Memo

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Date: Friday, March 28, 2025
To: Metro Transportation Policy Alternatives Committee (TPAC)
From: Ally Holmqvist, Senior Transportation Planner
Subject: Community Connector Transit Study: Vision and Policy Framework

Purpose

This memorandum provides an update on the Community Connector Transit (CCT) Study to support discussion on: 1) the developing policy framework, 2) the proposed opportunity area and mobility hub assessment methodologies and 3) the planned engagement approach. Input will help shape the role that community connectors play in improving access to the regional transit network and mobility hubs play in creating comfortable, convenient connections within that network, guide how we identify areas of opportunity for both transit tools, and influence the approach for engaging community in this work that will inform the 2028 Regional Transportation Plan update.

Introduction

Right now there is a lot of regional momentum around community connector transit (i.e., shuttles, microtransit, vanpools) which can unlock more transportation access in the region and make transportation more equitable. A strong foundation of recent regional work, coupled with the suite of local planning efforts by agency partners, has set the stage to explore potential solutions for improving community connections to essential destinations and existing and planned frequent transit. We must continue improving transit's accessibility, service, reliability, and reach to continue to strive to become the region we've envisioned.

The CCT Study has brought together greater Portland partners, business representatives and community members to explore a shared vision for investing in a local transit system that better serves everyone. It will recommend a path forward for successfully achieving that vision toward supporting regional goals and provide a roadmap for implementing identified opportunities.

Last October, TPAC (along with other Metro and County advisory committees and regional partners) received an introduction to the study. TPAC expressed that it was important to consider the following as part of the next phase of the study: building from local partner planning work, latent demand for transit, opportunities to pursue alternative service where it is not feasible for bus to operate today, cost-efficiency and coordination with affordable housing developments and employers. TPAC also noted service costs as an important consideration for future study phases.

The project team (a group of Metro transportation and land use planners and consultants) has been working with the Transit Working Group[1] to incorporate what was heard from advisory committees, regional stakeholders, and community to create a draft policy framework, develop and begin to implement the approach for re-envisioning the regional community connector transit network, and implement the engagement strategy. This work has built on recent transit planning efforts, regional and national best practices and community feedback to explore community connector transit opportunities and determine the role for this type of transit in providing a service coverage solution as part of the local element of the transit vision.

[1] *Includes partner representatives from SMART, Ride Connection, Clackamas County and its cities (x2), Multnomah County and its cities (x2), Washington County and its cities (x2), TriMet, the City of Portland, ODOT, C-TRAN and the Southwest Washington Regional Transportation Council.*

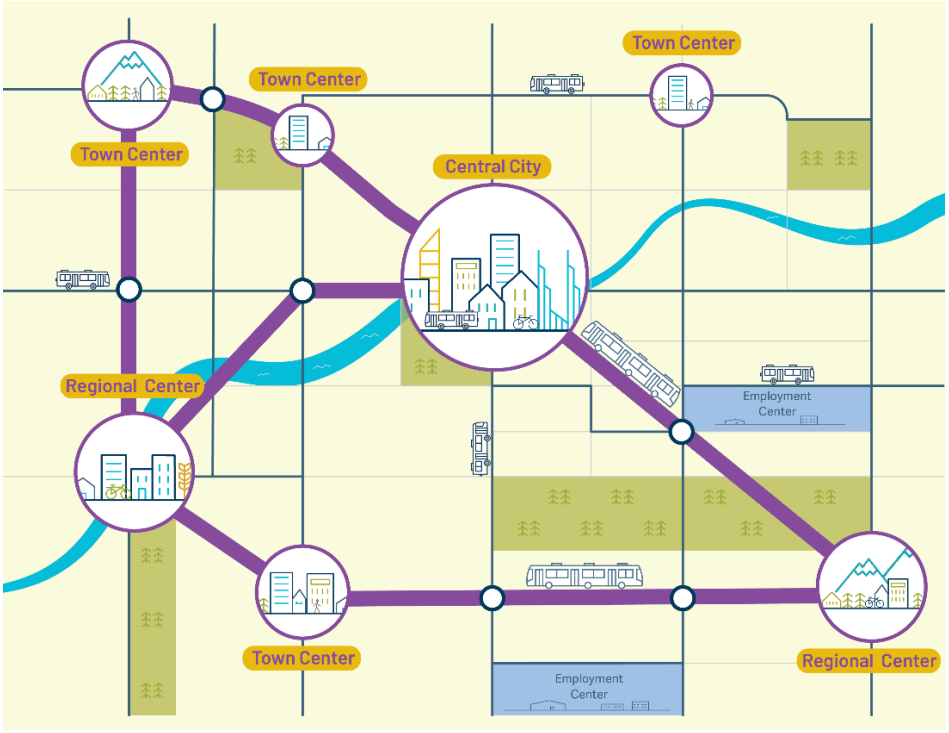
Policy Context

The Regional Transit Strategy (RTS), adopted in 2018, established the future vision for the regional transit network that is rooted in the 2040 Growth Concept and is expanded and carried forward in the Regional Transportation Plan (RTP). These establish the vision and goals for regional transit. The RTP includes a local transit component that complements the RTS, which includes the Regional Transit Network Vision (map and description of updates), local transit policies, and list of 2030 and 2045 Fiscally Constrained and 2045 Strategic local transit projects. The CCT study will make recommendations for updates to this local transit component of the RTP and the RTS, as well as to the Regional Transportation Functional Plan and Urban Growth Management Functional Plan.

Updating the Local Transit Policy Framework

There are many tools in the transit toolbox for implementing the regional vision to better serve growing communities and achieve regional goals of equity, climate, economy, safety, and mobility in the future. Figure 1 shows the RTP policy framework for how each tool can be applied to maximize benefits and leverage other tools to best work together as a system.

Figure 1. Current Regional Transit Vision



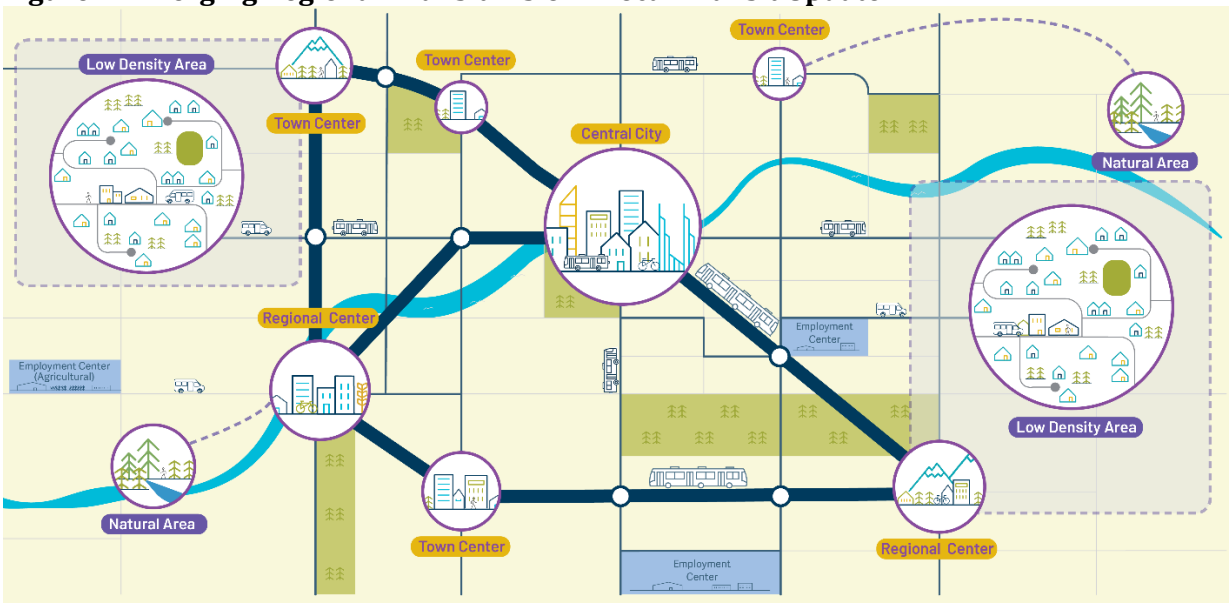
High-capacity transit connects the central city and regional centers (like Gresham, Clackamas and Hillsboro) to each other and town centers (like Milwaukie, Troutdale, and Sherwood) along major travel corridors. All-day frequent bus service along corridors and main streets links town centers to each other and neighborhoods to centers. Regional buses travel along most other arterial streets to better serve existing and growing communities. Local bus provides basic service for local destinations.

Community connector transit is one of these tools. Local connectors can expand the transportation network and improve transit in areas with limited access. Community connectors are best used where transit does not exist today and in areas where traditional transit service is not viable. They provide a mobility solution for lower-density suburban and exurban areas typically at the regional edge. This is particularly important as gentrification patterns have pushed more communities that rely on transit to these areas that are less traditionally transit-supportive. Community connectors are most efficiently used to facilitate first and last-mile connections to frequent and high-capacity transit to extend the reach of the existing network. However, they can also link neighborhoods with local jobs and community places (including regional recreation sites only accessible by car today) and employees to their employment center (especially sites with shift work where off-peak service is needed) to improve access. In areas where local bus service is planned in the future but does not

yet exist today, community connectors can bridge the gap to build ridership for future service. Figure 2 illustrates this emerging expanded vision for local transit to consider for the 2028 RTP.

To understand how to best use this tool, the project team leveraged existing work done to identify needs through regional and local plans (e.g., Emerging Technology Strategy, Washington County Transit Study, Clackamas Transit Development Plan, Forward Together) and community feedback (from the summary of the past ten years of transit input). This work led to the development of four key themes that guided regional and national best practices research[2] to explore where and how community connectors have been successful and what elements contributed to that success. In addition to informing future recommendations by the study, this insight gave shape to the role that community connectors can play as part of our regional transit system in providing mobility in low density areas, access to jobs, access to major outdoor recreation areas, and off-peak mobility at different times of day (particularly for shift workers).

Figure 2. Emerging Regional Transit Vision - Local Transit Update



Key takeaways from the regional and national best practices review (Attachment 2) include:

- Community connector services can be successful first- and last-mile connections for people looking to travel beyond the fixed-route transit network for a range of different trip types. Success is sometimes defined explicitly (number of trips per revenue hour or cost per trip). However, a focus on the degree to which desired mobility outcomes are reached (quantitatively or qualitatively) for riders is also an important measure of success.
- Community connector service can be delivered with different types of fixed-route, flexible, and on-demand services and can be delivered by a range of different organizations, agencies, and government departments.
- Agencies in greater Portland already operate different types of first- and last-mile transit solutions. These can be implemented through different operating models and partnerships.
- First- and last-mile services may be effective in situations where demand for transit service is lower than would support typical fixed-route transit. There are other conditions as well,

[2] *Case studies included: Ride Connection's Community Connectors, C-TRAN's The Current, CapMetro's Pickup, Multnomah County's ACCESS Shuttle, City of Inglewood/Los Angeles World Airport's Iride, CalVans Vanpool, Pace Feeder Vanpool, King County Metro Community Van and Trailhead Direct, and UTA On-Demand.*

such as street connectivity and geometry or land use, that make first- and last-mile services viable (since they typically use smaller vehicles than fixed-route transit). However, there needs to be some level of demand for transit to make financial sense for providers.

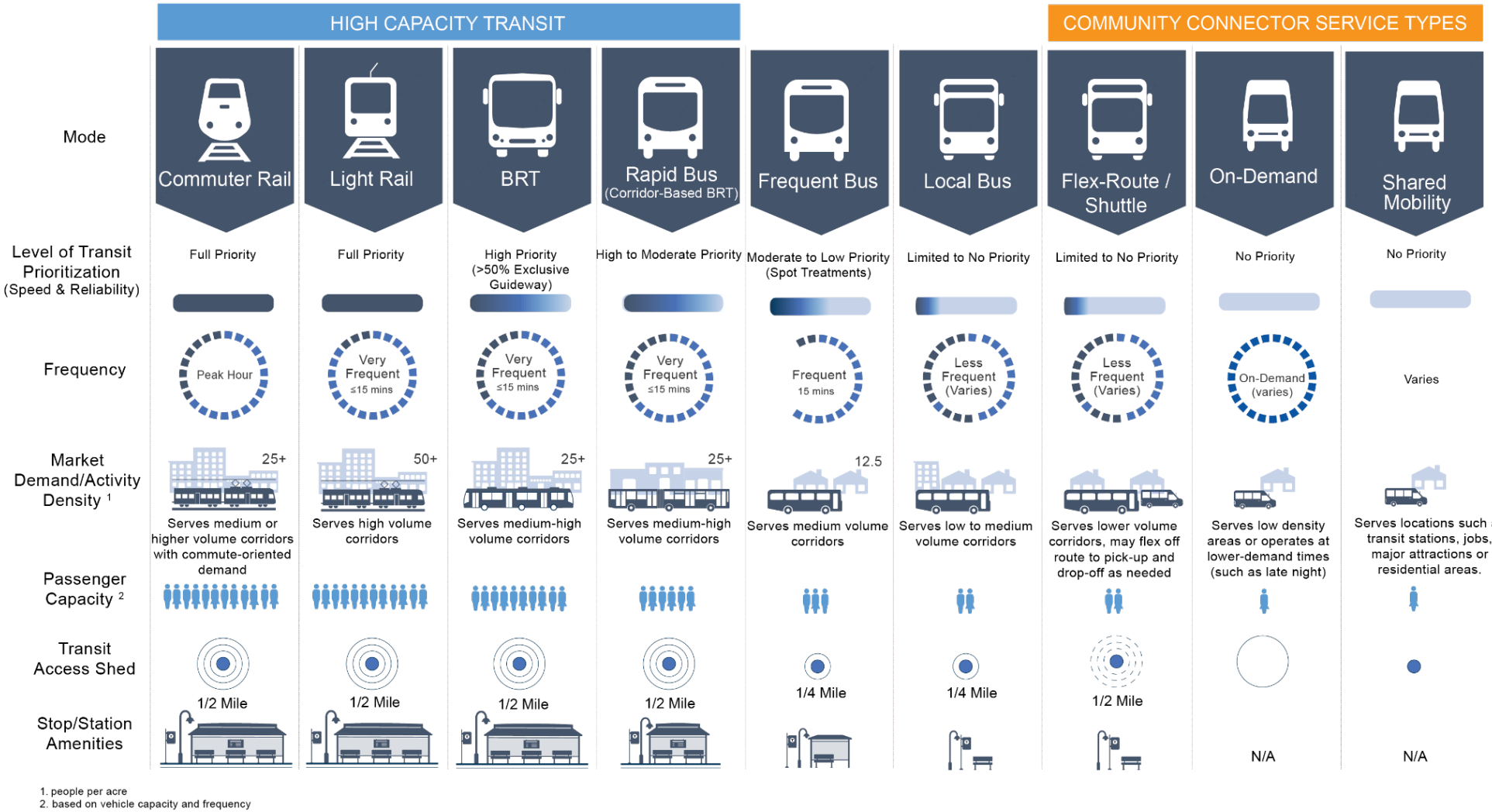
- Non-transit programs that support mobility needs (transportation options), can complement transit service or be more effective than service under certain circumstances.
- Last-mile transit services are sometimes a part of a larger suite of travel demand management tools used by one or multiple partner organizations or agencies. The services and programs that are part of these broader transportation management efforts are often designed to complement one another or serve unique local needs.
- Success for first- and last-mile services in each of these themes described above was not measured against typical fixed-route services. Providers measure the performance against specific metrics that assess the success of the service compared to similar services, on key indicators, or against mission-based goals such as equitable access.
- Some transit providers operate on-demand services that replace low-performing fixed routes, helping connect an isolated equity population, or example, to the transit network and to low-density areas where fixed-route service would not likely perform well.

Key takeaways from the best practices review helped shape the defined use for community connectors as a tool in our transit spectrum toolbox shown in Figure 3 below. The review also provided more specific suggestions for which types or "modes" of community connectors and operational strategies could provide the best solution to meet needs identified in each of the four theme topics (mobility in low density areas, access to jobs, access to major outdoor recreation areas, and off-peak mobility at different times of day) as illustrated in Table 1. These lessons learned will also help shape the recommendations and strategies included in the final report.

Table 1. Summary of Community Connector Best Practice Needs Solutions

Gap	Opportunities	Solutions
Mobility in low-density areas	• *Increase access to fixed-route transit network* • *Test demand for transit in new geographic markets* • *Replace low-performing fixed-route service* • *Enhance service availability when fixed-route transit isn't efficient*	• Flex route shuttle • On-demand microtransit
Access to jobs	• *Connect to employment sites in low-density areas* • *Increase access to regional fixed-route transit networks*	• Vanpool • On-demand microtransit • Flex route shuttle
Access to major recreation	• *Connect to the fixed-route regional transit system* • *Increase outdoor access for people without cars* • *Target equity populations through public-private funding and CBO partnerships*	· Fixed-route seasonal service · Volunteer-driven microtransit
Time-of-day mobility needs	• *Leverage programs for transportation options* • *Provide a basic level of coverage in off-peak hours* • *Avoid eliminating fixed-route trips with poor ridership during hours with low demand/ridership*	• On-demand service • TDM Programs

Figure 3. Updated Transit Network Tool Spectrum

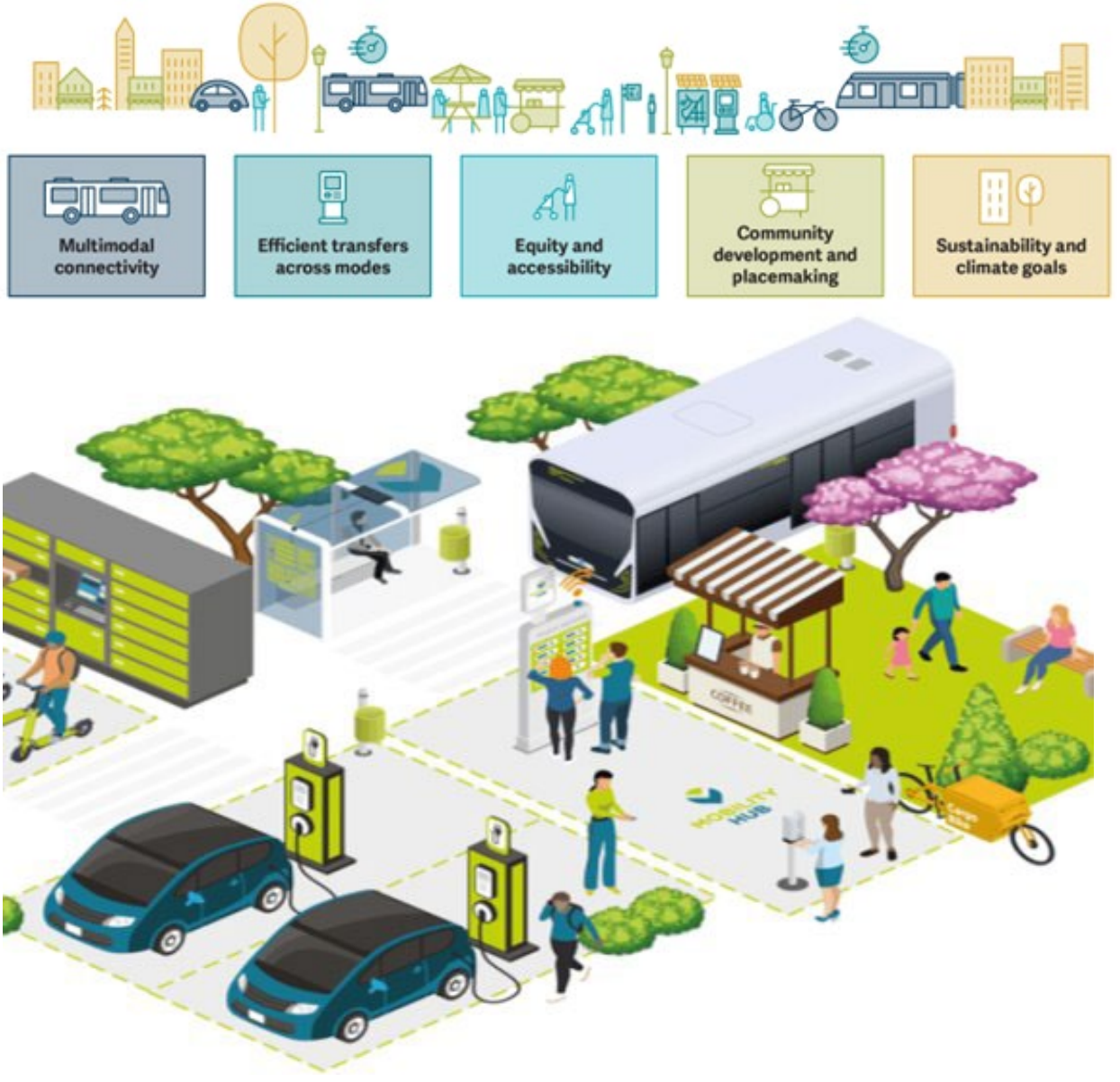


1. people per acre
2. based on vehicle capacity and frequency

Developing the Regional Mobility Hub Policy Framework

As we plan for shuttles to link to frequent and high-capacity transit – it will also be important to ensure these connections and connection points are convenient and comfortable. Mobility hubs are places where people can access and make efficiently transfer between different types of transit and transportation options. Not only where shuttles connect to frequent transit, but where different frequent transit routes connect with each other and/or with high-capacity transit. They are designed to simplify multimodal travel, enhance first- and last-mile connections, and improve access to a wide range of transportation choices. These places combine transit service and resources, first and last-mile transportation options and wayfinding (i.e., walking and bicycling routes, bikeshare, rideshare), and stop and community amenities together to create vibrant, people-centered spaces that support equity, sustainability, and community identity. Mobility hubs also support the 2040 Growth Concept land use designations, with different hub types serving different land use contexts, and are closely linked with transit-oriented development, which focuses on creating high-density, mixed-use, walkable neighborhoods near transit. Figure 4 illustrates this emerging framework.

