBILITY OPTIONS

CLUSTERS OF COMMUNITY AMENITIES

ROBUST INFORMATION

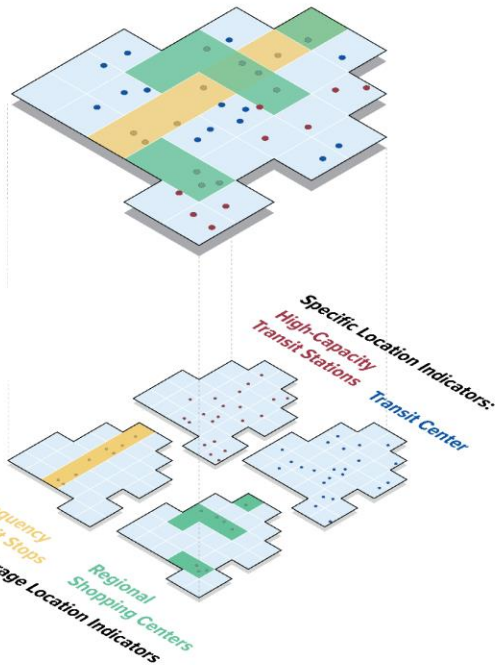
ACCESSIBLE AND INCLUSIVE SPACES



Siting and Prioritizing Hubs

STEP 1

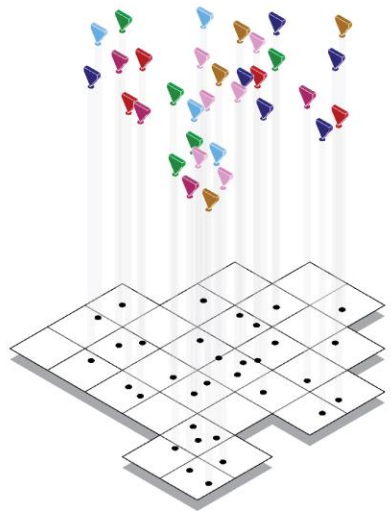
ESTABLISH THE UNIVERSE OF HUB CANDIDATES



STEP 2

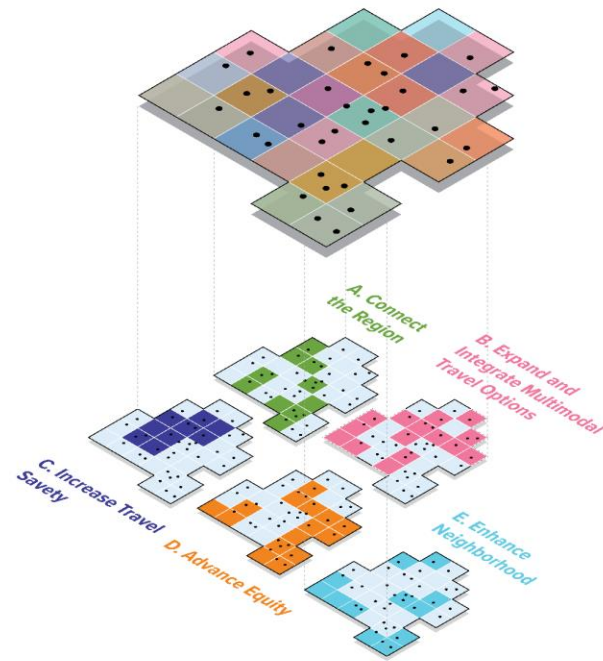
ASSIGN TYPOLOGY TO HUB CANDIDATES

- Urban Core Hub
- Urban District Hub
- Urban Neighborhood Hub
- Suburban District Hub
- Edge Hub
- Activity Hub
- Mobility Investment Hub