Figure 4. Emerging Regional Mobility Hub Framework



While individual jurisdictions will prioritize local needs—such as supporting neighborhood-level active transportation or last-mile connections—regional mobility hubs are intended to support broader multimodal networks that facilitate cross-jurisdictional travel and promote regional connectivity. This means that mobility hubs in dense urban centers, suburban town centers, and lower-density communities will vary in scale and function, yet all contribute to a cohesive, integrated transportation system that supports regional goals for equity, climate, and accessibility. Importantly, the toolkit will also support jurisdiction-led implementation of mobility hub concepts over time. It provides a flexible framework that allows local agencies to adapt hub concepts to meet their unique community needs while maintaining consistency with regional goals over time.
To serve the diverse travel needs and land use patterns across the Portland Metro region, the framework outlines four primary mobility hub types, each tailored to its surrounding context and role within the regional transportation network:

- **Major urban hub (e.g., Downtown Portland Transit Mall):** Major Urban Hubs refer to high-capacity transportation hubs located in dense, mixed-use urban cores, offering the greatest variety of mobility options and amenities in the region. In the Portland Metro context, these generally refer to high-capacity transit1 stations within higher-density urban areas with significant investments in multimodal integration.
- **Regional hub (e.g., Beaverton Transit Center):** Regional Hubs provide important regional transit connectivity and typically have transit connections to the region and downtown Portland. These hubs may support a mix of transit services—such as MAX, FX, frequent transit service, and shuttle connections—and may include transit-oriented development (TOD) features. While situated in more suburban contexts, Regional Hubs bridge the gap between urban and suburban mobility needs by providing a variety of transportation options ranging from high-capacity transit to car-share and micromobility.
- **Town hub (e.g., Orenco Station, Lents):** Town Hubs both serve local travel needs and have strong connections to regional transit services. These hubs are typically situated in less dense or suburban areas of the region. Town Hubs balance local accessibility with regional connectivity, acting as community focal points that support multimodal travel and vibrant public spaces. Town hubs can vary in transit levels and may lack high-capacity or frequent transit services in some cases.
- **Local and emerging hub (e.g., Tualatin Park and Ride):** Local and emerging hubs refer to hubs in rural centers and emerging suburban areas of the region. They can serve suburban employment districts, campuses, and medical centers. Local and emerging hubs may or may not have frequent bus service, and the surrounding land use is generally auto-oriented. Emerging transit nodes in the outer region can also be considered as future Local Hubs, primarily serving local or area-level travel needs (e.g., Tigard Triangle).

A forthcoming Mobility Hub Toolkit (currently in development) will provide concepts and guiding principles to encourage cooperative partnership by regional and local agencies to implement mobility hubs together in ways that respond to local character and unique community needs. The toolkit will describe a “kit of parts”: the elements that can or could be found in each of the four types of mobility hubs. There are several core elements that proposed across all four hub types: transit facilities (light rail or bus), active transportation infrastructure (safe pedestrian facilities and bike parking), and amenities (seating, shelters, lighting, and trashcans).

Identifying Community Connector and Mobility Hub Opportunities Using the Framework
Beyond the conceptual policy frameworks outlined above, the RTP includes a future transit network vision map (see Figure 5 below) which shows what the concepts look like when applied as a regional system with service at the aspirational targets established by the Climate Smart Strategy. In this application, investment scenarios would need to look much different than they do today, so the network vision illustrates the model scenario to help guide regional investment decisions in the direction toward the future we want to see.

Community/jobs connectors are included in this vision (the tan areas on the map) as originally envisioned in 2015 by TriMet's long range service plans. However, recent work has changed both the system we have today (i.e., TriMet's Forward Together, SMART's Master Plan, County Transit Development Plans) and the system we envision for the future (e.g., 2023 High Capacity Transit Strategy, Washington County Transit Plan). New technologies like microtransit and new momentum for programs like vanpool also provide new opportunities for rethinking the future. Additionally, the vision only calls out transit centers that exist today and not where we would want to look at creating spaces that facilitate more comfortable, convenient connections in the future.

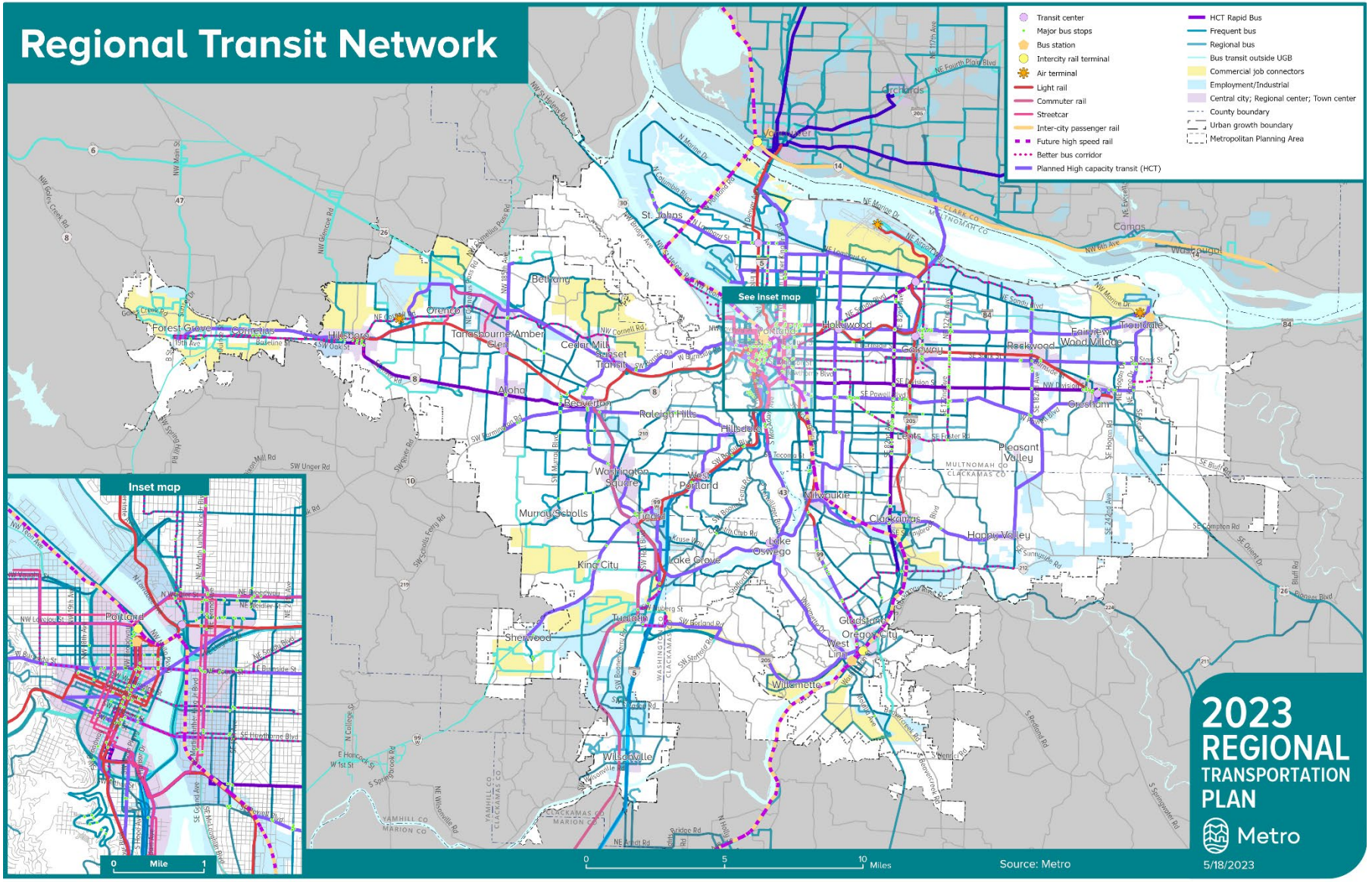
Building from the emerging vision role for community connectors, the project team has developed approaches for identifying opportunity sites for both future community connectors and mobility hubs to update the transit network vision map with more solutions for local transit coverage. Identifying community connector opportunities involves answering three key questions (with the considerations underlying each question outlined in Table 2):

- **Transit Access Gaps:** Where are there areas today that are not served by transit, but where people may need it to go?
- **Area Transit-supportiveness:** Within these unserved areas, what locations demonstrate demand for and/or the different transit-supportive ingredients part of success recipe?
- **Leveraging Opportunities**: Within these unserved areas, what do other resources tell us about existing or future markets for community connectors?

Table 2. Community Connector Opportunity Area Assessment Criteria

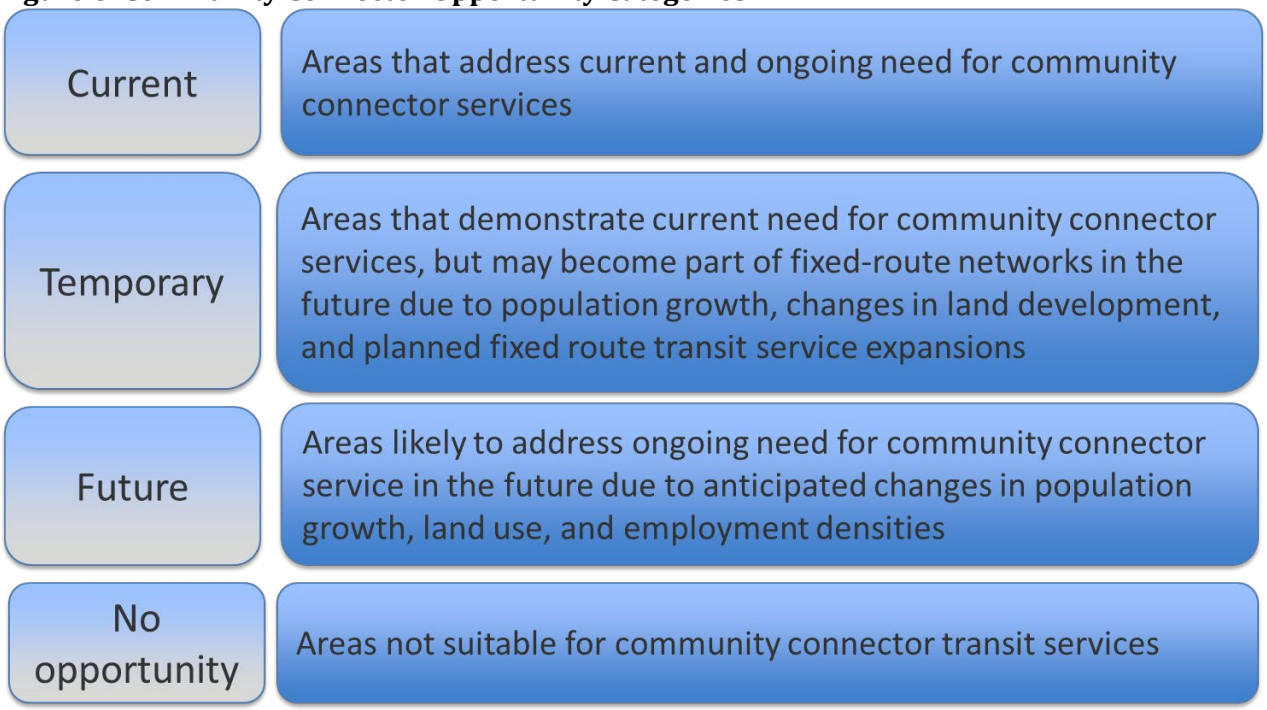
Transit access gaps	Area transit-supportiveness	Leveraging opportunities
Define and map areas without fixed-route transit or existing community connector service.	*Develop and score criteria for assessing transit propensity.*	*Score demand and support for new or expanded community connector transit service.*
9 0.5+ miles from frequent transit stop 0.25+ miles from other service Key community destinations Med/high-density zoning	8+ people per acre Top quartile of TriMet Equity Index Major employer sites Metro 2040 land use designations	Local/regional plans Partner & community feedback Origin-destination travel demand Needs/best practices alignment

Figure 5. Regional Transit Network Vision



The outcome will be a map of opportunity areas sorted into four broad categories: **current opportunities** that exist today, **temporary opportunities** where bus service is envisioned in the future but where connectors can build ridership in the near-term, and **future opportunities** that may not have the demand for a community connector near-term, but are anticipated to build that market in the future. Figure 6 describes these categories in more detail.

Figure 6. Community Connector Opportunity Categories



To identify potential mobility hub locations, the project team will evaluate the following factors (with the underlying considerations outlined in Table 3 below) to ensure that the hubs effectively meet the needs of communities and contribute to the region's transportation goals:

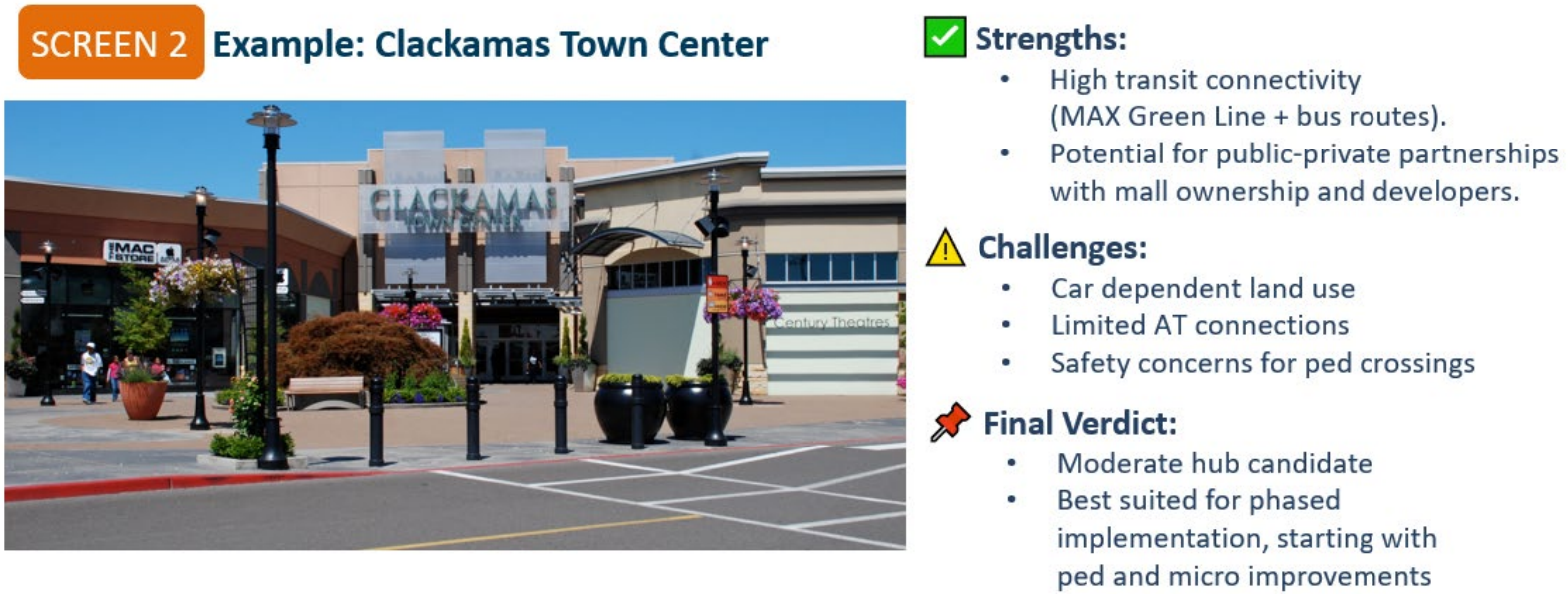
- **Connectivity:** Potential sites are well-integrated into the broader transportation network where seamless connections are needed between different types of transit and different modes of transportation.
- **Land use and regional significance:** Potential sites align with areas planned for higher-density, mixed-use development with strong transit connections, creating ideal conditions for integrating multimodal transportation services and enhancing regional mobility.
- **Equity and community impact:** Potential sites serve historically marginalized neighborhoods and reduce transportation barriers for underserved communities and improve connections to key destinations like jobs, healthcare, and education.
- **Transit access:** Potential sites enhance seamless access to and from the regional transit system, including bus, light rail, and other high-capacity modes.

The result will be a list of candidates for **regional hubs** supporting a mix of transit services (e.g., Beaverton Transit Center), **town hubs** bridging regional and local travel with vibrant public spaces (e.g., Orenco Station), and **local and emerging hubs** (e.g., Tualatin Park and Ride) connecting local travel modes. Figure 7 below illustrates an example candidate assessment result.

Table 3. Mobility Hub Opportunity Assessment Criteria

Success Factor	Evaluation Criteria	Measures	Data Sources/Methods
Connectivity	• **Transit connections** (including intercity) • **Connections to active transportation (AT) facilities** • **Existing Multimodal Integration** (bike, scooters, shuttles, etc.)	• Ability to make transit transfers • Active transportation network completeness • Availability of different modes (e.g., bike share)	• Transit provider stop-level GIS layers • Metro AT facilities GIS layers • Vendor data (e.g. Biketown)
Land Use + Regional Significance	• **2040 Land use designations** • **Supportive land use and zoning**	• In Metro centers and corridors • Transit-supportive land-uses (ex: high density housing, commercial, employment)	• Metro RLIS GIS layers (centers, corridors, land use, etc.) • Census data (pop/emp)
Equity + Community Impact	• **Serves underserved communities** • **Access to key destinations** • **Streetscape/placemaking opportunities**	• Presence of equity populations • Presence of community destinations	• Metro equity GIS layer • Metro key destinations GIS layer • Local plans/Metro RTP
Transit Access	• **Passenger Activity** • **Level of transit service**	• Stop-level activity (net boardings – alightings) • Level of transit service	• Transit provider stop-level ridership • Transit provider data

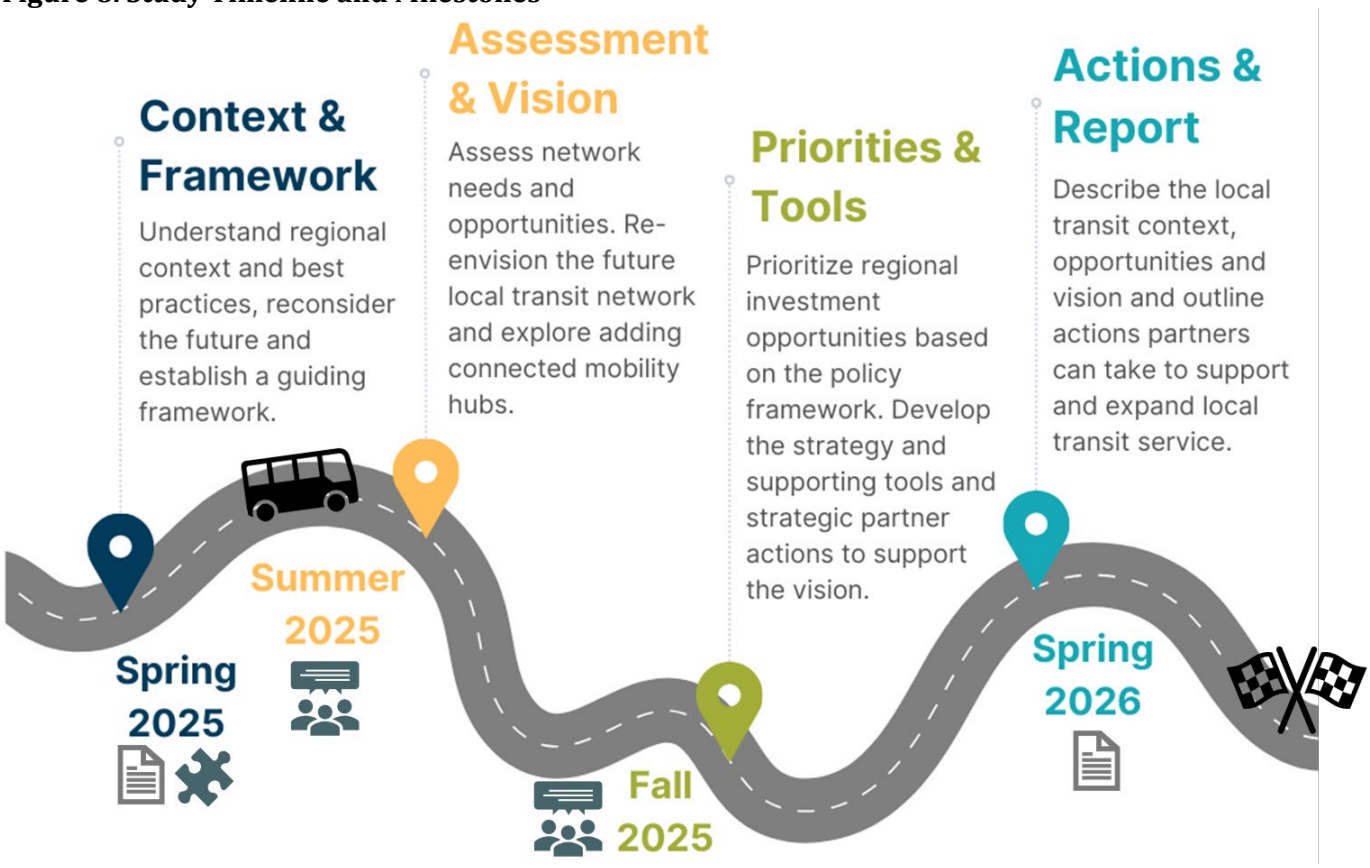
Figure 7. Mobility Hub Assessment Example



Community and Business Engagement

The CCT Study will be updated in four key phases, ending in Spring 2026 (as illustrated in Figure 8 below). The project team will return to the County coordinating committees and Metro advisory committees and Council for input to inform each key study milestone (see Attachment 1 for more detail). The project team plans to return to TPAC in July to discuss the outcomes of both the community connector opportunity area and mobility hub assessments described in the section above. As this study will inform the RTP, the timeline for this work aligns with scoping for the 2028 update (anticipated for late 2025).

Figure 8. Study Timeline and Milestones



Community feedback is incorporated into each of the four major project phases of the CCT Study with the approach differing by phase. The first phase focused on relevant themes from input collected through transportation related engagement over the last eight years will also inform early work for the study (as noted in this summary). The second and third phases include broader outreach in partnership with community-based organizations to reflect additional input. The final phase will apply a direct outreach approach to those who provided feedback during the process to review the draft report and recommendations to confirm input was reflected.

While the summary of prior transit feedback included a lot of information about the types of destination needs that communities and businesses have, there was less information to glean about where those needs are located. With that in mind, Phase 2: Opportunities Assessment and Vision engagement (taking place from Spring to Summer 2025) has focused on the following activities:

- An online survey for community members across the region to provide input.
- Promotion of the survey through the following channels:
    - Metro News, Planning, and Parks and Nature newsletter articles, social media posts

    - Local Partner, Transit Provider, and Transportation Management Association Newsletter cross-posting (e.g., Washington County, C-TRAN)
    - Direct outreach to and both virtual and hard-copy postcard sharing by: community-based organizations, business chambers, employer commute partners, Safe Routes to School Administration Staff, affordable housing sites, County Health Services Offices, regional youth organizations, and tribal offices and resource centers
- In-person tabling events presence (in-person or survey flyering) partnered with Metro and/or other local events to coordinate efforts where possible.
    - 5 community events, 4 tribal events, and 1-2 parks events
- Potential workshop discussions with Portland Tribal Offices to better understand tribal community transit needs.
- Presentations at existing organization standing meetings like Metro's CORE and Quarterly Trails Forum, Clackamas County's Small Transit Providers, and County Coordinating Committees, as well as other meetings of business chambers, advocacy organizations, and local partner councils and commissions by request.

Phase 3: Priorities and Tools (taking place from Summer to Fall 2025) is where the public can have the most influence on the outcomes from this study that will guide investments through the Regional Transportation Plan. With that in mind, this phase is the focus of the engagement plan and the following activities are planned to support that work:

- Contracts with community based organizations will support involving community members from communities of color, youth and people with disabilities, who have been underrepresented in decision making and are more likely to rely on transit.
- Workshop discussions and/or events to better understand tribal community transit needs.
- Focus groups with business community and economic organizations across the region.
- Presentations at existing organization standing meetings like Metro's CORE, Clackamas County's Small Transit Providers, as well as other meetings of business chambers, advocacy organizations, and local partner councils and commissions by request.
- In-person tabling event opportunities partnered with Metro and/or other local events where possible to coordinate efforts based on milestone timing.
- A second online survey for community members across the region to provide input, asking about community priorities.
- Follow-up Metro and partner newsletter articles and direct outreach for participation.

Key Questions to TPAC

- Are there other roles that community connectors should play in increasing access to transit in the region?
- What outcomes would you like to see from the opportunity areas assessment toward best achieving regional goals?
- What should be considered in developing an approach to prioritizing which opportunity areas are invested in first?
- What other feedback from community and/or partners will be important to consider as the project team and Transit Working Group begin to identify and prioritize opportunity areas?

Attachments

1. CCT Study Workplan (Updated)
2. CCT Best Practices Research Technical Memorandum
3. CCT Opportunity Area Assessment Criteria Technical Memorandum
4. CCT Mobility Hub Evaluation Criteria Technical Memorandum

cc: Ted Leybold, Transportation Policy Director
Tom Kloster, Regional Planning Manager
Marne Duke, Senior Regional Planner, Resource Development
Jason Nolin, Associate Transportation Planner, Investment Areas
Andrea Pastor, Senior Development Project Manager, Housing & TOD

COMMUNITY CONNECTOR TRANSIT STUDY

Project Milestone Work Plan: Key Activities and Events

Winter/Spring 2025

Activities: Assess plans and policies, including state and federal changes. Conduct a policy gap analysis and identify potential changes. Develop criteria for identifying first/last mile areas and mobility hubs. Develop approach for assessing opportunities. Consider regional networks. Develop hub toolkit outline.
Outcome: Review policy gaps analysis and discuss policy framework. Feedback on opportunity area and mobility hub criteria and assessment and prioritization approaches.

Date	Who
January 20	**Working Group #3: Policy Framework** • Best practices findings • Policy gap analysis • Policy/transit vision refinements
February 26	**Working Group #4: Network Role & Opportunities** • Updated transit vision • Opportunity area criteria • Opportunity area assessment approach
April 1	**Metro Council (work session)**
April 2	**Working Group #5: Mobility Hubs and Criteria** • Mobility hub criteria update and assessment approach • Mobility hub toolkit • Opportunity area assessment approach update
April 2	East Multnomah County Transportation Committee TAC
April 3	Clackamas County Coordinating Committee TAC
April 3	Washington County Coordinating Committee TAC
April 4	**Transportation Policy Alternatives Committee (TPAC)**
April 14	Washington County Coordinating Committee (policy)
April 14	East Multnomah County Transportation Committee (policy)
April 16	**Metro Technical Advisory Committee (MTAC)**
April 17	**Joint Policy Advisory Committee on Transportation (JPACT)**
April 23	**Metro Policy Advisory Committee (MPAC)**

<u>January-May</u>
Provide a guiding framework for addressing policy gaps to drive investment to meet regional goals.
Align with regional & local plans & priorities.
Ensure assessment criteria reflect regional goals and align with regional needs.
	• <u>Deliverables</u>
	  ○ Best practices summaries and policy framework technical memo
	  ○ Opportunity area and mobility hub criteria and approach technical memos
	  ○ Engagement summaries
	• <u>Project webpage</u>
	  ○ Survey – pins on inaccessible destinations
	  ○ *Video (in development) – community needs and input study influence*
	• <u>Community committee meetings/agency and provider outreach</u>
	  ○ What lessons have we learned? What could we learn from best practices?
	  ○ What role should community connectors play in the region?
	  ○ Where are there existing gaps and current challenges or opportunities?

Summer 2025

Activities: Identify and evaluate first/last mile and mobility hub opportunity areas. Refine the local network vision map. Create the mobility hub toolkit. Develop the prioritization approach. Consider 2028 RTP.

Outcome: Review and input on the assessment results and mobility hub toolkit. Discuss priorities approach.

Date	Who
May TBD	**Working Group Office Hours**
Late May TBD	**Opportunity Area Partner Workshops (by County)** • Opportunity assessment outcomes • Mobility hub assessment outcomes
Mid-June TBD	**Working Group #6: Network Vision** • Debrief workshops • Opportunity assessment outcomes • Mobility hub assessment outcomes • Prioritization approach
Mid-June TBD	**Intercity Transit Providers Meetings**
July 9 (tentative)	*East Multnomah County Transportation Committee TAC*
July 10 (tentative)	*Clackamas County Coordinating Committee TAC*
July 10 (tentative)	*Washington County Coordinating Committee TAC*
July 11	**Transportation Policy Alternatives Committee (TPAC)**
July 16	**Metro Technical Advisory Committee (MTAC)**

June-August
 	
Engage partners to shape the network vision. Shared understanding of the opportunity areas for local transit and mobility hub connections.
 	
Reflect regional and community needs in the mobility hub toolkit.
 	
Align prioritization approach with desired regional outcomes and local priorities.
	• Deliverables
	  ○ First/last mile and mobility hub assessment outcome technical memos
	  ○ Local transit network vision map
	  ○ Mobility hub toolkit
	  ○ Engagement summaries
	• Stakeholder Meetings/Interviews and Focus Groups/Community and Business Events
	  ○ How can the vision capture the specific needs of communities in the region?
	  ○ Are there any needs we missed?
	  ○ What is most important to consider when identifying priorities?

Fall/Late 2025

Activities: Identify local network priorities. Consider priorities as part of the regional system and performance. Develop a checklist for making local land use plans more transit-supportive. Identify strategic recommendations for local transit serving parks. Explore and document governance and funding strategies.
Outcome: Review network priorities and consider investment strategies. Discuss recommendations and tools.

Date	Who
Early/Mid-September TBD	**Working Group #7: Tools Part 1 & Priorities** • Priorities • Transit-supportive land use checklist • Introduce approach to parks transit development strategy • Governance preview
October 1 (tentative)	*East Multnomah County Transportation Committee TAC*
October 2 (tentative)	*Clackamas County Coordinating Committee TAC*
October 2 (tentative)	*Washington County Coordinating Committee TAC*
October 3	**Transportation Policy Alternatives Committee (TPAC)**
October 13 (tentative)	*East Multnomah County Transportation Committee (policy)*
October 13 (tentative)	*Washington County Coordinating Committee (policy)*
October 14	**Metro Council (work session)**
October 15 (tentative)	*Clackamas County C-4 subcommittee (policy)*
October 15	**Metro Technical Advisory Committee (MTAC)**
October 16	**Joint Policy Advisory Committee on Transportation (JPACT)**
October 22	**Metro Policy Advisory Committee (MPAC)**
Late October TBD	**Working Group #8: Tools Part 2 & Recommendations** • Recommendations • Review draft governance approach • Introduce subarea strategies • Review parks transit development strategy

October-November
Engage partners to align priorities and reflect community needs as part of a shared regional strategy. Create guidance for investments in the 2028 RTP.
 	
Reflect user-feedback in tools and strategies. Collaboratively discuss governance approaches.
 	
Shared understanding in next steps for a regional approach to supporting local transit.
	• Deliverables
	  ○ Prioritization map and technical memo
	  ○ Transit-supportive land use plan checklist
	  ○ Recommendations list/matrix
	  ○ Governance strategy
	  ○ Parks development strategy
	  ○ Report outline
	  ○ Engagement summaries
	• Project webpage tab
	  ○ Interactive vision storymap with survey
	• Stakeholder Meetings/Interviews and Focus Groups/Community and Business Events
	  ○ Are these the right investment priorities for the region?
	  ○ Will these priorities help meet our equity, economy and climate goals?
	  ○ What should we consider to set us up to implement the Vision?

Winter/Spring 2026

Activities: Co-create subarea strategies. Develop and refine regional plan and policy update recommendations. Compile technical and engagement information. Prepare study engagement summary. Draft study report. Revise report to incorporate feedback and prepare final report.

Outcome: Feedback on the subarea strategies and draft report. Acceptance of final report by committees**.**

Date	Who
Early January TBD	**Working Group #9: Subarea Strategies & Report Outline** • Subarea strategies review • Discuss plan and policy update recommendations • Report outline • Wrap-up discussion on other topics
Late January/early February TBD	**Working Group #10: Draft Report & Celebration** • Wrap-up study recommendations • Draft report review • 2028 RTP look ahead • Celebrate!
Late February	Transit Provider Workshops (Assessment approach)
March 4 (tentative)	*East Multnomah County Transportation Committee TAC*
March 5 (tentative)	*Clackamas County Coordinating Committee TAC*
March 5 (tentative)	*Washington County Coordinating Committee TAC*
March 6	***Transportation Policy Alternatives Committee (TPAC)***
March 11	***Metro Technical Advisory Committee (MTAC)***
March 16 (tentative)	*East Multnomah County Transportation Committee (policy)*
March 16 (tentative)	*Washington County Coordinating Committee (policy)*
March 17	***Metro Council (work session)***
March 18 (tentative)	*Clackamas County C-4 subcommittee (policy)*
March 19	***Joint Policy Advisory Committee on Transportation (JPACT)***
March 25	***Metro Policy Advisory Committee (MPAC)***
Report Acceptance	
May 1	**TPAC recommendation to JPACT**
May 13	**MTAC recommendation to MPAC**
May 21	**JPACT recommendation to Metro Council**
May 27	**MPAC recommendation to Metro Council**
May 28	**Metro Council considers action on MPAC and JPACT recommendations**

January-May
 	
Co-create subarea strategies guiding local transit development.
 	
Reflect partner feedback on the report and recommendations.
 	
Shared understanding of regional strategy for local transit.
	• Deliverables
	  ○ Subarea strategies workbooks
	  ○ Plan and policy recommendations technical memo
	  ○ Report outline
	  ○ Draft and final reports and tools
	  ○ Study compiled engagement summary report
	• Project webpage
	  ○ *Report and executive summary*
	  ○ *Fact Sheet #6: What is the regional vision for First/Last Mile Transit?*
	  ○ *Fact Sheet #7: CCT Study Takeaways*
	• Email invitation to review to interested parties

Community Connector Transit Study: DRAFT Policy Review and Best Practices

Prepared for
Oregon Metro

Metro

January 2025

Parametrix

NELSON NYGAARD

Policy Review and Best Practices

Prepared for

Oregon Metro
600 NE Grand Avenue
Portland, OR 97232-2736

Prepared by

Parametrix
5 SE Martin Luther King Jr. Boulevard, Suite 400
Portland, OR 97214
T. 503.233.2400 F. 1.206.649.6353
www.parametrix.com

January 2025 | 274-1919-051

Citation

Parametrix. 2025. Policy Review and Best Practices. Prepared for Oregon Metro by Parametrix, Portland, Oregon. January 2025.

Contents

FIGURES

Contents (continued)

TABLES

APPENDICES

Acronyms and Abbreviations

ADA	Americans with Disabilities Act
C-TRAN	Clark County Public Transit Benefit Area Authority
ECO	Employee Commute Options
HCT	high capacity transit
KC Metro	King County Metro
LAWA	Los Angeles World Airports
LAX	Los Angeles International Airport
Metro	Oregon Metro
NEMT	nonemergency medical transportation
ODOT	Oregon Department of Transportation
PBOT	Portland Bureau of Transportation
PSTA	Pinellas Suncoast Transit Authority
TD	transportation disadvantaged
TDM	transportation demand management
TMA	transportation management agency
TMO	transportation management organization
TNC	transportation network company
UTA	Utah Transit Authority
WTA	Westside Transportation Alliance

Executive Summary

This report reviews potential "community connector" transit solutions that may be suitable to meet the needs of people traveling in or between areas that are not effectively served by traditional fixed-route transit. This report describes a review of best practices and findings from peer services, describes existing services within and outside the region, and discusses opportunities and challenges for agencies and organizations providing these community connector services. The services examined are organized by theme based on the market or geography they serve:

- Low-density areas.
- Employment in low-density areas with dispersed workforces or with shift work.
- Regional recreation attractions in rural areas.
- Off-peak times when fixed-route service is not operating.

In this study, the term community connector refers to a generic fixed- or flex-route transit service that provides first- and last-mile connections to the greater Portland regional networks, as well as non-specialized trips (i.e., without special eligibility requirements) within the communities in which it operates.

Key takeaways from this review of regional and national best practices are described below.