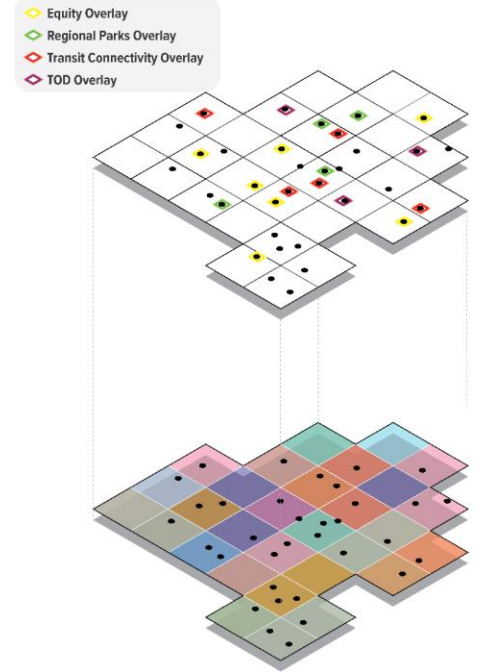
STEP 3

SCORE AND PRIORITIZE HUB CANDIDATES

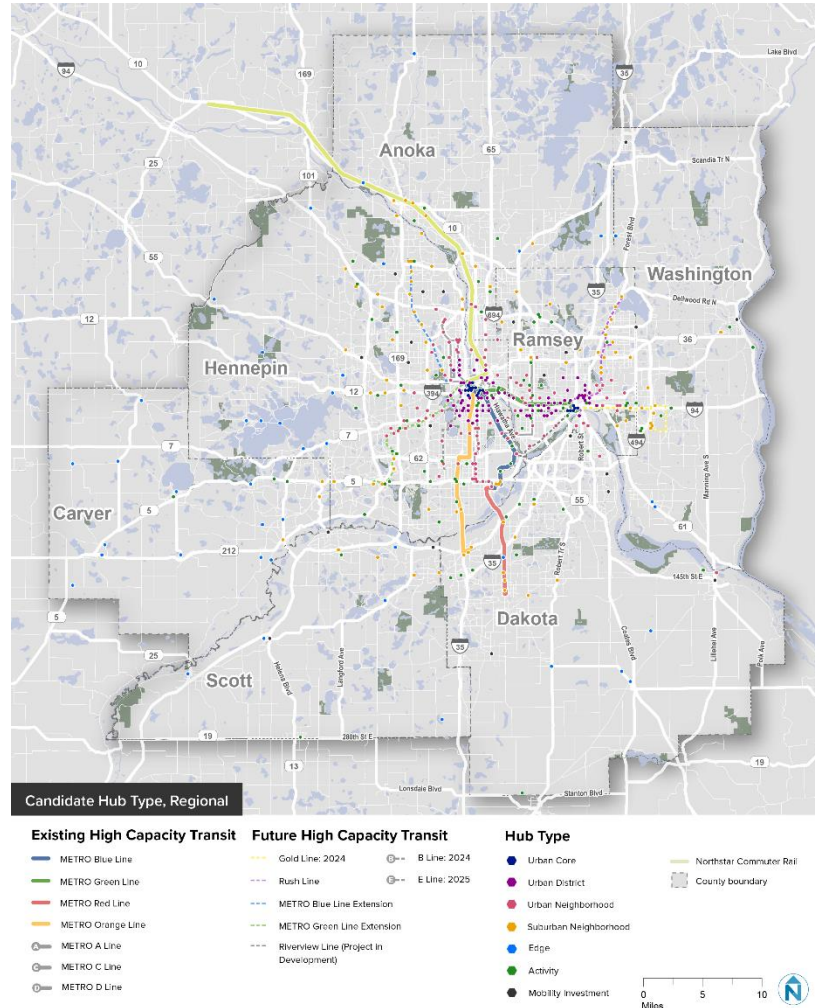


STEP 4

CALIBRATE WITH TYPOLOGY OVERLAYS



Where are Hubs Today?



Hundreds of hubs in operation today:

- Started with ~7,000 hub access points
- Clustered to ~400 hub locations
- 50 priority locations

Note: The regional mobility hub locations will be updated periodically to reflect regional growth, transit investment, and ongoing development, among other factors.



MODULE 1: PLAN IT



Photo: Metro Transit

Outcomes Drive Mobility Hub Action



Guiding Outcomes

- Thrive 2040
- Transportation Policy Plan

Hub Objectives

- Regional Objectives
- Local Objectives

Planning & Management Actions

- Siting Criteria
- Hub Performance Metrics
- Mode Selection/Priority
- Amenity Priority
- Access Hierarchy
- Curb Priority

Outcomes and Objectives for Successful Mobility Hubs

Outcomes and objectives were established to:

- Help frame hub projects
- Align investment and siting decisions with regional mobility goals

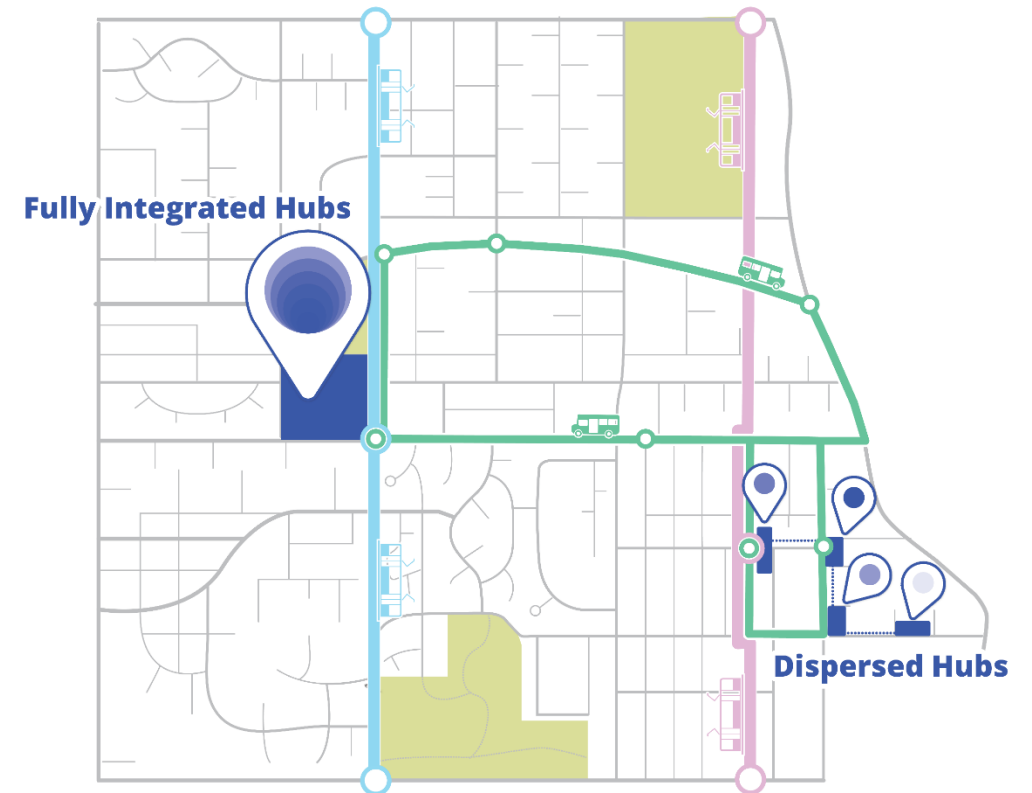


Eight structural questions (1/2)