- Community connector services can be successful first- and last-mile connections for people looking to travel beyond the fixed-route transit network for a range of different trip types. Success is sometimes defined explicitly—for example, achieving a certain number of trips per revenue hour or a certain cost per trip. However, these are not the only metrics of success, and a focus on the degree to which desired mobility outcomes are reached (quantitatively or qualitatively) for riders is an important measure of success.
- Community connector service can be delivered with different types of fixed-route, flexible, and on-demand services and can be delivered by a range of different organizations, agencies, and government departments.
- Agencies and organizations in the Portland metropolitan area already operate different types of first- and last-mile transit solutions, and these can be implemented through different operating models and partnerships.
- First- and last-mile services may be effective in situations where demand for transit service is lower than would support typical fixed-route transit. There are other conditions as well, such as street connectivity and geometry or land use, that make first- and last-mile services viable (since they typically use smaller vehicles than those used for fixed-route transit). However, there needs to be some level of demand for transit to make financial sense for providers.
- Nontransit programs that support mobility needs, often referred to as transportation options, can complement transit service or be more effective than transit service under certain circumstances.
- Last-mile transit services are sometimes a part of a larger suite of travel demand management tools used by one or multiple partner organizations or agencies. The services and programs that are part of these broader transportation management efforts are often designed to complement one another or serve unique local needs.
- Success for first- and last-mile services in each of these themes described above was not measured against typical fixed-route services. Providers measure the performance against

specific metrics that assess the success of the service compared to similar services, on key indicators, or against mission-based goals such as equitable access.

- Some transit providers operate on-demand services that replace low-performing fixed routes, helping connect an isolated equity population, for example, to the transit network and to low-density areas where fixed-route service would not likely perform well due to the road network and population density.

1. Introduction and Purpose

This report reviews potential transit solutions that may be suitable to meet the needs of people traveling in or between areas that are not effectively served by traditional fixed-route transit. This report describes best practices and findings from peers, including services within and outside the region, and discusses opportunities and challenges for agencies and organizations providing these transit services. The services examined are organized by theme based on the market or geography they serve:

- Low-density areas.
- Employment in low-density areas with dispersed workforces or with shift work.
- Regional recreation attractions in rural areas.
- Off-peak times when fixed-route service is not operating.

In this study, the term "community connector" refers to a generic fixed- or flex-route transit service that provides first- and last-mile connections to the greater regional Portland transit networks, as well as non-specialized trips (i.e., without special eligibility requirements) within the communities in which it operates. The term is not synonymous with the "Community Connectors" branded service operated by Ride Connection in Washington County.

An inventory of transit services operating within the Portland Metro Planning Area provided a starting point to understand existing services and potential travel needs that may not be served through traditional fixed-route transit. The inventory proved challenging for a few key reasons. First, private carriers are harder to keep current with (as compared to public providers that regularly coordinate with Metro regarding federal and state transportation funds), and decisions needed to be made about how exhaustive the list could be. Second, certain types of transportation services are geared toward people who meet eligibility requirements such as working for a specific employer or toward travel to specific facilities, such as a veterans' hospital. Understanding who is currently being served and by which services is an important part of identifying opportunities for expanding the reach of current service. However, **the focus of this study is on community connector services available to the general public without special eligibility requirements**. An online webmap showing previously inventoried services can be found at the following hyperlink:

https://experience.arcgis.com/experience/

For details on the services, see Attachment A, *Community Connector Transit Inventory*.

In the next phase of the project, criteria and thresholds will be developed to identify community connector options that may be appropriate and beneficial in the Portland metropolitan area.

Finally, it is important to note that this report and study are focused narrowly on where and when community connector services may be appropriate, cost-effective, and beneficial in addressing regional mobility gaps. As part of developing this report, the project team reviewed existing regional plans and policies to understand how jurisdictions and agencies have or are planning for community connector services. However, this study is not engaged in planning for the fixed-route light rail and/or bus networks operated by TriMet or SMART; these agencies have separate planning processes such as Forward Together and the Transit Master Plan, respectively, which plan for the future of the regional fixed-route network. This study is complementary to these efforts and focused on opportunities in areas unserved by fixed-route services but potentially supportive of transit solutions.

2. Transit Spectrum

To evaluate whether and what type of community connector service is a viable solution for identified needs, it is important to recognize that there is no one-size-fits-all service solution. Many conditions impact its usefulness for riders and operational efficiency for providers. The 2023 Regional Transportation Plan[1] describes a spectrum of transit services ranging from passenger rail to vanpool and other specialized services that serve different regional travel demands and different travel markets. One aim of this study is to update the existing transit spectrum to more fully reflect the range of non-fixed-route or community connector services that are important to the regional transit network; Figure 1 illustrates the spectrum and adds a new service type between Local Bus and On-Demand/Shuttle: Flex-Route/Shuttle, it also adds Shared Mobility at the far right. The primary focus of this study—community connectors—is highlighted with an orange bar in Figure 1. A final diagram will be developed that reflects the outcomes of this study.

Transportation programs that support the management of travel demand are an important complement to transit services but are outside the scope of this project. Appendix A highlights programs that support community connector transit.

[1] https://www.oregonmetro.gov/regional-transportation-plan

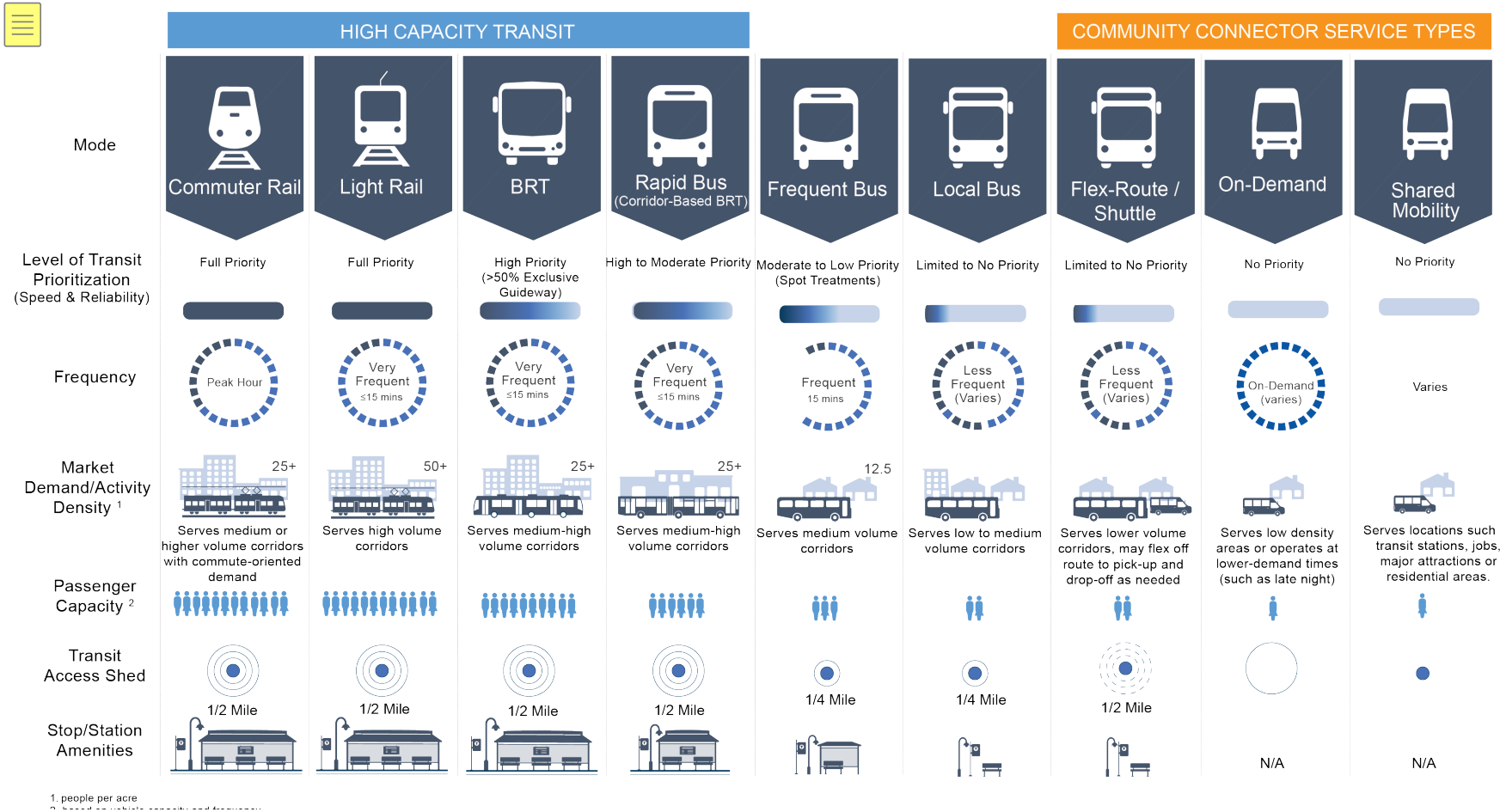
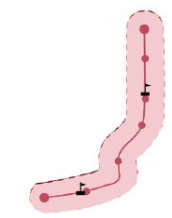


Figure 1. Regional Transit Service Types, Portland Metro 2023, Modified 2025

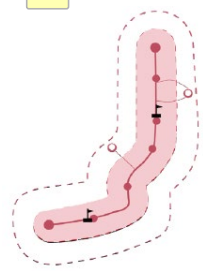
Local Bus: Fixed Route



Transit service that travels along a consistent route and has a published timetable is called a fixed route. Fixed routes serve people traveling to key destinations and have marked bus stops or, depending on agency policy and surrounding land use, may also use flag stops where riders can wave to a driver along the route to be picked up. Fixed-route service offers basic network coverage, often between every 20 and 60 minutes, or limited daily trips.

This type of route is not considered a community connector and therefore is not a focus of this study; however, increases to population density, travel demand, and land use do warrant review of appropriate service. If a route carries more than 10 rides per hour, fixed-route could be considered as a viable option. This type of service also requires a complementary ADA paratransit service to be available to eligible riders, which provides door-to-door service for pickup and drop-off locations within 0.75 miles of the fixed--route network.

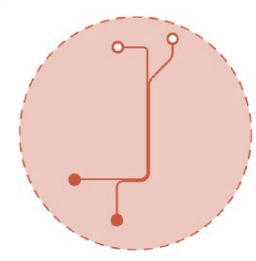
Flex Route/Shuttle[2]



Transit service that travels along a consistent route but that can deviate off the route to provide access to more people is called a flex route. Schedules are published at key bus stops, but people can request in advance that a vehicle deviates for a pickup or drop-off at an agreed-upon location, usually within a specified distance from the main route. A driver will only deviate if a request is made. Deviations must be available to the general public, and the number of deviations on each trip can be limited.

This type of service is considered a community connector and is a focus of this study. Flex routes often use vehicles that can better maneuver on non-arterial streets on which fixed-route services travel. Ridership is generally expected to be lower than 10 riders per hour on average. Operating costs are lower than fixed routes on an hourly basis and are lower annually due to the lower level of service provided compared to a fixed route.

On-Demand

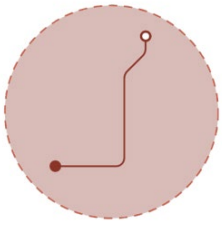


Transit service that operates within a defined zone and where trips are booked in advance by calling, going online, or using a mobile app is known as on-demand service. This type of service is also known as microtransit, demand response, and Dial-A-Ride. There is variation in how it operates, allowing it to be an appropriate solution in areas where fixed- or flex-route services would not be efficient to operate. Pickup and drop-off locations may

[2] FTA classifies these as "Deviated Fixed Route" services.

be at specified locations, from curb to curb, or from door to door.

This type of service is considered a community connector and is a focus of this study. Vehicles used for on-demand service are small enough to maneuver on most roads. Operating costs can be lower than flex-route or fixed-route services if zones are small, rider demand is low, and service hours are limited. Policies that commit to short wait times or services with peak demand times impact the number of drivers and vehicles needed to provide the service.



Shared Mobility is an umbrella term for transportation services that allow users to share a vehicle as a group—such as vanpool—or at different times—such as ride-hailing, car-share, or scooter/bike-share. Shared mobility includes some services that are considered transit and others that are considered transit-supportive services, which are described in Appendix A. *Vanpool* is a form of shared mobility in which a group of passengers shares the use and cost of a vehicle in traveling to and from pre-arranged destinations together, most often to access employment sites but also to access high capacity transit stations. Vanpools are considered transit by the National Transit Database when they are publicly sponsored, open to the public, advertised actively to the public, and ADA accessible. Employer-sponsored vanpools, which are not considered transit due to eligibility requirements, are the focus of Metro's Regional Vanpool Strategy and are excluded from this study. Other forms of shared mobility services may use vans but are not categorized as vanpools because they can be booked to serve a variety of community destinations. *Ride-hailing* is a form of shared mobility that is provided by private companies known as transportation network companies (TNCs). Ride-hailing is not considered transit, but there are opportunities for transit agencies to partner with TNCs to subsidize trips to and from transit stations. These partnerships are described in more detail in Appendix A. *Bike-share, scooter-share,* and *car-share* are all nontransit shared mobility that can be used to support transit ridership and are described in Appendix A.

3. Local Context

3.1 Existing Transit Service

Creating an inventory of transit services operating within the Portland urban growth boundary provided a starting point for understanding travel needs beyond those that can be accomplished through the fixed-route network.

As noted above, the inventory proved challenging due to lack of data on private carriers and the value of accounting for transportation services with highly specialized eligibility requirements. Ultimately, a recommendation for what would remain in and out of the inventory was developed, as shown in Table 1, to acknowledge that an exhaustive list would not further the goals of this project.

Table 1. Transit Services Inventoried

What's In	What's Out
▪ Community connector services generally available to everyone **without** special eligibility requirements; **public** transit options. ▪ Service approaches for improving connections to **high-capacity transit and the fixed-route bus system.** ▪ Service approaches for improving or supplementing connections to **key destinations that are not already addressed by fixed-route transit or other existing services (public or private)**: → Health care facilities → Shopping → Social services → Employment → Education ▪ Approaches for **accessing regional recreation destinations** that are not served by fixed-route transit. ▪ **Supplemental community connector services** such as shuttles that serve shift workers at nontraditional times (e.g., late at night when fixed-route transit is not running). ▪ **Gaps and opportunities relevant to the above, where a public or private service is not filling an existing gap.** ▪ **Limited identification of existing micromobility services in the region as potential models to complement other services or infrastructure (but excluding identification of gaps or opportunities).**	▪ Planning for paratransit service expansion and gaps. ▪ Planning for micromobility services (e.g., scooter-share and bike-share). ▪ Non-emergency medical transportation service planning (offered by coordinated care organizations). ▪ Planning for intercity transit service and gaps. ▪ Planning for fixed routes and high-capacity transit. ▪ Privately funded services (e.g., homeowners associations, hotel shuttles, charter services, and tour services).

One note about shopping services; for many transit agencies, shopper shuttles—which operate between specific higher-density housing areas and specific grocery stores and pharmacies—are usually implemented as a means to reduce paratransit costs for anyone able to use the services (while still making paratransit available to those who need it). Services that are open to the public usually serve a greater variety of destinations and would not be considered shopper shuttles.

3.2 Identifying Transit Gaps

Gaps in the regional transit network were grouped into four key themes:

- Mobility services in low-density areas.
- Access to jobs.
- Access to recreation.
- Time-of-day mobility needs.

These themes arose from a review of regional and local published plans as well as community and stakeholder feedback. Understanding specific travel needs around the region is a critical first step to tailoring effective transit solutions. Jurisdictional plans that document gaps to the existing regional transit network or major destinations or that recommend implementation of community connector-style transit service indicate community and stakeholder outreach and jurisdictional support for transit. Appendix B provides an overview of regional and local plans that identify gaps in transit and summaries of previous outreach efforts.

4. Local and National Case Studies

The project team identified a broad range of regional and national examples of community connector services to consider that address the four themes of transit needs in this region. Table 2 summarizes the agencies and services that are profiled, organized by theme. This section highlights findings from case studies developed for a representative set of services drawn from these examples. The case studies highlight successes and limitations of different providers in operating first- and last-mile services to address mobility needs and challenges similar to those of our region. Appendix C provides additional details on these case studies, including images.

Table 2. List of Providers and Services Considered

Theme	Provider/Agency	Service Name	Service Type
Low-Density	Ride Connection	Community Connectors	Flexible Route
Low-Density	C-TRAN	The Current	On-Demand
Low-Density	CapMetro	Pickup	On-Demand
Low-Density	Multnomah County	ACCESS Shuttle	Fixed-Route
Job Access	City of Inglewood/Los Angeles World Airports	Iride	On-Demand
Job Access	California Vanpool Authority	CalVans Vanpool	Shared Mobility
Job Access	Pace	Feeder Vanpool	Shared Mobility
Recreation Access	King County Metro	Community Van	On-Demand
Recreation Access	King County Metro	Trailhead Direct	Fixed-Route
Time-of-Day Access	Utah Transit Authority	UTA On Demand	On-Demand
Time-of-Day Access	City of Belleville, Ontario, Canada	OWL Service	On-Demand

4.1 Theme 1: Mobility Services in Low-Density Areas

Suburban and rural areas may not have the density of population and jobs or land use patterns to support traditional fixed-route service. Particularly along the urban growth boundary in the Portland metropolitan area, the land use context can change quickly from urban or suburban to rural, producing a challenging environment for fixed-route transit service.

Improving transit options in low-density areas supports Metro's goals of safe and reliable transportation, vibrant communities, economic prosperity, and equity. In recent decades, low-income households have been increasingly priced out of central locations in the metropolitan region due to rising property values and home prices. Additionally, many industries with freight or space needs and with significant numbers of minimum-wage workers—such as package fulfillment centers, manufacturing centers, and call centers—are located in low-density areas. Higher transportation costs to reach dispersed destinations further strain already limited resources for low-income households, and when households with no or limited access to vehicles relocate outside of the fixed-route transit network, jobs can become increasingly difficult to reach, as can community centers, grocery stores, medical centers, and other key destinations.

Case studies of how public agencies and providers have tackled mobility gaps in low-density areas in the region are described below.

4.1.1 Community Connectors, Washington County, Oregon

Provider: Ride Connection, a private nonprofit.

Where it Operates: Various locations within Washington County, Oregon.

Eligibility: Free and open to the public.

Service Purpose: Serves grocery stores, employment hubs, healthcare, community hubs, social services, regional transit network.

Service Delivery Model: Flexible fixed-route shuttles.

Cost to Operate: $80.32 per revenue hour for shuttles. Average cost per ride of $24.85. Cost includes vehicle replacement.

Ride Connection is a private nonprofit based in Portland, Oregon, that provides essential transit services to communities across rural Washington County, Forest Grove, Tualatin, King City, and Hillsboro. The nonprofit service emerged in 1988 from recommendations made by TriMet's Committee on Accessible Transportation to fill service gaps for older adults and people with disabilities who did not meet paratransit eligibility requirements, and it initially relied on volunteer drivers and grant funding to serve diverse populations. In 2009, Ride Connection launched its free community shuttles, now known as Community Connectors, to fill fixed-route network gaps for the general public.

Ride Connection Community Connector shuttles operate as a flexible fixed-route service, allowing passengers to schedule an off-route pickup or drop-off within a half mile of the route. Ride Connection operates eight Community Connector shuttle routes and subsidizes fare-free service between Banks, North Plains, and Portland on the Tillamook Transportation District Route 5 intercity bus to Portland. Ride Connection delivers community shuttle services effectively with a mix of paid drivers, volunteer drivers, and community partnerships to ensure cost-effective and accessible service. The productivity of Ride Connection's community connector shuttles, measured by rides per driver hour, varies by line, with more established shuttles, namely Hillsboro Link and GroveLink, providing four to six rides per driver hour (Figure 1 of Appendix C). Shortly before the onset of the COVID-19 pandemic, Hillsboro Link and GroveLink were providing close to ten rides per driver hour. Productivity and ridership (Figure 2 of Appendix C) dropped sharply during COVID-19, and progress toward pre-COVID ridership numbers has varied for each line. Among three several shuttles that only began operation in Fall 2024, productivity ranges from below one ride per driver hour to over five rides per driver hour.