WHEN DEVELOPING AND DESIGNING

HUBS, HOW MIGHT YOU:

1. **Configure your mobility hub?**
2. Organize and prioritize hub elements at each location?
3. Implement hubs at different scales?
4. Adapt hubs as neighborhood and mobility conditions change?
5. Center equity in mobility hub planning and design?
6. Establish a branded mobility hub environment?
7. Manage demand at hubs?
8. Measure hub performance and iterate?



Some mobility hubs are contained in one location, others offer mobility features across several blocks.

Eight structural questions (2/2)

WHEN DEVELOPING AND DESIGNING HUBS, HOW MIGHT YOU:

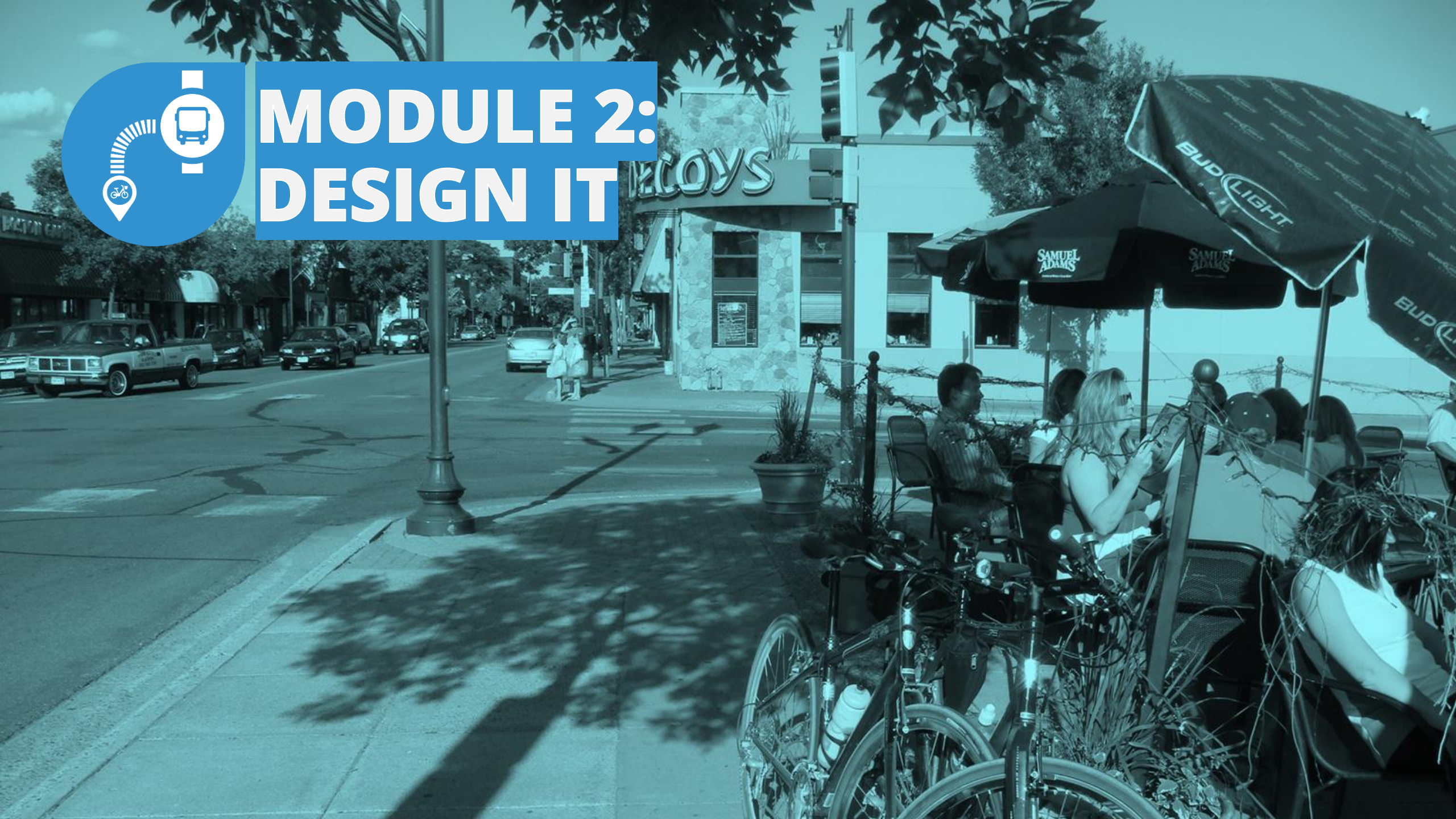
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A conceptual representation of a values-based access hierarchy at a mobility hub.