Ride Connection also offers the Door-to-Door Program, which provides rides for any purpose—including medical appointments, shopping, and social visits—using a mix of paid and volunteer drivers for older adults, people with disabilities, and people living in rural areas in Washington County. In Multnomah County, it operates an on-demand service called Dial-A-Ride that is free for residents that live in or travel to rural areas in the county that are outside of the TriMet service area.

Ride Connection is in the planning phase with Washington County to pilot a new on-demand microtransit service in the next year in a very low-density area of Washington County where pockets of need have been identified. This service will target new and growing areas that TriMet does not yet serve. They have been coordinating with C-TRAN in Vancouver, Washington, to learn from C-TRAN's experiences with on-demand microtransit service.

A key lesson is that collaborative outreach can help boost awareness of service: Ride Connection has successfully partnered and coordinated with counties, school districts, and community-based organizations to reach potential riders.

Challenges and Opportunities

Ride Connection faces challenges meeting the costs of new vehicles with limited funding. The Community Connector program has constraints on how many riders it can serve, and 15% to 20% of service requests for its door-to-door rides for seniors and adults with disabilities (separate from its Community Connector program) are turned down annually due to high demand. Ride Connection has limited service operating on weekends, and it is currently unable to offer late-night service.

Possible opportunities to support these services are additional funding and exploring recreational transit options that can support multi-agency funding. Ride Connection is actively exploring opportunities for growth, including the recently implemented Community Connector in Bethany and a microtransit pilot program aimed at underserved areas such as south Beaverton's Cooper Mountain. By prioritizing equity and community-driven decision-making, Ride Connection offers a model for future transit providers seeking to address unique challenges in smaller, rural, and growing communities.

Ride Connection is in a unique position in the region because it also supports other nonprofits and jurisdictions though programs instead of directly operating service. This includes providing travel training, vehicles, offering technical support, and funding.

4.1.2 The Current, Vancouver, Washington

Provider: Clark County Public Transit Benefit Area Authority.

Where it Operates: Five zones of various sizes within Clark County, Washington.

Eligibility: Open to the public.

Service Purpose: Trips for all purposes for people in areas outside of the fixed-route network. All zones connect to the C-TRAN fixed-route network.

Service Delivery Model: On-demand.

Cost to Operate:

The Current is an on-demand microtransit service offered by the Clark County Public Transit Benefit Area Authority (C-TRAN). It operates vehicles in five zones in Clark County where fixed-route transit may not be cost-effective or meet the needs of local communities. The Current provides point-to-point rides within each service area and connections to major transit networks outside of each service area for $1.25 per ride. Funding for The Current comes from sales tax revenue and general fund allocations. C-TRAN does not use federal funds to operate the service.

C-TRAN evaluates the program based on quantitative metrics such as productivity, ridership, wait time, and percentage of shared trips and on qualitative measures such as customer experience, access and mobility, new riders, trip purpose, and connections to fixed-route services. C-TRAN compares the zones against each other when evaluating service rather than comparing on-demand numbers to fixed-route numbers. The agency is most interested in evaluating destinations, types of trips, and concentrations of trips.

C-TRAN uses the software platform Spare for planning, operations, dispatch, and reservations for a cost of approximately $30,000 annually. The routing of vehicles and reallocation of trips to vehicles is calculated automatically within the application. C-TRAN believes this saves money by operating the service in-house using existing demand-response drivers who are all union-represented C-TRAN employees instead of contracting out the work. The agency can also use vehicles it currently owns, which are all repurposed paratransit vehicles.

Challenges and Opportunities

C-TRAN has not been able to expand to meet demand for The Current service due to the cost of operating the service in its existing zones and the limited number of vehicles available. The agency has encountered some challenges in operating capacity; paratransit and The Current trips are not comingled on the same vehicles, but operators and vehicles may need to preferentially serve paratransit trips when demand is high because paratransit trips cannot be denied under the Americans with Disabilities Act.

C-TRAN has also experienced some difficulties evaluating how equitable the service is. It is challenging to evaluate who is benefiting most from the service and whether that meets equity goals for service. Because the service does not receive federal funds and is therefore not governed by Title VI, the parameters for providing equitable service are not as clear as they are for fixed-route service.

4.1.3 CapMetro Pickup, Austin, Texas

Provider: Capital Metropolitan Transportation Authority.

Where it Operates: Austin, Texas.

Eligibility: Open to the public.

Service Purpose: Provides transit in low-density and equity-focus areas.

Service Delivery Model: On-demand.

Cost to Operate: $29.41 per ride.

CapMetro Pickup is an on-demand, door-to-door microtransit service operating in 12 zones in the Austin, Texas, metropolitan region. Pickup was piloted in 2017 in a redevelopment area that was challenging to serve with fixed-route service. It quickly expanded to other zones that were developed for three main reasons: (1) to replace poorly performing fixed-route service, (2) to fill a gap in the service network, or (3) to provide transportation options in areas that have low-density land use.

CapMetro uses Via software to run its on-demand service, but it handles operations, staffing, and vehicles in-house. Dispatcher operations are shared with MetroAccess, CapMetro's paratransit service; this yields operational efficiencies for both programs. All operators are cross-trained for MetroAccess and for Pickup, and all vehicles are accessible 12-passenger vans. This allows CapMetro to dispatch Pickup vehicles for paratransit-eligible riders who want to book trips on demand rather than scheduling in advance as required for MetroAccess.

CapMetro uses a scoring matrix to identify potential zones for service. The matrix is based on three categories: community characteristics, service quality, and sustainability. For the community characteristics category, points are awarded based on zero-car households, median household income, households in poverty, minority population, population age 65 and older, and presence of essential services (i.e., medical services, grocery stores, schools, shopping centers, and affordable housing). The three metrics used to evaluate service quality are passenger wait time, square

mileage, and ridership. Productivity of a zone is measured by cost-effectiveness and the percentage of rides that are shared, that serve MetroAccess (paratransit) customers, and that serve mobility impaired passengers.

There is a well-defined structure for working with jurisdictional partners. CapMetro has a cost-sharing system in place that divides responsibility for funding based on the percentage of the zone that is in each jurisdiction's boundaries. For example, if 70% of a zone is in CapMetro's service area and 30% of the zone is outside of the service area in the county, CapMetro will cover 70% of costs and the county will cover 30% of costs. For areas that fall outside of CapMetro's service area, CapMetro will plan and operate a Pickup zone if the jurisdiction covers 100% of costs.

Challenges and Opportunities

There is high demand for the CapMetro Pickup service and consistent demand for expanded zones and more vehicles within existing zones. On-demand service is expensive to operate, with an operating cost of $29.41 per ride, and it is inexpensive to ride, with a standard fare of $1.25 per ride and a discounted fare of $0.60 for low-income riders, seniors, riders with disabilities, and active military. Therefore, CapMetro has constraints in terms of staff time and funding for expanded Pickup service. CapMetro is currently facing staffing and funding challenges and has operator shortages for both Pickup and for fixed-route services.

There is very high demand for service during peak hours, which increases wait times for riders. CapMetro is not able to staff in a way that meets demand during peak hours but does not leave many underused drivers outside of peak hours. Split shifts for drivers have not been feasible because they are harder to hire for. People under 18 ride free on Pickup, and while transportation to and from schools drives ridership, it also creates peaks in demand around school bell times. In some cases, the number of vehicles used to meet students makes it difficult for people to get to work or make crucial rail connections into Austin.

The Multnomah County ACCESS Shuttle

The ACCESS Shuttle is operated by a private company through a contract with Multnomah County. It connects an affordable housing development; community and employment destinations such the Portland International Airport, USPS, the IKEA warehouse; and Albertsons in a lower-density area of Northeast Portland. It also offers a connection to the Parkrose Transit Center.

The service is performing well with more than 10 rides per service hour.

Why this matters to Metro: There is no formal process in place between TriMet and local jurisdictional partners or other transit providers on what criteria should help determine whether a route should become part of a regional transit agency's fixed route system. Working with the local partners involved with this specific shuttle could provide insight into creating effective future policy that centers riders and transit providers.

4.1.4 Mobility in Low-Density Areas Key Takeaways

- Community shuttles such as those operated by Ride Connection and Multnomah County work well to complement the fixed-route system by providing additional flexibility to increase transit access. They can help build a transit market and ultimately transition into a fixed route when appropriate thresholds are met, as was the case when Multnomah County–operated shuttles to the Troutdale Reynolds Industrial Park and Swan Island transitioned to TriMet-operated fixed-route bus service.
- On-demand microtransit works well in areas with lower-density land uses because trips are only made when requested rather than running on a fixed schedule.

- A common challenge for on-demand transit services is that they are expensive to operate, and it can be difficult for these services to keep pace with demand with limited funding and staff time. Most on-demand systems operate within specific service areas and tend to perform well when they serve a limited area.
- Some services such as The Current and Utah Transit Authority On-Demand (see Section 4.4) connect to transit facilities outside of these service areas.
- On-demand microtransit can also help meet the needs of people with mobility challenges that may find it harder to access fixed-route transit.

4.2 Theme 2: Access to Jobs

Before the COVID-19 pandemic, most cities focused on transit service that carried commuters to a downtown core, with service frequencies and hours that supported daytime work schedules. The pandemic highlighted the importance of non-downtown travel patterns; since the pandemic, travel demand has become less oriented toward traditional peak travel hours, and service demand during weekends and midday hours has increased as a percentage of trips taken. Portland is no exception; TriMet has been adding frequency to routes with the highest ridership and adding weekend service.

When major employers are located in rural areas or at the regional edges—particularly if they are farther from major roadways—or employees have night shifts or swing shifts, it is harder for transit agencies to provide services to help them get to work. Providing people who do not own a car (or have limited access to a vehicle) with the ability to access jobs is essential for maintaining steady employment.

4.2.1 Iride Inglewood, Inglewood and Lennox, California

Provider: City of Inglewood, partnership with (funded by) Los Angeles World Airports/City of Los Angeles.

Where it Operates: Inglewood and Lennox, California.

Eligibility: Employees of Los Angeles International Airport (LAX) who live in Inglewood or Lennox.

Service Purpose: Provides employee access to a major employer not currently served by transit.

Service Delivery Model: On-demand.

Cost to Operate: $21.63 per ride.

Iride Inglewood is a free on-demand microtransit service that is available for employees of LAX who live in Inglewood or Lennox, across I-405 from the airport. LA Metro's light rail system does not serve LAX directly, with a 2.25-mile gap between the LA Metro Aviation/Century Station and the airport. The Automated People Mover, anticipated to be complete in 2026, will fill this gap in transit service, connecting to the new LAX/Metro Transit Center Station. Construction through 2026 contributes to longer commutes for many LAX employees who drive to work, and Iride provides an alternative for people commuting from Inglewood and Lennox.

Iride service is only available to LAX employees who have signed up for service, and it provides point-to-point trips between LAX and employees' homes at no cost. Riders are required to show the driver their LAX employee badge when they board Iride vans. Iride operates 7 days a week from

4 a.m. to 8 a.m. and from 12:45 p.m. to 4:45 p.m. Iride bookings can be made on the same day between specific pickup and drop-off locations in the service area.

The service is funded by Los Angeles World Airports (LAWA), a department of the City of Los Angeles that operates three airports in the greater Los Angeles area. The program costs $1.2 to $1.3 million per year, and LAWA's funding comes from airline fees and landing fees at LAX. By providing this service free of charge, LAWA and the City of Inglewood have decreased cost-based barriers to stable jobs at LAX.

Employee information is central to LAWA's success in rolling out the Iride program. Because employee information is recorded as part of the badge data and employers report shift times at LAX, LAWA was able to target the service hours and service area for Iride based on airport data. Today Iride provides 700 trips a week, beyond LAWA's initial goals for the service of 600 trips a week. Iride's average cost per ride is $21.63, and the service has an on-time performance of 91.5%. Current riders report being very satisfied with the service.

Challenges and Opportunities

One of the main benefits of the service to riders compared to other on-demand services is that it does not rely on advanced scheduling to book trips. Trips to and from work at LAX can be booked on the same day, which gives employees the flexibility they need for schedule changes. Getting carpooling and vanpooling to work can be challenging for airport workers because shift schedules can change on short notice as flight timetables change.

LAWA has encountered challenges in launching and operating the Iride service. Because of the Iride service hours, drivers must be willing to work split shifts, with two 4-hour working times separated by an extended gap from 8 a.m. to 12:45 p.m. LAWA has had some difficulty hiring drivers that are willing to work a split shift schedule.

LAWA has also run up against constraints in operating the Iride service. The service operates with a fleet of four vans, which limits the number of trips Iride can serve in a day and can lead to longer wait times. Current service hours align with the highest peaks in employee demand throughout the day, which are primarily based on shift hours. Many airport employees (including Transportation Security Administration workers) have shift hours that would require them to commute at times outside of Iride's service hours. The primary limitation on Iride's service hours is the funding available for the service.

Programs to Improve Access to Jobs

Appendix A highlights several types of programs that can improve access to jobs.

Transportation management associations coordinate transportation options for employers and commuters within a specific geographic area. Two examples profiled in Appendix A are operated by LAWA, serving LAX, and the Westside Transportation Alliance, which serves Washington County.

Voucher and pass programs include financial incentives or discounts to help make transportation more affordable. Case studies in Appendix C include the City of Portland's Transportation Wallet program and the Pinellas Suncoast Transit Authority Transportation Disadvantaged Late Shift program.

Reaching LAX employees has also been a challenge since LAX workers are employed at over 167 different companies. To overcome barriers to outreach, the Iride team advertises the service on Altitude, the app for LAX employees that gives employees tools for problem reporting, food and retail discounts, and commute planning. Iride staff also talk to people in person, tabling at major employers and walking through the airport terminals. Iride advertises the service locally in Lennox

and Inglewood using geofenced Facebook and Instagram ads (i.e., ads targeted to people in specific geographies), which also helps reach potential future employees in the area who might think that jobs at LAX would be difficult to access without a car.

4.2.2 CalVans, California

Provider: California Vanpool Authority (CalVans).

Where it Operates: 12 counties in California.

Eligibility: Agricultural vans are only available to agricultural workers. General purpose vanpools are open to all.

Service Purpose: Provides employment access, especially to agricultural workers whose job sites and schedules change throughout the year.

Service Delivery Model: Vans are provided by the agency and are driven by an employee who organizes other employees to ride together.

Cost to Operate: $41.16 per revenue hour, $3.71 per ride.

CalVans is a public agency operating in 12 counties in California that provides 8–15-seater vans for approved drivers to drive themselves and other employees to work. Vanpools are made up of coworkers who travel together in a van that is borrowed or leased for commuting purposes. Vanpools generally have one assigned driver who is responsible for collecting payment from riders. Drivers take responsibility for driving their coworkers in exchange for free or discounted use of the van, thereby eliminating the cost of paying drivers. The majority of CalVans vanpools (635 out of 736) serves agricultural workers. Other users of CalVans vanpools include state employees that must commute long distances or, increasingly, any employers that are required to decrease single-occupancy vehicle commutes by their employees in accordance with the employer-based trip reduction rule in the San Joaquin Valley Air Pollution Control District.

Strengths: Vanpooling is particularly well-suited for agricultural workers. Agricultural workers work in rural areas that have population densities too low to support traditional transit. Moreover, seasonal changes in planting and harvesting mean that work site locations and working hours vary throughout the year. These factors make both fixed-route service and zonal on-demand service unfeasible for most agricultural workers. Additionally, many agricultural workers are migrants, which generates a set of important equity considerations. Some migrant workers have limited English proficiency, and some have limited access to banking options and driver's licenses. App-based transportation services that require banking and transportation services that are

Pace Feeder Vanpool

Pace, the suburban transit agency in the Chicago area, helps fill first- and last-mile gaps in Chicago's fixed-route transit service by providing feeder vanpools that can be either used before a transit trip or after. Vanpools used for first-mile connections can support commutes to many employment destinations. Vanpools that are used for last-mile connections can be used to support reverse commutes from the city to the suburbs.

Why this matters to Metro

Last-mile vanpools can facilitate access to employment sites in low-density areas. Supporting reverse commutes is an important equity consideration as employment opportunities shift outside of urban areas. As last-mile vanpools must be parked overnight and over weekends at transit stations, implementation may require evaluation of parking policies at transit stations.

advertised only in English may therefore be undesirable or unusable by some agricultural workers. The use of vanpools can also avoid some of the barriers associated with the equitable transportation of migrant workers. Vanpools are organized amongst coworkers, decreasing the potential of language barriers. Drivers can collect funds from riders in a variety of ways, so participants are not required to use technology in any way to access the service.

CalVans received an initial start-up grant to purchase vans, but since the initial capital investment, the price that workers pay to become part of the vanpool has funded the program, including maintaining, ensuring, and replacing vans. In 2023, the program had a farebox recovery rate of 96.8%, and the program had no capital expenses. CalVans vanpools traveled 105,110,659 passenger miles across 3,569,288 unlinked passenger trips, for an average trip length of 29.4 miles. CalVans is currently collaborating with Affordable Housing and Sustainable Communities projects to provide electric vans to multifamily affordable housing projects.

Challenges: There have been some challenges in setting up the service. Firstly, there are legal challenges related to operating transportation specifically for agricultural workers. Because the lack of transportation options available to agricultural workers has historically given rise to dangerous travel conditions, such as overcrowded vans and trucks without seatbelts, transportation of agricultural workers is now regulated by the U.S. Department of Labor under the Migrant and Seasonal Worker Protection Act. Implementing a similar service would entail reviewing federal and state regulations on the subject. Secondly, the cost of providing or participating in a vanpool varies based on several factors, including the number of miles traveled, the size of the van, and the number of riders in the van. The large number of variables involved in calculating costs makes it challenging to estimate cost per ride or cost to rider before the program is established.

4.2.3 Access to Jobs Key Takeaways

- On-demand employer services can help expand access to employment centers in areas where there are gaps in transit service and help employees get to work with changing time constraints based on work shifts. This type of service can be effective for large employers or where employers are clustered together in one place or when tailored specifically to employee travel demand and service needs.
- Vanpools are cost-effective and well-suited for jobs that have variable work sites and work hours, such as agricultural work.
- Programmatic solutions such as transportation management associations and voucher/pass programs complement agency-provided services by providing vehicles, coordination, information, and financial incentives.

4.3 Theme 3: Access to Recreation

Natural areas with regional draw are often remote and accessible only by personal vehicle. Transit service that can connect people to parks and other outdoor attractions in areas not already served by traditional fixed-route transit can help Metro achieve safe and reliable transportation, vibrant communities, and equity goals. For major recreational areas that employ many people, transit services can also offer an opportunity for economic prosperity.

From the equity perspective, underserved communities in particular are more likely to face barriers to accessing green spaces in the region due to lower access to personal vehicles. Metro's Connect with Nature project seeks to identify barriers to park access and plan parks that are more welcoming to communities of color. Through a series of community engagements, access to outdoor spaces by public transportation was consistently identified as a top priority.

4.3.1 Trailhead Direct, King County, Washington

Provider: King County Metro, in partnership with King County Parks, Seattle Department of Transportation, and sponsored by Amazon. Other private companies also contribute funding for the Trailhead Direct service, but these funds can only be used for advertising and awareness (not operations).

Where it Operates: King County, Washington.

Eligibility: Open to the public.

Service Purpose: Improve (equity) access to major regional outdoor attractions, reduce congestion.

Service Delivery Model: Fixed-route service.

Cost to Operate: $179 per revenue hour.

Trailhead Direct is a seasonal King County Metro (KC Metro) transit service connecting Seattle and Bellevue to trailheads on two routes. Both routes run on weekends and designated holidays from late May to mid-September. The service uses smaller transit vehicles with a capacity of 14 to 32 people and two bikes that the agency uses for weekday service. Trailhead Direct fares and payment are the same as for other KC Metro bus services, with a cost of $2.75 per ride for adults. Riders can use the KC Metro online trip planner or mobile apps to plan trips and learn about stops, routes, and planned schedules.

The Seattle Department of Transportation funds 50% of Trailhead Direct operating costs through the Seattle Transit Measure, which uses sales tax revenue to fund improved KC Metro service in Seattle's Transportation Benefit District. Private funding from the REI Co-op, Clif Bar, and the Wilderness Society has helped KC Metro market the service and attract new riders. The Trailhead Direct blog reports that passengers used the service for 11,400 hikes in 2023 and for more than 78,500 hikes since the service was launched in 2017.[3] KC Metro's partnerships with public agencies and private companies have been instrumental to success of the Trailhead Direct program.

Trailhead Direct was developed with several equity principles in mind but initially was focused on reducing congestion at trailheads. Since it began the service, KC Metro has placed more emphasis on connecting people to nature. Trailhead Direct stops in Seattle were selected based on the average equity and social justice score of nearby census tracts or by the ability to facilitate transfers from Sound Transit Link light rail stations. Onboard surveys show that approximately 70% of riders do not have access to a personal vehicle.

KC Metro partnered with the Environmental Coalition of South Seattle and the Wilderness Society to expand usage of the Trailhead Direct program amongst the Bhutanese, Chinese, Congolese, Japanese, Kenyan, Korean, Latinx, Vietnamese, and Ghanaian communities. Providing marketing materials in a variety of languages has been crucial for reaching these communities. Onboard surveys revealed that the riders surveyed were more likely to be lower income or people of color than are county residents as a whole.

Challenges and Opportunities

KC Metro has faced challenges in providing the service due to operator shortages with its contracted operator, Hopelink. KC Metro would like to maintain consistent service from year to year, but that

[3] https://trailheaddirect.org/2024/05/14/trailhead-direct-2024-update/

has not been possible. Another challenge for the agency is operating transit vehicles at busy times, particularly near trailhead parking areas where many drivers park illegally and can obstruct bus access. Finding layover space with appropriate facilities is also challenging at trailheads.

Service disruptions and cancellations on Trailhead Direct can be difficult for KC Metro to remedy. Because there are no transit alternatives for Trailhead Direct service and the bus lines operate at approximately 60-minute frequencies, the potential for a missed or cancelled trip on the Trailhead Direct service can be more disruptive and create anxiety for riders.

KC Metro's shift in focus to equitable access to nature and the outdoors, rather than on parking or congestion mitigation at trailheads, has helped the service more successfully meet the needs of local communities. KC Metro sees opportunities for more engagement with tribes in the region to help encourage responsible and respectful recreation. Proactive outreach with the outdoor community, including search and rescue groups, to educate people with limited outdoor experience about safety and outdoor destinations is also something KC Metro noted the agency could have started earlier in launching the service.

4.3.2 Community Van, King County, Washington

Provider: King County Metro.

Where it Operates: King County, Washington.

Eligibility: Open to the public.

Service Purpose: Improve (equity) access to major regional outdoor attractions, reduce congestion.

Service Delivery Model: On-demand.

KC Metro's Community Van is an on-demand rideshare program that allows groups to reserve vans for outings or trip-matches two or more riders traveling to similar destinations with a volunteer driver. The service is available for all kinds of trips but has been specifically marketed for access to recreation. This service is an option for travel at times of day when fixed-route service levels tend to be lower, including late nights and early mornings. Community Van trips can be booked for any time of day if an approved volunteer driver is available.

Community Van rides have the same fare structure as the KC Metro bus system. KC Metro covers the cost of gas, insurance, tolls, and the Washington State Discover Pass to access parking at state-managed parks, natural areas, and public lands.

Rides are scheduled in advance by contacting a KC Metro community transportation coordinator (there are currently 10). Wheelchair-capable vehicles are available upon request, and vans can hold up to 6 or 12 riders depending on the vehicle. The service is geared toward group rides as opposed to individuals who happen to be heading to similar locations at the same time. Trips must be booked at least 2 business days in advance if a driver is needed; a group making a reservation might include a volunteer driver and therefore will not need to reserve a driver. Volunteer drivers can complete the application and training online; it can take up to 2 weeks to complete the process.

Community Van is intended to provide service to destinations within a 2-hour drive from the van's location. It is also promoted as part of the Transit to Nature Program in partnership with King County Parks. This program provides limited funding for organizations in King County that serve the agency's equity priority populations and residents of unincorporated King County for nature outings.

Tompkins Consolidated Area Transit to Trails

TCAT to Trails is an information portal for existing transit service to natural areas in the Ithaca, New York, area. The brochure and website display maps of nearby natural areas and the bus lines that can be used to access those areas. The maps include information about the length and difficulty of trails available at each natural area. Highlighting existing service is an easy, low-cost way to connect more people to the outdoors using public transportation.

Why this matters to Metro

Increasing transit ridership access does not always require providing new service. Maintaining a list of parks that are accessible using transit—and providing instructions on how to do so—is a low-cost method for getting people into nature without a car. This information can be maintained on the Metro website and shared via social media and outreach to community partners.

Opportunities and Challenges

The Community Van is a unique ridesharing model. The program serves group trips with vehicles that KC Metro owns and maintains but with volunteer drivers that are members of the community. This reduces the cost and constraints of operating an on-demand service with professional operators. The Community Van program carries riders on trips for a variety of purposes and is primarily limited by the pool of available Community Van drivers. This operating model allows the Community Van service to reach the broader communities in areas that have lower-density land uses or that may be difficult to access by fixed-route transit services.

4.3.3 Access to Recreation Key Takeaways

- Transit services that provide access to specific recreation sites on set schedules help connect people who do not own a car or do not drive to recreation destinations that are beyond the reach of the transit network. These services work well when connected to high-density population centers with good transit access (enabling transfers from the regional transit network). Selecting stops in areas with equity priority populations directly serves people that may not otherwise have access to outdoor destinations. Operating these services on weekends or seasonally makes use of vehicles that transit agencies already own and maintain.
- Although operating costs for recreational services may be high on a per-passenger basis, they serve other goals and objectives.
- Providing vehicles that are operated by volunteer drivers or organizations, such as through KC Metro Community Van, can address specific community needs and serve a low volume of riders for trips to a broad range of recreation sites (or other common destinations). Volunteer drivers help reduce the operating cost of the program and addresses challenges with driver availability, but this also limits the availability of vans and trip times for potential riders in eligible communities.

4.4 Theme 4: Time-of-Day Mobility Needs

The transit spectrum (see Figure 1) illustrates how different modes can work in different operating circumstances to best meet local transit needs. There is demand for work and non-work trips outside of the peak hours. Late night and early morning are particularly challenging times for agencies to serve with traditional fixed-route transit because of lower and dispersed demand.

People who work night shifts or swing shifts have limited transit options, even if they live and work in urban areas. In areas with lower-density land uses, jobs can be difficult to access for people without cars. People with lower incomes or people of color are more likely to work swing and night shifts,[4] and addressing this imbalance can help Oregon Metro achieve its goals of equity, safe and reliable transportation, and economic prosperity. Workers in rural areas are also more likely to work nontraditional shifts.[5]

Transit service designed around typical workday hours can also limit opportunities to serve non-work trips. Most people have some travel needs that fall outside of typical working hours or need to travel on weekends when transit tends to operate at much lower service levels.

4.4.1 UTA On Demand, Salt Lake City, Utah

Provider: Utah Transit Authority.

Where it Operates: Four zones in and around Salt Lake City, Utah.

Eligibility: Open to the public.

[4] Ferguson, J. M., Bradshaw, P. T., Eisen, E. A., Rehkopf, D., Cullen, M. R., & Costello, S. (2023). Distribution of working hour characteristics by race, age, gender, and shift schedule among U.S. manufacturing workers. *Chronobiology international*, *40*(3), 310–323. https://doi.org/10.1080/07420528.2023.2168200

[5] Saenz, R. (2009). Rural Workers More Likely to Work Nontraditional Shifts. *Carsey Institute (Issue Brief No. 5)*. https://scholars.unh.edu/cgi/viewcontent.cgi?article=1073&context=carsey

Service Purpose: Provide access to low-density areas and/or at lower-demand times.

Service Delivery Model: On-demand.

Cost to Operate: $20 per ride.

Utah Transit Authority (UTA) On Demand is an on-demand microtransit service in the Salt Lake City area that connects low-density communities to transportation services and destinations. UTA On Demand covers 184 square miles around the Salt Lake City metropolitan area. Rides are completed in minivans; riders using mobility devices can request an accessible van through their profile in the UTA On Demand app. UTA On Demand serves 2,000 point-to-point trips per day at a cost of approximately $20 per ride, or $7.48 per revenue mile of operation. Users pay a $2.50 fare, and UTA On Demand serves on average 2.7 trips per hour throughout the day.

On Demand service is one variety of UTA's Innovative Mobility Solution, which are intended to serve geographic areas and/or times of the day that do not have enough transit demand for fixed-route service. In addition to on-demand services, these zones can include bike-share, autonomous shuttles on a fixed guideway, and partnerships with TNCs (such as Lyft or Uber). The service connects riders to destinations within the zones and to fixed-route bus or rail transit options.

UTA has four UTA On Demand zones, two of which have late-night service, with a service span from 4 a.m. to 12:15 a.m. on weekdays and 6 a.m. to 1:15 a.m. on Saturdays, which extends beyond the hours of UTA fixed-route service.

UTA evaluates the effectiveness of the program based on several key performance measures including ridership growth, on-time performance, service quality, passengers served per hour, and cost per ride. UTA also tracks other indicators in its On Demand zones including share of trips made by Uber or Lyft, the percentage of shared rides, and the community characteristics of locations served including priority equity populations.

Belleville On-Demand Nighttime Service

In 2020, Belleville, Ontario, Canada, replaced its existing nighttime bus service with on-demand service. Riders use an app to request rides on the bus from and to any bus stop within the nighttime system. Belleville uses Pantonium, an artificially intelligent routing software, to take requested rides and create the most efficient route for the bus. In the first month of the program, nighttime on-demand ridership grew by 300% compared to the previous nighttime bus service, and analysis of the service found that users had lower incomes and were more likely to not own a car than the Belleville residents as a whole.

Why this matters to Metro

The success of this program demonstrates how technological advances (in this case, artificial-intelligence routing software) can use algorithms to efficiently assign vehicles, which can reduce wait times and serve more people.

Opportunities and Challenges

Prior to launching the On Demand service, UTA interviewed peer agencies that have active on-demand microtransit programs and compiled the following key findings regarding the factors that lead to successful services.

- Smaller service areas are important for reliability and adaptability of the service and allow the agency to more easily scale service as needed.

- Partnerships with TNCs such as Uber and Lyft along with private taxis and shuttles lower operating costs for the agency and increase customer satisfaction.
- Establishing clear procedures is important for creating or modifying service hours.
- Linking on-demand microtransit to fixed-route service is effective in increasing the transit mode share.

UTA's proposed 2025 budget proposes $16.8 million for microtransit. The agency's long-range Transit Plan[6] identifies additional Innovative Mobility Zones that it hopes to put in place by 2050.

4.4.2 Time-of-Day Mobility Needs Key Takeaways

- On-demand microtransit can fill gaps in transit service at specific lower-demand times (such as late at night) when it is less cost-effective to operate fixed-route service. This can help provide customers with more travel options and shorter travel times during off-peak hours.
- Many on-demand services have the same cost per passenger as on prior fixed routes operating in lower-density area; the UTA On Demand service has more cost-effectively served lower-density zones where it replaced fixed-route service. These services generally come with moderate to high operations costs per trip but can be an attractive alternative to people who would otherwise rely on rideshare.

4.5 Case Study Takeaways

The on-demand and flex-route service examples highlighted in these case studies illustrate how these types of services could expand the range of transit options available in this region to better meet travel needs. These services can connect people and destinations to existing regional transit service and extend the reach of the transit network to areas—and at times and on days—that may not be ideal for fixed-route service. These services provide opportunities for people without a car to access employment or recreation where there are limited transit options or geographic or temporal gaps in transit service coverage.

Effective services can be operated by organizations and agencies including transit agencies, cities, nonprofits, and private providers. Partnerships with both public entities and private corporations and organizations can help provide information on potential riders, build awareness and promote the service, and provide funding to help balance the costs of service. Transit providers can also stretch funding to apply delivery models that are less expensive per passenger and that provide better service to passengers where fixed-route transit is not cost-effective. Transit agencies have also found cost savings in repurposing vehicles they currently own or using their existing fleets in periods when service levels are lower.

Providers use a wide array of metrics to track the performance of these services, but they often include ridership and cost-effectiveness (e.g., cost per trip). Success is generally not measured relative to existing fixed-route systems, though some services may be compared to previously operating fixed-route service. Other goals including service coverage or reaching equity populations can be more of a focus for these services. Prioritizing equity through outreach and local partnerships or through locating transit stops and service areas in equity priority areas tended to increase ridership on these services.

[6] UTA Moves 2050 (2023). https://www.rideuta.com/-/media/Files/Current-Projects/Long-Range/UTA_Moves_2050_Nov2024.pdf

The agencies and organizations that operate fixed-route, flexible, or on-demand services to meet community needs that fit under the four key themes faced common challenges. Driver shortages and funding constraints were the most common limitations for providers in operating these services. Demand for these services can outpace available fleet and staff resources, and agencies may need to limit service hours to balance the cost of service.

Flexible and on-demand services can be less costly than fixed-route transit if they are replacing low productivity routes. However, if demand for on-demand service is high, the wait times for these services can become longer or providers may need to use additional vehicles or staff, which increases the cost of the service. Ridership demand for on-demand services often outpaced the level or service provided. Additional funding could help providers extend the span of service and supplement staff and vehicle fleet for the highest level of service.

Community connectors are not always the right solution for gaps in access to the transit network. In some cases, nontransit shared mobility and transit-supportive programs are enough to fill access gaps. These programs can work together with transit services to improve first- and last-mile connections. Agencies can also help create policies and programs that incentivize non-single-occupancy-vehicle commuting and work with employers to expand transit options and incentives for their workers.

5. Next Steps

Findings from this study will inform potential transit solutions to help expand access for people traveling to, from, or within areas that may not be best served by traditional fixed-route transit in the Portland Metro region. In future phases of work, appropriate community connector solutions for gaps in the regional transportation network will be identified and evaluated.

Appendix A

Services and Programs that Support First- and Last-Mile Travel Needs

SERVICES AND PROGRAMS THAT SUPPORT FIRST- AND LAST-MILE TRAVEL NEEDS

Providing first- and last-mile community connector services like the case studies profiled in the report is not the only way to encourage transit ridership and fill mobility gaps. Nontransit shared mobility service and transit-supportive programs can improve access to transit or provide alternative forms of mobility when transit is not the right solution. Below are examples of shared mobility services that are not considered transit and programs that enhance and encourage transit ridership.

Nontransit Shared Mobility Services

Shared Mobility is a transportation service that allows users to share the same vehicle as a group or at different times. Examples of transit shared mobility are described in Section 2, Transit Spectrum. Examples of nontransit shared mobility services include the following:

- Micromobility
- Car-share or van-share

Both of these can be used either to access transit or as an alternative to transit.

Micromobility

Micromobility services like bike-share and scooter-share allow people to travel relatively short distances faster than walking and without a wait. Depending on where micromobility stations are located, they can either support transit trips or replace them. Co-locating micromobility stations at transit hubs to create mobility hubs can help fill first-mile and last-mile gaps in access to transit services. The quality of the active transportation network and other safety considerations like the availability of helmets will impact whether someone feels comfortable using micromobility services.

Lime Scooter Share

Lime is a scooter-share program operated by Lyft, a private company. People over the age of 18 can access scooters by registering for an account. Though it is a service accessible through a mobile app, using Lime does not require having a smart phone or credit card—riders can call a phone number to unlock scooters and can pay with cash at certain locations. Lime is working on many projects to improve the usability of scooters for people with disabilities and low-income populations. Through the Lime Assist program, people with disabilities can have an adapted vehicle delivered to the user's home for use for 24 hours for free. Adapted vehicles include scooters with seats and three-wheel scooters. Lime Access is Lime's discount-rate program. Eligibility for the program is determined by participation in income-restricted programs such as Medicaid and the Children's Health Insurance Program; this streamlines the process of determining eligibility.

Lime has partnered with the Portland-based nonprofit, suma, to overcome the digital divide for frontline communities and to identify why communities who are eligible for Lime Access are not using the service. Suma found that the communities it works with are often hesitant to share bank or location data with large corporations. To overcome this, users can access scooters through the suma app, which is more trusted by community members. The suma app consolidates opportunities for low-income community members to save money on goods and services onto one platform.

Key Takeaways

- Improving access to transit includes consideration of how people access transit.
- Micromobility can either complement or replace transit trips depending on the location of scooter and bike docks and the quality of the transit and active transportation networks.
- Sidewalk, street, intersection, and curb infrastructure can play a role in whether people feel safe using micromobility transportation options such as scooters, regardless of ability.
- Partnerships with community-based organizations can help uncover the barriers to access and identify tailored solutions for specific community groups that Metro hopes to reach.

Car-Share or Van-Share

Car-share services allow people to rent a vehicle for short periods of time. Some programs require the vehicle to be returned to the same location as the pickup, such as Zipcar, while others allow users to return their cars anywhere within a service area, such as HOURCAR. Car-share can be used as an alternative to a transit trip or to access transit, particularly if policies allow for a different drop-off location.

Zipcar

Zipcar is a car-share offering hourly service operating in the Portland region and across the country. Zipcar provides a variety of memberships, including business and student memberships.

This station-based service generally works well in environments that have existing transit and active transportation facilities and infrequently require personal vehicles since the user is responsible for payment from the time they start their trip to the time they end the trip in the same location. They do not work well in very rural areas without other transportation options.

Zipcar's goal is to reduce the need for car ownership, which in 2024 was estimated to cost $12,297 a year on average by AAA. Reducing personal vehicle ownership also increases the amount of urban space that can be used for other purposes. Zipcar has the goal of electrifying its fleet by 2030 to increase the environmental health benefits of the service.

HOURCAR

HOURCAR is a hub-based, nonprofit car-share service in Minneapolis, Saint Paul, and the metro area for trips between 30 minutes and 3 days. It provides a variety of membership options including reduced-price programs for income-verified members and for university students, faculty, and staff. HOURCAR memberships include membership in Evie Carshare, a free-floating all-electric car-share service. All HOURCAR vehicles include Minnesota State Park Passes to encourage their use in state natural areas.

Dockless car-share can facilitate first-mile and last-mile connections to transit stations because users can drive to transit stations and leave the vehicle there without paying for it during the day. These can be used in areas that transition quickly from urban to suburban or urban to rural because it allows people in lower-density areas to access fixed-route transit in more urbanized areas.

The program is funded by grants, donor giving, members, and visitors.