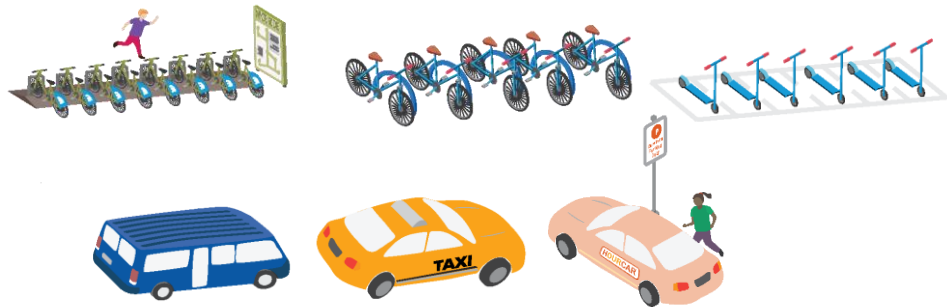


MODULE 2: DESIGN IT



Kit of Parts

Mobility Elements



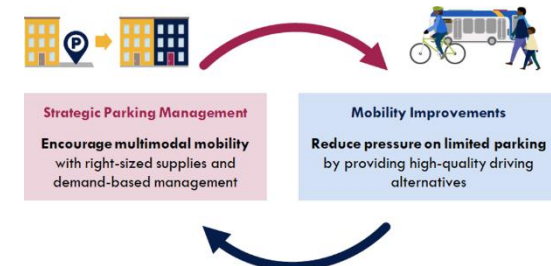
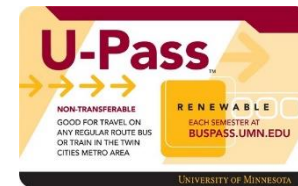
Place Amenities and Cultural Assets



Technology and Information



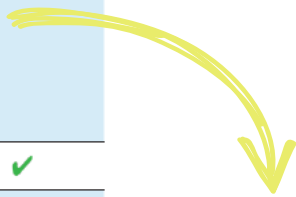
Foundational Demand Management Strategies



Applying the Kit of Parts

Common Elements	Urban Core	Urban District	Urban Neighborhood	Suburban District	Activity	Edge	Mobility Investment
Bike share							
Scooter share							
Moped share							
Microtransit and on-demand transit							
Car share							
Secure bike parking	✓	✓	✓	✓	✓	✓	✓
Pick-up/Drop-off	✓	✓	?	?	✓	?	?
Winter mobility options	?	?	?	?	?	?	?
Real-time travel information & alerts	✓	✓	✓	✓	✓	✓	✓
Public Wi-Fi hubs	✓	✓	?	?	✓	?	✓
Parcel and delivery lockers	✓	✓	?	✗	?	?	✗
EV charging infrastructure	?	?	?	?	?	?	?
Smart curb and parking technology	✓	✓	?	?	✓	✗	✗
Wayfinding	✓	✓	✓	✓	✓	✓	✓
Vendor space	✓	✓	?	?	?	✗	?
Seating and place amenities	✓	✓	✓	✓	✓	✓	✓
Hub lighting	✓	✓	✓	✓	✓	✓	✓
Public activation	✓	✓	✓	✓	✓	✓	✓
Heated spaces	✓	✓	✓	✓	✓	✓	✓