Key Takeaways

- Car-share services can reduce the need for personal vehicle ownership and can provide mobility options outside of transit service hours.
- The form of car-share service (station-based or free-floating) impacts how car-share is used; station-based services promote community-based or home-destination-home trips, whereas free-floating services support trips to work, school, or transit stations.
- Car-share services can support outdoor access in areas that are not reachable by public transit, especially through partnerships that provide passes to outdoor areas.
- Services provided by nonprofit organizations, such as HOURCAR, require grant funding to offer affordable transportation options.
- Car-share services are not a solution for people who cannot or do not drive, and the availability and geographic spread of accessible vehicles may be limited.

Transit-Supportive Programs

Transit-supportive programs encourage the use of existing mobility services and include the following:

- Transportation Management Associations (TMAs) and Transportation Management Organizations (TMOs).
- Mobility wallets and other voucher programs.

Transportation Management Associations and Transportation Management Organizations

TMAs and TMOs coordinate transportation options for employers and commuters within a certain geographic range. In regions with requirements regarding commute mode shares, they help employers meet these regulations. TMAs coordinate transportation options in a variety of locations including low-density areas. Some provide transit as part of their offerings, and some do not. TMAs/TMOs can coordinate transportation options for a region (see Westside Transportation Alliance example) or for a major employer (see the commuteLAX example).

Westside Transportation Alliance

The Westside Transportation Alliance (WTA) is a 501(c)(6) nonprofit TMA that partners with employers and public agencies to improve commute options for employees and employers in Washington County, Oregon. Established in 1997 as part of the City of Beaverton, WTA now operates independently, providing businesses with customized workplace services and programs encouraging employees to commute using transit, carpooling, vanpooling, biking, walking, or teleworking. By promoting sustainable transportation options, WTA supports stronger businesses and healthier communities, aligning with its vision to create an engaged alliance of partners and increase the use of transportation alternatives.

WTA's tiered membership structure makes its services accessible to organizations of all sizes. It offers employee commute surveys, toolkits, and incentive programs tailored to employer needs. Its ability to secure funding from grants, including the Metro Core Partner Grant and smaller project-based grants, provides financial stability and facilitates innovative programming. Programs such as e-bike loans and team-based active transportation challenges promote camaraderie among

employees. WTA's expertise in conducting Employee Commute Options surveys helps employers identify transit needs, adding value to membership. WTA partnerships with public agencies and delivery of cost-effective, impactful services strengthen its reputation as a trusted resource for transportation solutions.

The WTA faces challenges in raising awareness and engagement among businesses. Many employers are unaware of the available programs or find it difficult to assign internal responsibility for implementing them. Additionally, transportation limitations in Washington County, such as infrequent transit service and long transfer times, pose barriers to the wider adoption of nondriving commutes. Marketing and promoting lesser-known transit services and employer-sponsored shuttles also present difficulties. Nevertheless, WTA continues to advocate for accessible and sustainable transportation options, while addressing the unique needs of the community.

CommuteLAX at Los Angeles World Airports (LAWA)

CommuteLAX is a TMO that was launched in 2021 to address the need for tens of thousands of employees to access the LAX airport. In 2024, there were 40,000 TMO-represented employees and LAWA employees.

The commuter shuttle program Iride, detailed in Section 4.2.1 in the report, is only one of a suite of transportation offerings from commuteLAX. Other programs include vanpool, carpool, subsidized transit passes, and up to two guaranteed rides home per year in cases of emergencies.

LAWA reports that a trip of up to 10 miles is generally appropriate for on-demand service, and more than 10 miles is better suited for vanpools and carpools. Carpooling and vanpooling can be more effective for concessions employees at LAX, who have more stable work hours compared to airline staff such as flight attendants, baggage handlers, and pilots. A challenge to coordinating carpools and vanpools for concessions staff is the inability to communicate across the 167 employers at LAX. To overcome this issue, LAWA is rolling out a new carpool matching service that it will make available to all employees on its app for LAX employees.

Key Takeaways

- Organizations that provide a consolidated source of information on transportation options for employers and employees can more easily maintain accuracy of their inventory of available transportation and direct people to appropriate services.
- TMAs and TMOs are essential for helping employers meet regional and statewide requirements regarding commute shares.
- Some TMOs and TMAs operate service directly, and others only connect employers and employees to existing transportation options.
- For organizations that provide service, providing specialized trips for limited-eligibility riders (such as the LAWA Iride service) is expensive, and this expense limits the scope of available services.
- Providing service directly can effectively compete with single-occupancy-vehicle trips but may also compete with transit. Providing specialized service when or where transit is not operating is most likely to lead to favorable commute share outcomes.

Mobility Wallets and Vouchers

Vouchers are tickets provided by a public agency that are used to access transportation options that would otherwise be prohibitively expensive for lower-income households, options such as taxis or

TNCs such as Uber and Lyft. By partnering with TNCs, transit agencies can subsidize on-demand service at an affordable level without having to provide the service themselves. Pinella Suncoast Transit Authority's Late Shift program is profiled below as an example of a voucher service targeted to off-peak employee access, and its Direct Connect program is included as an example of a voucher program that supports transit ridership.

Mobility wallets provide users with vouchers or passes for a variety of transportation services. Mobility wallets are one type of universal basic mobility strategies, which seek to provide a certain level of mobility to all people, regardless of their income or location. The City of Portland's Transportation Wallet Access for All program is provided as an equity-focused mobility wallet program example.

Transportation-Disadvantaged Late Shift

The Pinellas Suncoast Transit Authority (PSTA) Late Shift program provides vouchers to transportation-disadvantaged (TD) communities—those with an income that is less than 200% of the federal poverty line and that do not having reliable access to a vehicle—and people who work night shifts. Users pay $9 per month to access 25 Uber or taxi rides that can be used only to access work shifts that begin or end between the hours of 10 p.m. and 6 a.m. Late Shift program participants must already be part of the Transportation Disadvantaged Program, which costs $11 per month for a discounted bus pass.

Because the program is limited to those without reliable vehicle access who work outside of PSTA's service hours, the program allows TNC trips to fill a gap in transit service hours and supports stable employment that would not otherwise be accessible. This program is part of a larger suite of offerings for TD communities, including reduced-fare bus trips and door-to-door service. 90% of the programs funding comes through state TD funds, which are gathered via a $1.50 charge on every vehicle registration or renewal plus additional voluntary donations.

A challenge of providing specialized services with limited eligibility is that verifying that riders are eligible and that their trips are used for the approved purposes during the correct times can be time-consuming and requires origin and destination data to be shared by TNCs. Another consideration when implementing the program is that non-shared rides in TNCs and taxis do not remove single-occupancy vehicles from the region's roads, which precludes some of the congestion and environmental benefits associated with transit and other shared-ride services. Balancing equitable job access and environmental concerns should be carefully considered when pursuing similar services.

In addition to the Late Shift voucher program, PSTA also offers a voucher program intended to facilitate first- and last-mile connections to transit. Riders who begin or end their TNC or taxi trip at one of the 26 Direct Connect locations found at transit stops throughout the county receive a $5 discount on their ride. Riders booking an ADA-accessible ride through wheelchair transport receive a $25 discount on their ride.

The City of Portland's Transportation Wallet Access for All Program

The City of Portland's Transportation Wallet Access for All program provides free transportation options to people and households living on low incomes. These options include transit, e-bike and e-scooter-share, rideshare, and taxis. Eligibility for the program is determined based on income (verified through membership in an income-restricted program such as Medicaid or Supplemental Nutrition Assistance Program) and membership in one of 18 community-based organizations that have partnered with the Portland Bureau of Transportation (PBOT) for the program. Individuals can choose between two transportation wallet options—one that provides a 1-year transit pass and

another that includes a mix of transit benefits, Biketown benefits, and a prepaid Visa card for use on rideshares, taxis, and TriMet—based on their travel needs. The program is funded by a surcharge on parking and a grant through the Portland Clean Energy Fund. A 2023 survey distributed by PBOT found that 54% of respondents do not own or have access to a private vehicle, 39% of respondents reported having a disability, and 52% of respondents tried using new transportation modes they had never used before.

The Transportation Wallet Access for All program joins two other transportation wallet programs provided by PBOT. The Transportation Wallet in Parking Districts program is for residents who live in the Central Eastside and Northwest Parking Districts and is intended to manage demand for parking in those areas. The Transportation Wallet New Movers program is limited to residents moving into new multifamily apartment buildings in certain zones.

Key Takeaways

- Voucher programs can support mobility needs in times or areas where transit is not feasible, such as late at night or in very low-density areas, and when demand for service is very low.
- Vouchers can also support transit use by facilitating first- and last-mile connections to transit stations.
- The flexibility of transportation wallets allows jurisdictions to offer voucher packages that make sense for the transportation offerings available.

Appendix B

Documented Gaps in Transit

Regional and Local Plans

The team reviewed existing plans published by Oregon Metro (Metro), counties, cities, and subarea plans led by cities or the Oregon Department of Transportation (ODOT). Transportation system plans or specialized plans for the following cities mention or address key terms such as shuttle, circulator, vanpool, first/last mile, and access gaps:

- Beaverton (2015)
- Damascus (2013)
- Gresham (2013)
- Happy Valley (2021)
- Oregon City (2013)
- Portland (2020)
- Troutdale (2013)
- Tualatin (2013)
- Wilsonville (2013)
- Clackamas County (2013)
- Clark County (2021)
- Multnomah County (2016)
- Washington County (2024)

Local jurisdictions also have other plans that include policies, recommendations or references to similar types of first- and last-mile services. Regional and statewide plans also address potential first- and last-mile flexible and on-demand services have been identified as part of numerous Metro- and ODOT-led planning efforts. Recent efforts include:

- ODOT Historic Columbia River Highway Congestion and Transportation Safety Improvement Plan (2019) and Transit Vision Around the Mountain (2021)
- Clackamas County Clackamas to Columbia Corridor Plan (2020), Transit Development Plan (2021), Sunrise Community Visioning Project (underway) and RideClackamas.org website
- Washington County Countywide Transit Study (2023) and Transit Development Plan (2022)
- TriMet Forward Together (2023) and Forward Together 2.0 (anticipated in 2025), Reimagining Public Safety and Security Plan (2021), Coordinated Transportation Plan for Elderly and People with Disabilities (2020, update underway), Pedestrian Plan (2020), Equity Lens/Index (2020), Red Line MAX Extension Transit-Oriented Development & Station Area Planning (2022)
- City of Hillsboro Sunset Highway Corridor Study (2023)
- City of Portland PBOT Mobility Hub Typology Study (2020), Transit and Equitable Development Assessment (2022) and 2040 Portland Freight Plan (2023)

- SMART Transit Master Plan Update (2023)
- City of Troutdale Destination Strategy (2024)
- SW WA RTC Regional Transportation Plan (2024)
- C-TRAN 2045 (anticipated in 2025)

Metro has many plans that reference opportunities for these services.

Guiding Study and Informing Development

- 2040 Growth Concept
- Mobility Corridors Atlas (2014)
- Strategic Plan to Advance Racial Equity, Diversity and Inclusion and Equity Framework (2016)
- Regional Transit Strategy (2018)
- Southwest Corridor Equitable Development Strategy (2017) and Locally Preferred Alternative (2018)
- Regional Travel Options Strategy (2018)
- Division Transit Locally Preferred Alternative (2019)
- Regional TDM Inventory Needs and Opportunities Assessment (2019)
- Designing Livable Streets and Trails Guide (2020)
- Transportation System Management and Operations Strategy Update (2021)
- Emerging Technology Strategy (2018) and Emerging Transportation Trends Study (2022)
- Transit-Oriented Development Strategic Plan (2022)
- Metro Commute Program Current State Report and Action Plan (2022)
- Regional Transportation Plan and High Capacity Transit Strategy (2023 Update)
- Westside Multimodal Improvements Study (2024)

Coordinated with the Study

- Regional Transportation Demand Management Strategy and Regional Travel Options Strategy Update (2025)
- Tualatin Valley Highway Corridor Study (2026)
- 82nd Avenue Corridor Study (2026)
- Local work, specifically:
  - → TriMet's Forward Together 2.0
  - → Washington County's Transit Development Plan

To Be Potentially Informed by the Study (2026+)

- Regional Transit Strategy Updates
- Regional Transportation Plan updates
- Regional Transportation Functional Plan updates
- Urban Growth Management Functional Plan updates
- Future partner work

Local Feedback on Gaps in Transit Network

Drawing on local outreach efforts from previous plans provided an understanding of key themes for transit services and gaps in existing service. Feedback from transit providers, local agencies, and other groups through the project's Transit Working Group also informed this study. Appendix A summarizes feedback Metro has documented between 2016 and 2024. Using feedback from local stakeholders and past community outreach comments, four key themes were identified as primary gaps that could be addressed by this study. These themes (see Section 4) then informed the case studies and best practices reviewed in the following section.

It is important to note that these themes and gaps pertain to the markets and geographies that are or could be served by community connector services. TriMet, SMART, and local jurisdictions have separate planning efforts that address the future of transit in the region, such as TriMet's Forward Together plan which examines the future fixed-route transit network. Therefore, the gaps and themes described in this report are narrowly focused on community connector transit and not on planning for the fixed-route network itself.

Appendix C

Case Studies

Appendix C: Case Studies

Case Study Themes

- Mobility in low-density areas
- Employee access
- Transportation during off-peak times
- Access to parks and outdoor areas

The Current

Who runs it? C-TRAN

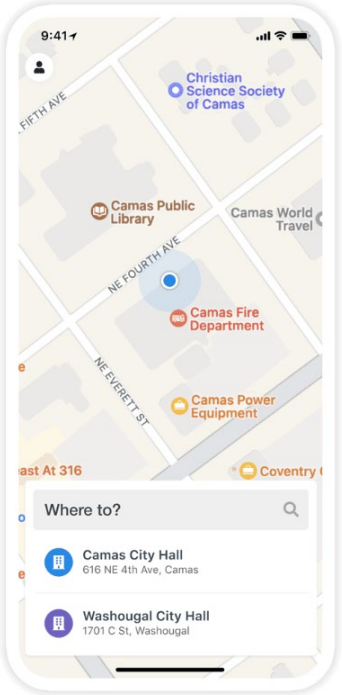
Who rides it? Anyone within five zones

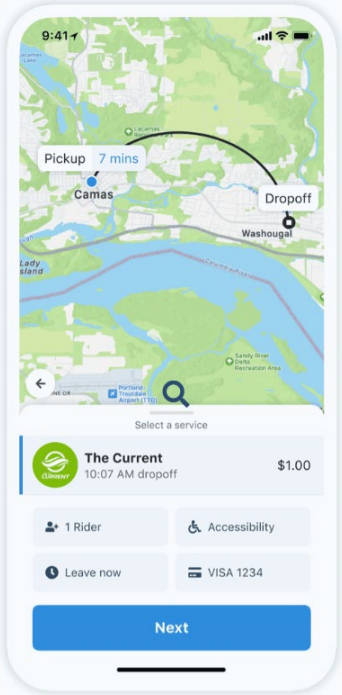
Who pays for it? Sales tax + $1.25 fare

How is it equitable? The service expands access to key employment destinations

The Current

What's working well	Things Metro Region should consider
Fully accessible vans allow interoperability with paratransit service	On-demand service can bolster mobility for people with disabilities as well as the general public
Using the Spare software but otherwise providing the service in house saves operating expenses	Ability to successfully operate in house demands on scale of the service provided: fewer, smaller zones are easier to manage in house





The Current

Challenges of providing this service	Things Metro Region should consider
Cannot meet demand for expansion of the service due to operating expenses	Create clear system for deciding when/where a zone is created so that resources are used most efficiently
Can be challenging to complete microtransit rides because drivers prioritize completing paratransit trips	Overlap between paratransit and general on-demand service can lead to operational efficiencies but can also degrade on-demand service due to prioritization of paratransit trips

The Current

Key Performance Indicators

Cost to user	Operating expense per revenue hour	Operating cost per ride	Boardings per hour	Average wait time	Percent of rides that are shared
$1.25 ($0.60 reduced fare)			3.3–3.5	14 minutes	70%

CapMetro Pickup

Who runs it? Public agency, operated by Via

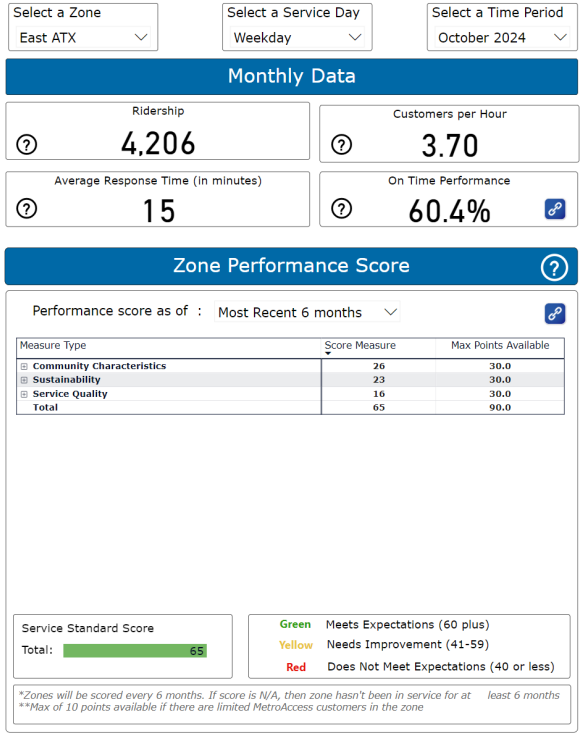
Who rides it? Anyone within its 11 service zones

Who pays for it? Property taxes & $1.25 fare per ride

How is it equitable? Serves areas not well-served by fixed-route transit. All vehicles are wheelchair accessible

CapMetro Pickup

What's working well	Things Metro Region should consider
Cap Metro uses a zone scoring matrix that includes community characteristics (population 65 or older, zero car households, MHI, households in poverty, minority population, essential services within zone), service quality (passenger wait time, square mileage, ridership), and sustainability (cost effectiveness, MetroAccess customers, mobility impaired passenger, shared rides).	Choosing zone locations based on community characteristics can help ensure that benefits of this service are equitably distributed. Once established, service quality and sustainability metrics can be used to evaluate the success of the program in each zone.
Pickup and MetroAccess, Cap Metro's ADA paratransit service, share facilities and backend operations, which increases operational efficiencies and saves money.	Explore opportunities to share operations with current transit service in the region.