See Service Matching and Decision Tool for Each Mobility Hub Type



A four-step data-driven process to identify the appropriate mobility mix at hubs

Key

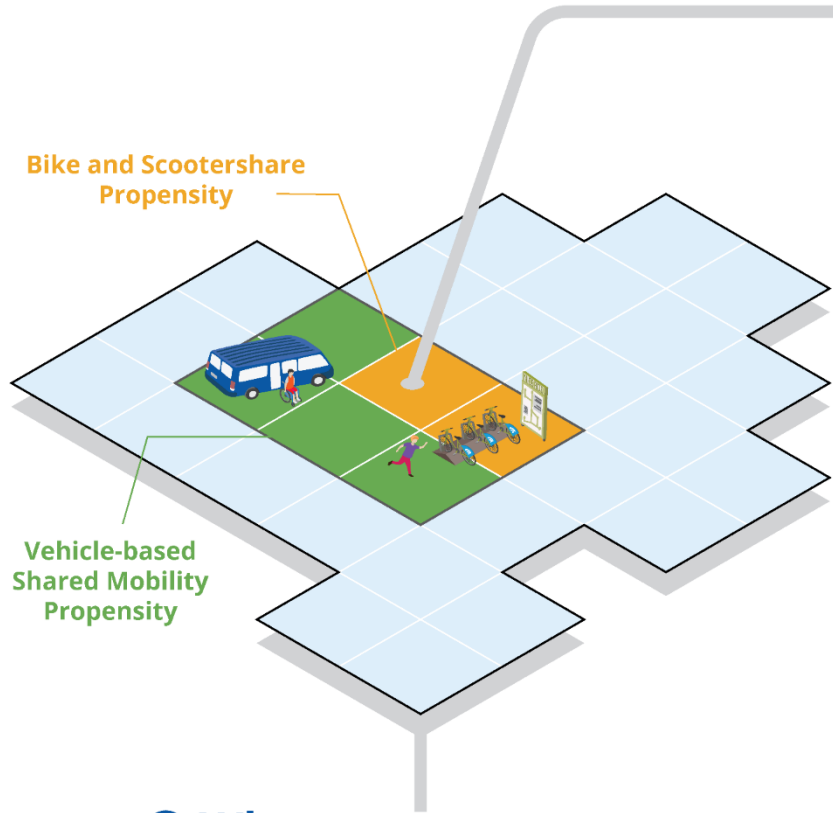
✓ Recommended

✗ Not Recommended

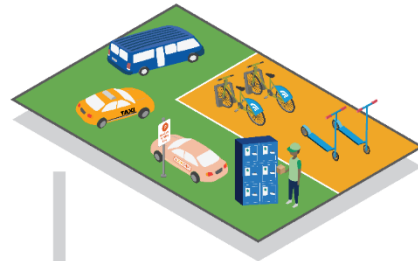
? Optional

The Process to Build and Site a Hub's Mobility Mix

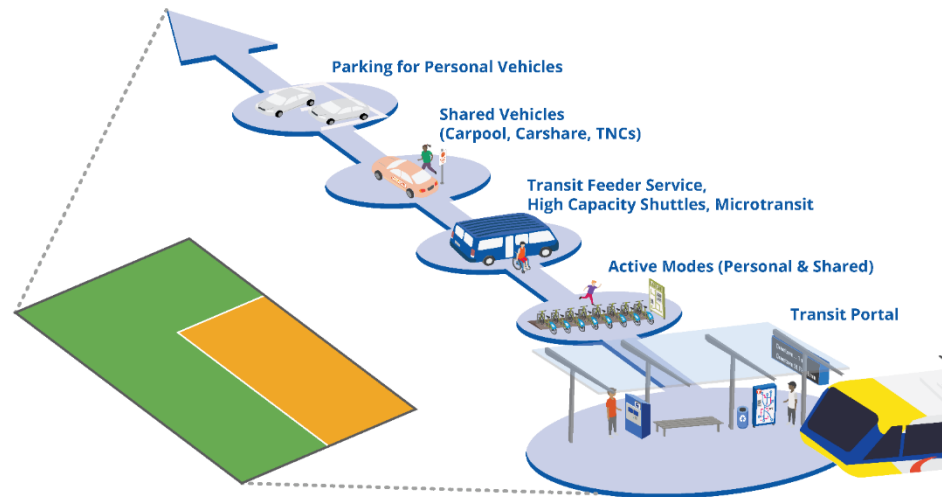
1 Where do mobility options make sense at mobility hubs?



2 What is the mobility mix at different mobility hub types?



3 How do you prioritize mobility amenity siting at specific mobility hubs?



4 How do you negotiate for the space you need?



A Kit of Parts for Every Context

Each hub will feature amenities and enhancements that are appropriate for urban, suburban, and special land use conditions.



Activity Hub

- Co-located mobility options within walking/-biking distance
- Real-time alerts/service announcements
- Real-time information access
- Mobility options supported by accessible language, instructions, and wayfinding
- Safe crossings for people walking, biking, and accessing mobility options
- Agreements with rideshare operators to reliably establish pickup/dropoff zone
- Support existing social and civic infrastructure
- Publicly accessible WiFi and phone charging
- Ample private bike and scooter parking space

Creating the Mobility Hub Typology

(1/2)



Data Indicators

- Urban-rural transect:
 - Service area designations
 - MUSA community types
- Predominant transportation access and land use mix
- Transit characteristics
- Areas of Mobility Need

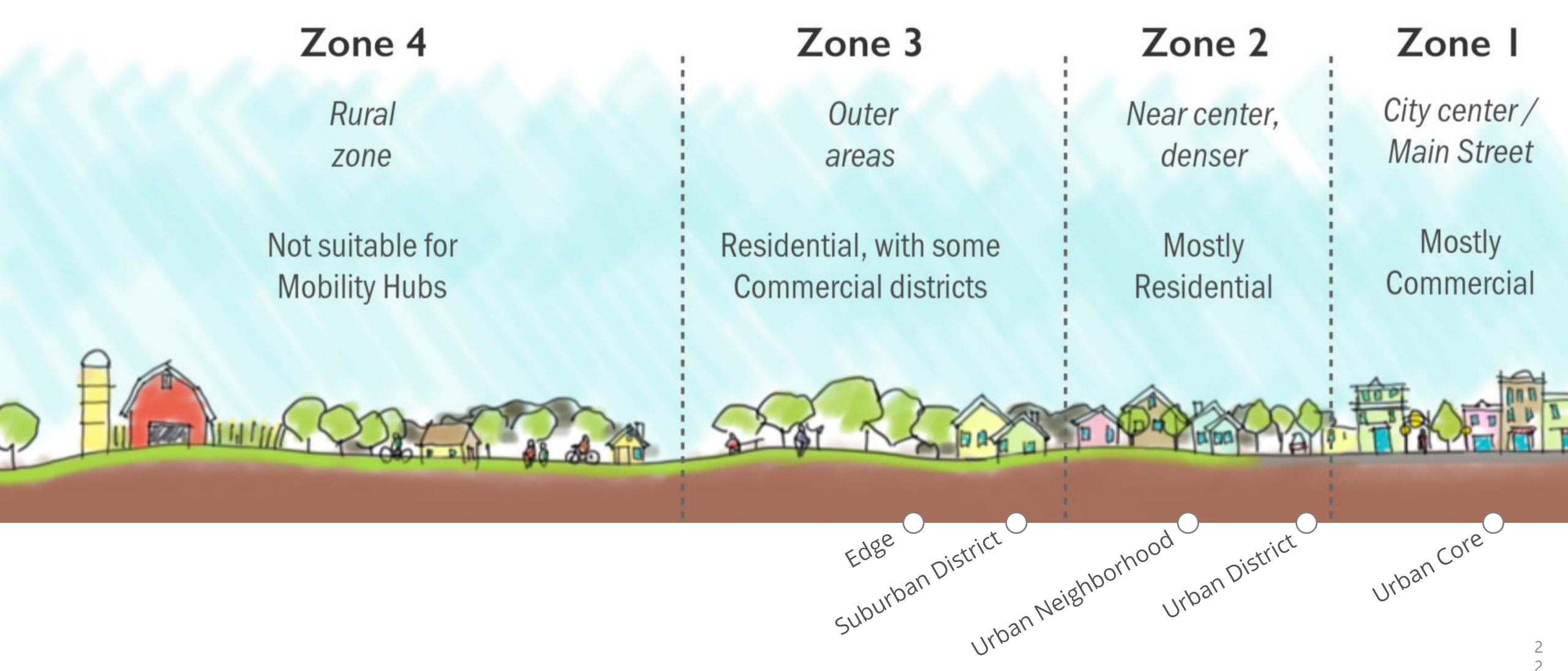
Overlay Considerations

- High-capacity / High-Frequency Transit
- Transit-oriented development
- High-visitation Regional Parks
- Equity

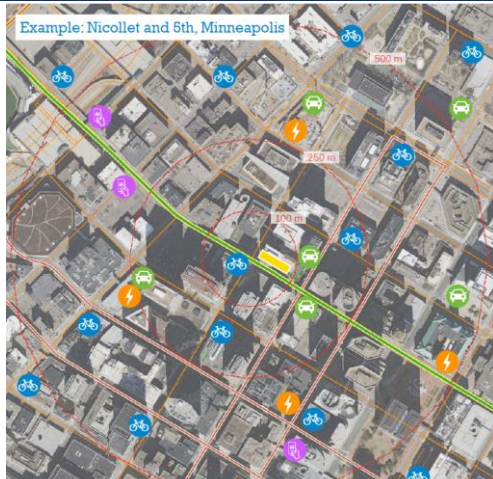
Type Definition and Kit of Parts

- Siting criteria
- VMT impact
- Hub performance metrics
- Mode selection/priority
- Amenity priority
- Access hierarchy
- Curb priority

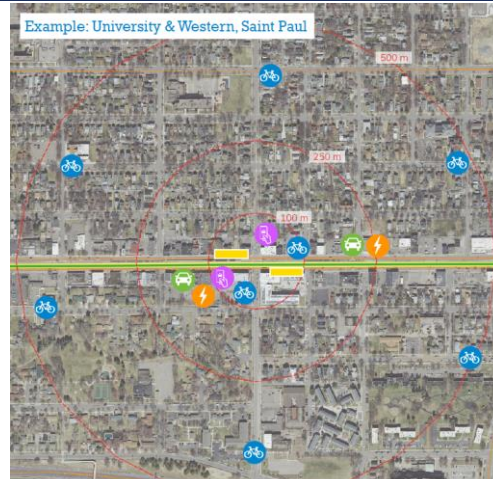
Creating the Mobility Hub Typology (2/2)



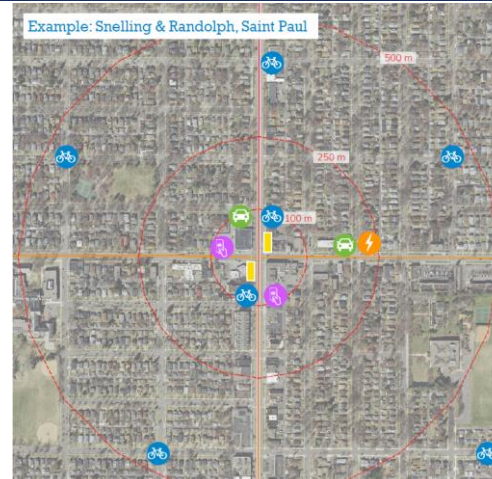
The Twin Cities Mobility Hub Typology (1/2)



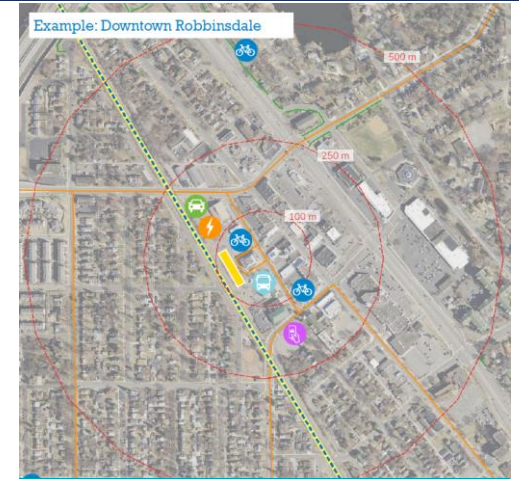
URBAN CORE



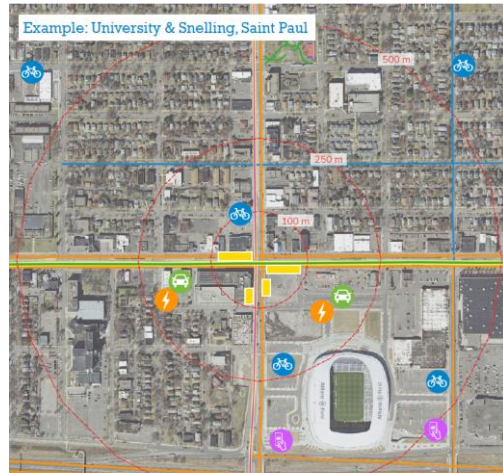
URBAN DISTRICT



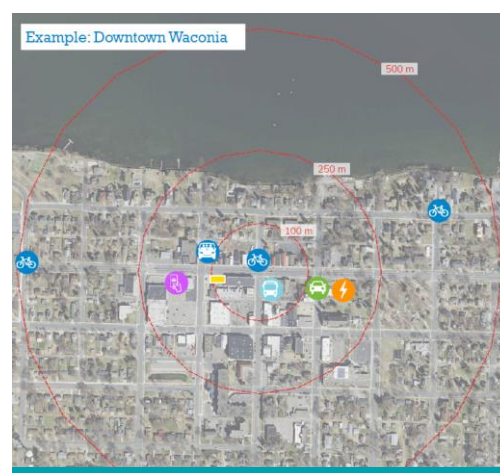
URBAN NEIGHBORHOOD



SUBURBAN DISTRICT



ACTIVITY



EDGE



MOBILITY INVESTMENT

The Twin Cities Mobility Hub Typology (2/2)

Suburban District Hubs

Suburban District hubs are in areas with low residential density and are near focal retail, commercial and office uses. While not always, development around these areas may be more recent and street grids may be less connected than in urban areas.

These areas may have significant opportunities for mixed-use redevelopment centered around access to commercial centers and high-frequency transit.

Key Characteristics

- » Growing TOD orientation
- » Fully developed focal location, near/in active districts
- » Varying access to high-frequency transit

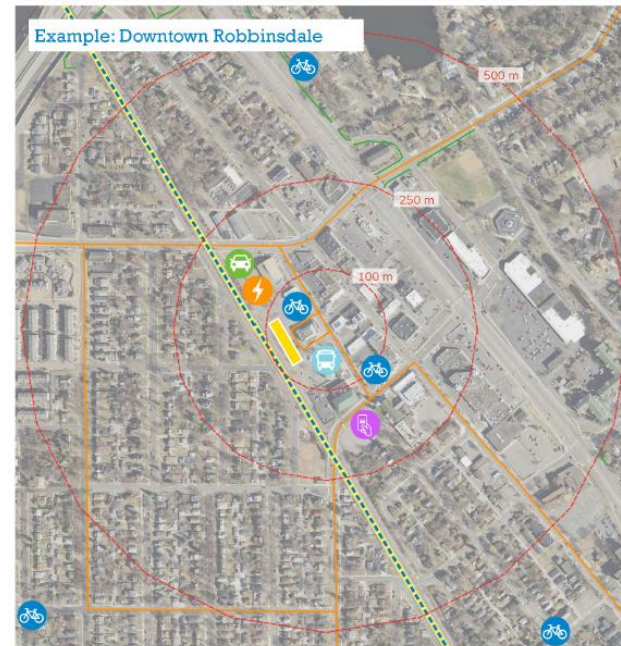
Sample Locations

- » Downtown Robbinsdale
- » Eden Prairie Town Center

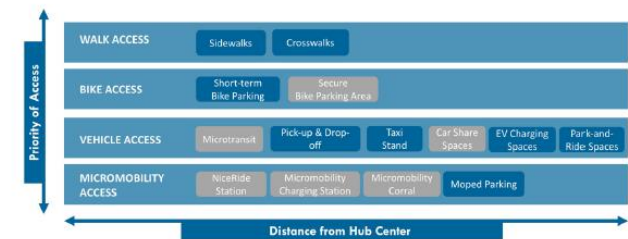


City Center in Plymouth.
Source: CDG

Context Dashboard	Low	Med	High
Density & Height	✓		
Mix of Commercial / Retail & Office	✓	✓	
Multifamily Residential	✓		
Single Family Residential			✓
Pedestrian and Bicycle Activity	✓		
Bike and Scooter Share Propensity	✓		
Vehicle-Based Shared Mobility Propensity			✓
Frequent Transit Service	✓		
Motor Vehicle Traffic	✓		
Curb Demand	✓		
Off-Street Parking Supply		✓	✓



Service Matching and Decision Tool



Grey tiles indicate that some locations are not suitable without additional subsidy or other type of support.

Foundational Demand Management Strategies for Mobility Hubs

- » Priced parking
- » Unbundled parking
- » Right-sized parking
- » Transit subsidies
- » TDM ordinance
- » Mobility hub overlay
- » Real-time information displays
- » Guaranteed ride home
- » TMA/TMO membership
- » Commuter challenges, prizes, and reward programs



MODULE 3: MAKE IT HAPPEN



Implementation Pathways (1/4)

The pathway to implementation will likely differ from hub to hub or even corridor to corridor.

**RETROFIT AN EXISTING
LOCATION**

**PILOT &
DEMONSTRATE NEW
FEATURES**

**ENCODE HUB
ENHANCEMENTS**

**INTEGRATE INTO
PROJECTS AND
DEVELOPMENTS**

**LEVERAGE PARTNERS
FOR BUILD OUT**

Implementation Pathways (2/4)

RETROFIT AN EXISTING LOCATION

- **Layering:** Strategic restructuring of space and offerings. This is an incremental and tactical approach to certain retrofit projects, wedging amenities into identified underutilized spaces at existing stations, stops, parking facilities, plazas, and more.
- **Revamping:** Major service and infrastructure investment. Revamp retrofits are often longer implementation efforts programmed into capital improvement cycles or with grant funds.



FORMERLY DIAGONAL PARKING TURNED PUBLIC TRANSIT PLAZA

Implementation Pathways (3/4)

PILOT & DEMONSTRATE NEW FEATURES

Short-term, easy to implement pilots to test:

- New curb uses and regulations
- New, untested mobility services
- Winter weather features
- Temporary wayfinding and branding features
- Parklet spaces
- Popup retail
- New micromobility parking concepts

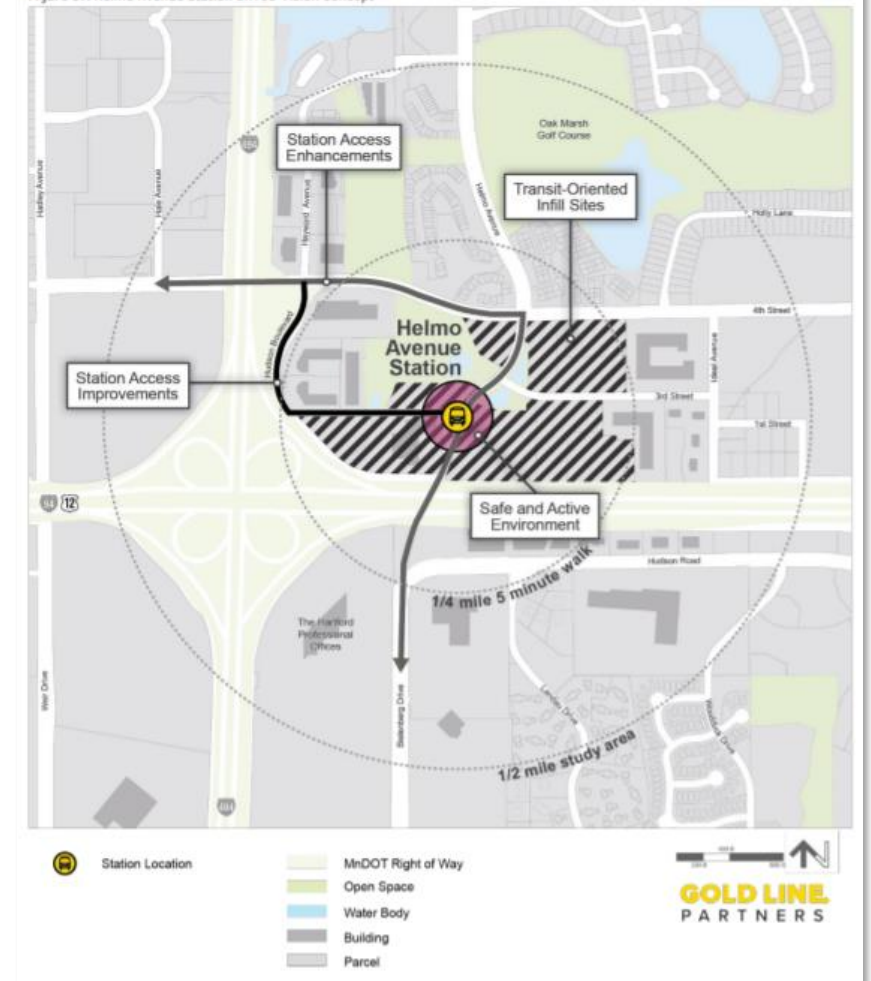


Implementation Pathways (4/4)

INTEGRATE INTO PROJECTS AND DEVELOPMENTS

- Transit capital project integration
- Bikeway and urban trail project integration
- Curb management and reallocation
 - Extend programmable space
 - Expand PUDO zones
 - New loading zones
 - Curbside dining space
- Station area plans, neighborhood master plans, and corridor plans

Figure 69. Helmo Avenue Station BRTOD Vision Concept



Guidebook Implementation and Next Steps

- Implementation
 - Future Mobility Hub workshop
 - Narrated presentation/training
 - Update schedule (every 2-4 years)
- Next Steps
 - Stakeholder Review and map development (early March)
 - Final Document Modifications
 - Public engagement close out (survey takers)
 - Publication – MTS Website, info items, newsletters

Help us spread the word!

THANK YOU!

Project Management Team |

Sonja Burseth

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Daniel Pena