CapMetro Pickup

Challenges of providing this service	Things Metro Region should consider
Fare is the same as a bus ticket but has lower productivity than the bus	The service is funded mostly through sales tax, which is not an available funding source in the Metro region
Spikes in demand during peak hours makes staffing challenging, and split shifts are generally unappealing to potential drivers	Serving a variety of trip types can help distribute demand across the day

CapMetro Pickup

Key Performance Indicators

Cost to user	Operating expense per revenue hour	Operating cost per ride	Boardings per hour	Average wait time*	Monthly riders*
$1.25 (or $0.60 for reduced fare)		$29.41 per rider	3.4	15.7 minutes	39,155

*December 2024

UTA On Demand

Who runs it? Public Agency

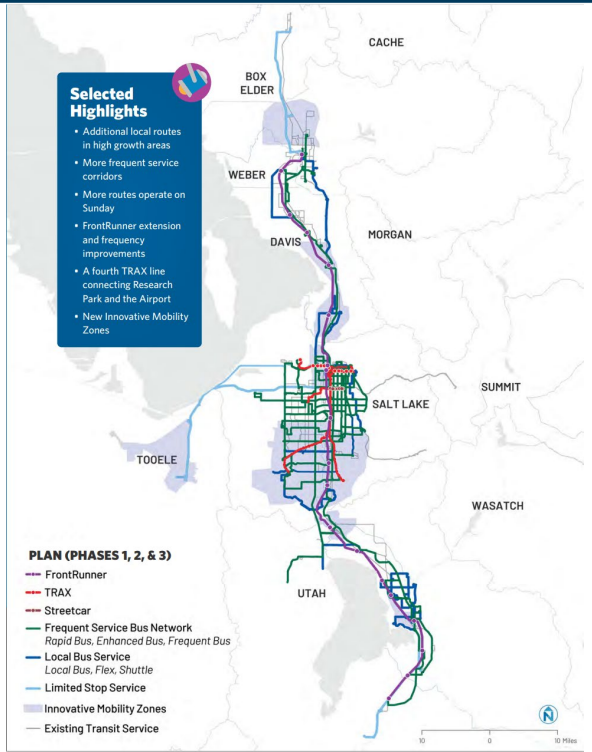
Who rides it? Anyone within four zones

Who pays for it? UTA general fund, $2.50 per ride

How is it equitable? Extends UTAs service hours

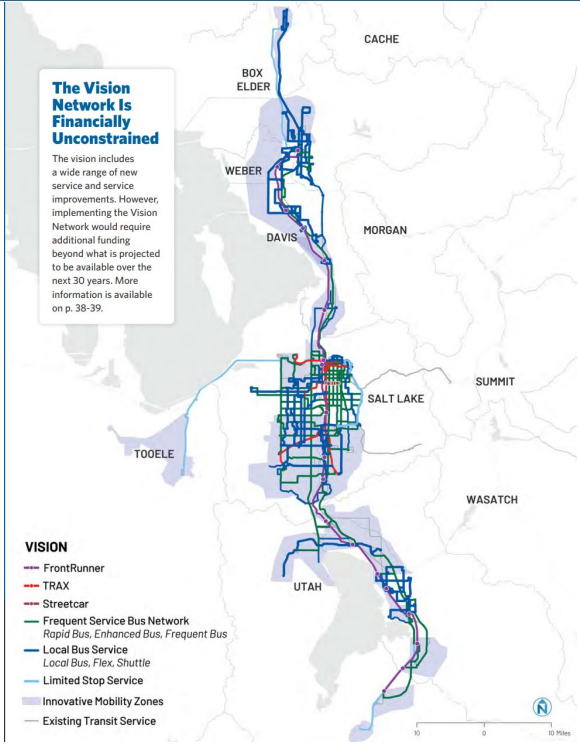
UTA On Demand

What's working well	Things Metro Region should consider
Long-term plans for on-demand service and other Innovative Mobility Services are established in 2050 Transit Plan, which holistically considers the full range of public transportation options in the region and captures the full cost of implementing this range	Consider concurrent planning of future high-capacity transit and community connector services
Tracks program success using well-developed KPIs based on peer research	Appropriate KPIs for on-demand service vary based on service goals and zone land use



UTA On Demand

Challenges of providing this service	Things Metro Region should consider
The 2050 Vision Network that includes fully expanded on-demand zones is not possible with existing funding levels	Not all areas that would be well-served by on-demand service are likely to be feasible, which underscores the need for a robust evaluation system for potential zones
Based on current development patterns in the Salt Lake City metropolitan region, a much lower percentage of people will live within a half-mile walk of transit by 2050, which increases the need for on-demand service	Efficient land use planning is crucial for reigning in the need for on-demand service, which is more expensive to operate than fixed-route service



UTA On Demand

Key Performance Indicators

Cost to user	Operating expense per revenue hour	Operating cost per ride	Boardings per hour
$2.50		$20.00 per ride	

Iride Inglewood

Who runs it? City of Inglewood and Los Angeles World Airports (LAWA)

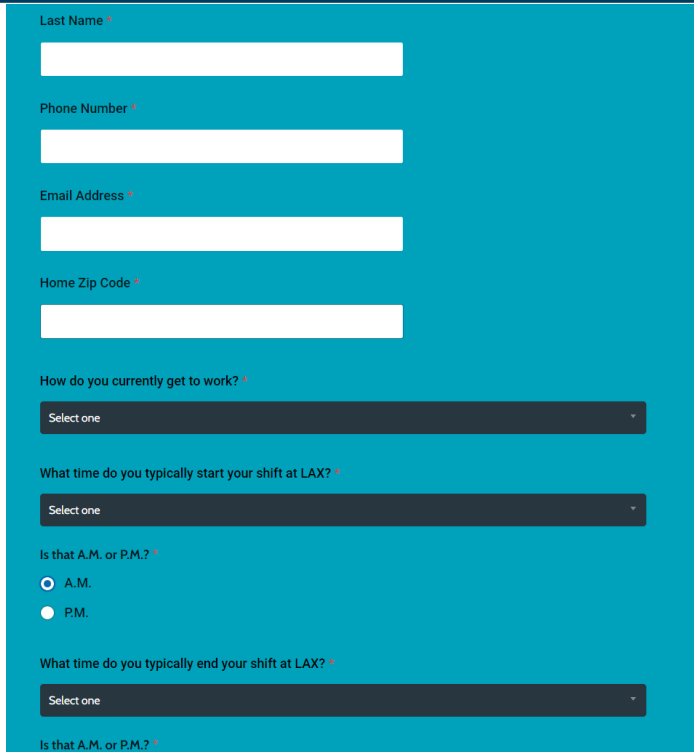
Who rides it? LAX employees who live in Inglewood or Lennox

Who pays for it? LAWA, which is funded through airline fees and landing fees

How is it equitable? Increases access to stable, low-barrier employment at LAX

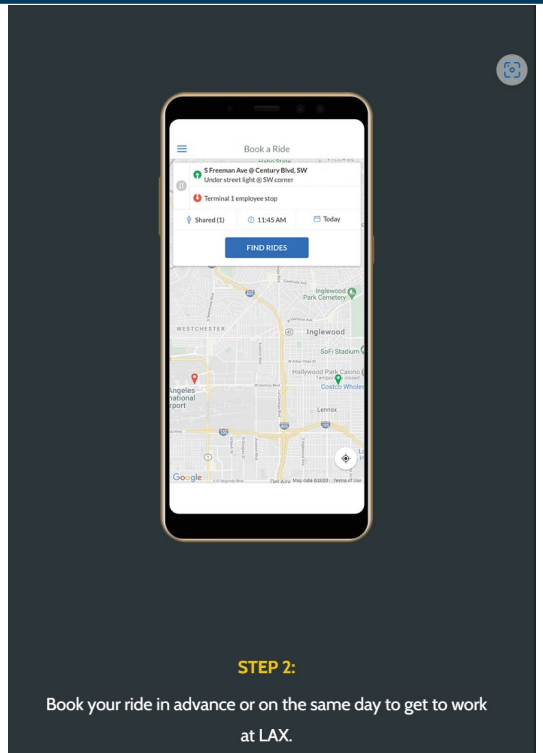
Iride Inglewood

What's working well	Things Metro Region should consider
Eliminates cost-based barriers to accessing employment opportunities at LAX without driving alone	Services focused on low-barrier employment sites can have major equity payoffs
Individualized service fills a gap that can't be filled by vanpools/carpools because of shift times and variability of schedules	Shift schedule and type of work can heavily impact what kind of service is most appropriate for serving job sites
Easy verification of eligibility – riders simply show their employee badge to the driver when boarding	Simple eligibility verification saves staff time and money
Robust data collection from employer surveys yields important information on employee home addresses and peak shift times	Using data to determine service hours and service zones can help efficiently allocate limited resources



Iride Inglewood

Challenges of providing this service	Things Metro Region should consider
Due to funding constraints, service is only provided between 4 a.m. and 8 a.m. and from 12:45 p.m. to 4:45 p.m.	Use data on shifts and existing transit service to ensure that employees have transportation available for trips to and from work
Finding drivers who will drive split shifts that start early in the morning is challenging	Balance shift schedules with feasibility of staffing driving shifts
Spreading information at a job site that is open 24/7, especially to service workers, can be challenging	Use existing communication channels (the Altitude app, in this case) to share information. Use in-person methods to reach those not on the app.



Iride Inglewood

Key Performance Indicators

Cost to user	Operating cost per ride	Boardings per revenue hour	On-time performance	Average commute time	Customer satisfaction
Free	$21.63 per ride	12.3	91.5%	22.5 minutes	4.9 stars

Ride Connection Community Connector

Who runs it? Nonprofit

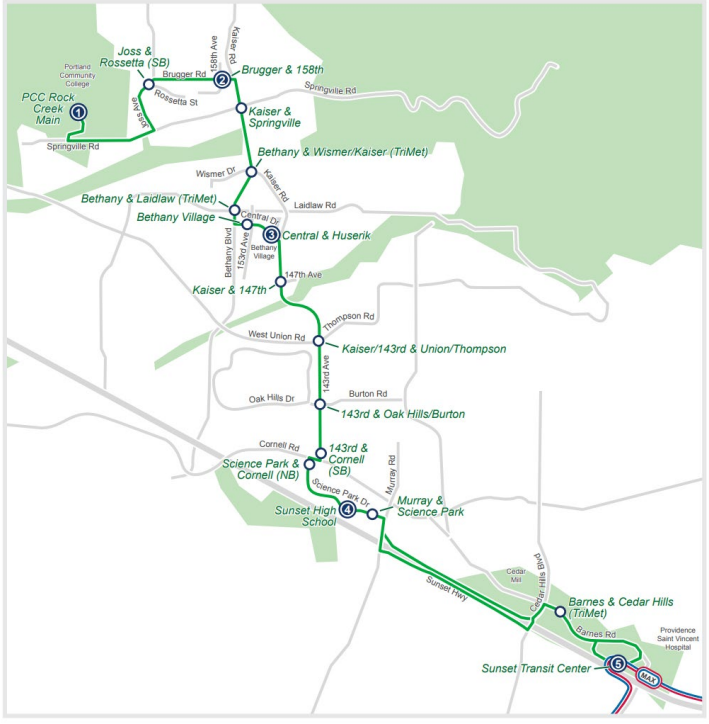
Who rides it? Mostly residents in areas underserved by fixed-route transit service

Who pays for it? Funded through public grants and donations, free to riders

How is it equitable? Removes cost barriers for transportation

Ride Connection Community Connector

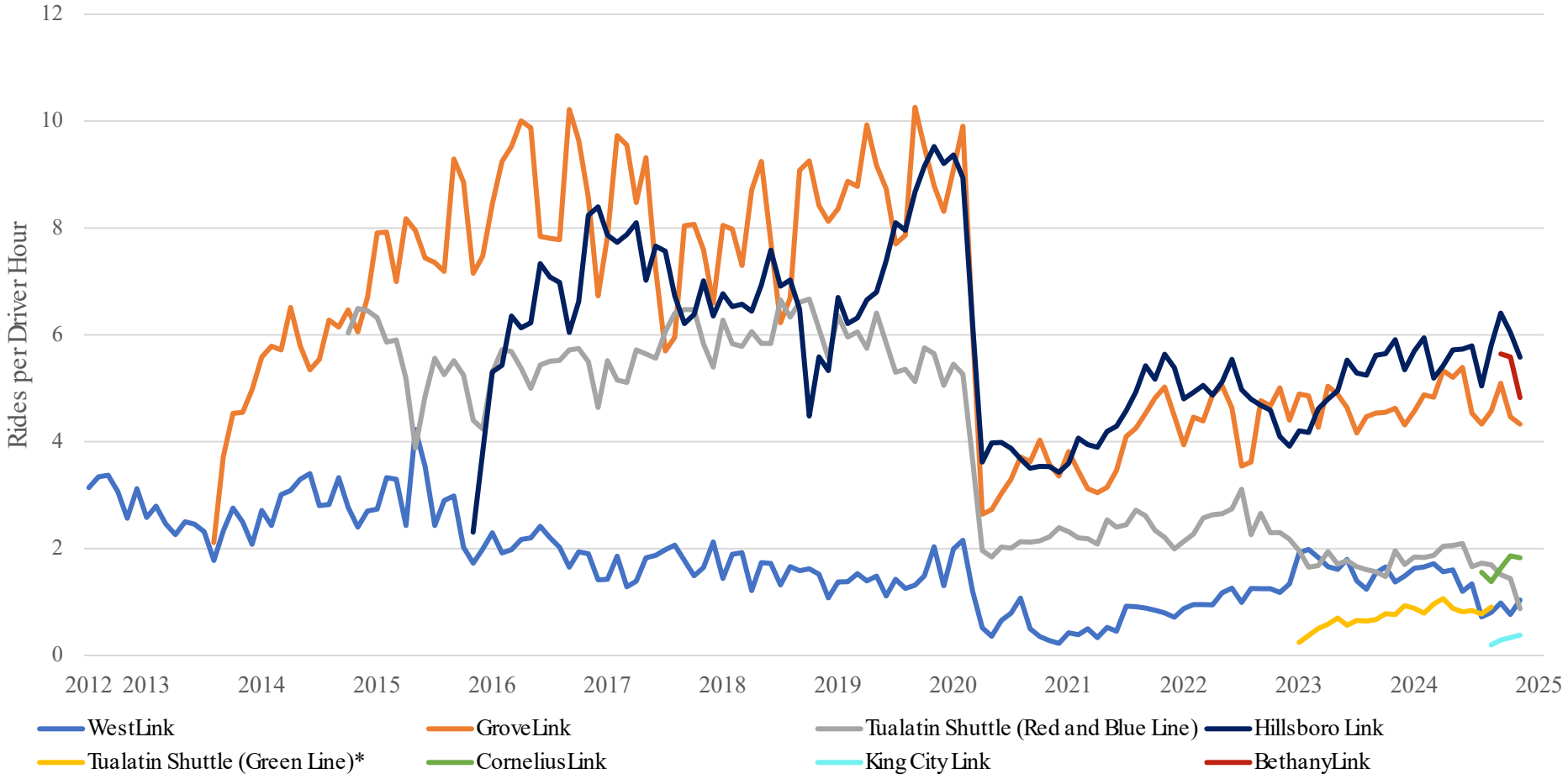
What's working well	Things Metro Region should consider
Deviated fixed-route service strikes a balance between reliability and flexibility	When setting up routes consider existing destinations and travel patterns
Functions both as a first-mile/last-mile connection to TriMet service and as a standalone mode of reaching community destinations, including employment sites, grocery stores, and schools	Providing a mix of destination types helps avoids major peaks in service demand around commuter hours only
The organization's flexible offerings is based on community engagement built from long-term relationships with various communities	Partner with existing organizations when evaluating need for new service in the region



Ride Connection Community Connector

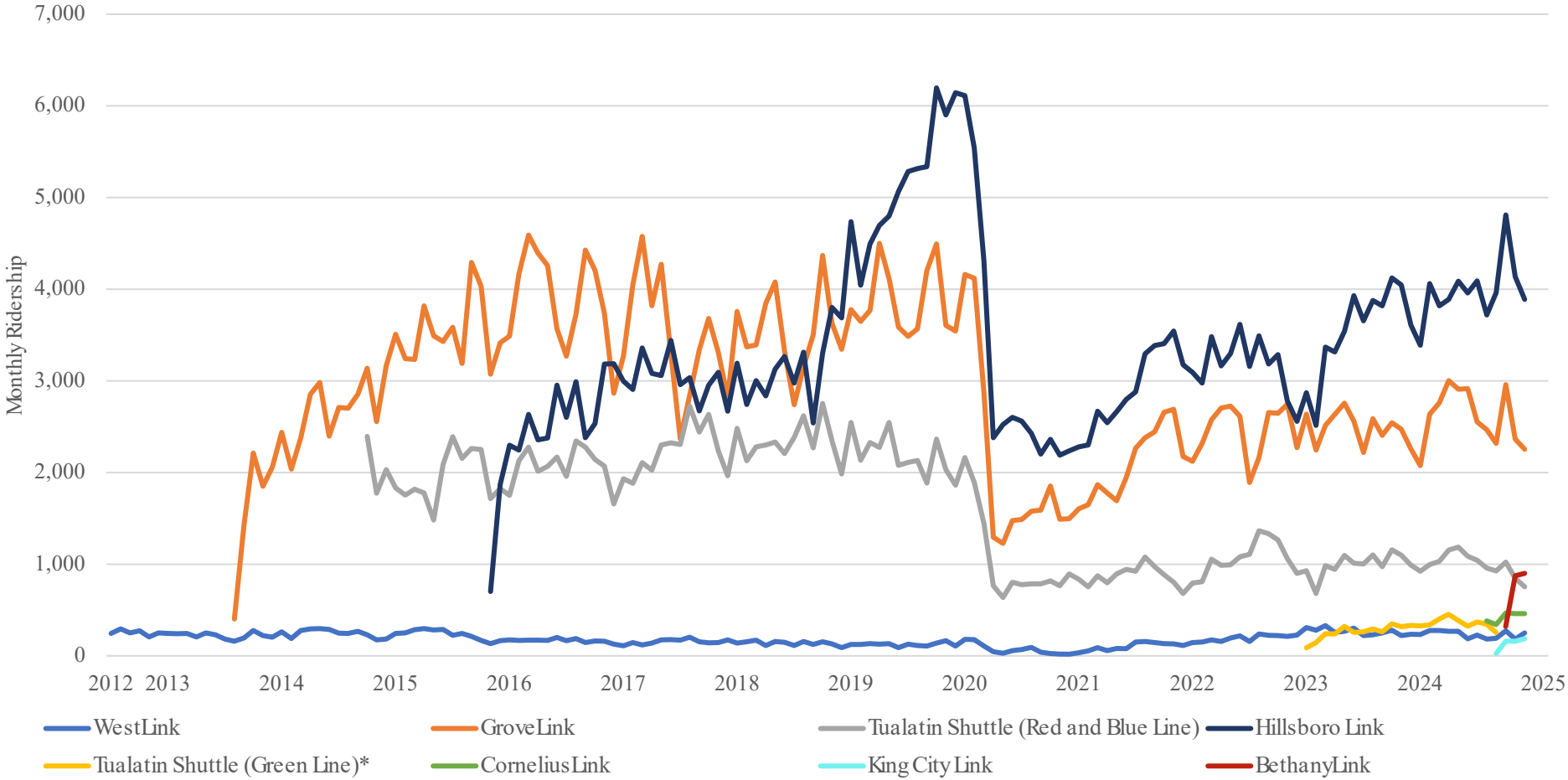
Challenges of providing this service	Things Metro Region should consider
Demand for service outstrips available funding	Ride Connection (RC) is an essential service provider in the region, and support for RC and other non-profits is important for maintaining quality of services in the region
As a nonprofit, Ride Connection must cobble together funding from public and private sources, some of which has very specific regulations around spending (e.g., 5311 funding must be used only in rural areas)	Navigating multiple funding sources makes providing transportation services more challenging

Figure 1: Ride Connection Community Connector Productivity, 2012–2024



*The Tualatin Shuttle Green Line was discontinued in mid-2024 when TriMet's Line 76 bus began operating hourly service seven days a week in Tualatin. Data provided by Ride Connection through 12/2024.

Figure 2: Ride Connection Community Connector Ridership, 2012–2024



*The Tualatin Shuttle Green Line was discontinued in mid-2024 when TriMet's Line 76 bus began operating hourly service seven days a week in Tualatin. Data provided by Ride Connection through 12/2024.

CalVans

Who runs it? Public agency

Who rides it? Mostly agricultural workers (635 of 736 vans)

Who pays for it? Self-funded after initial cost of acquiring van fleet

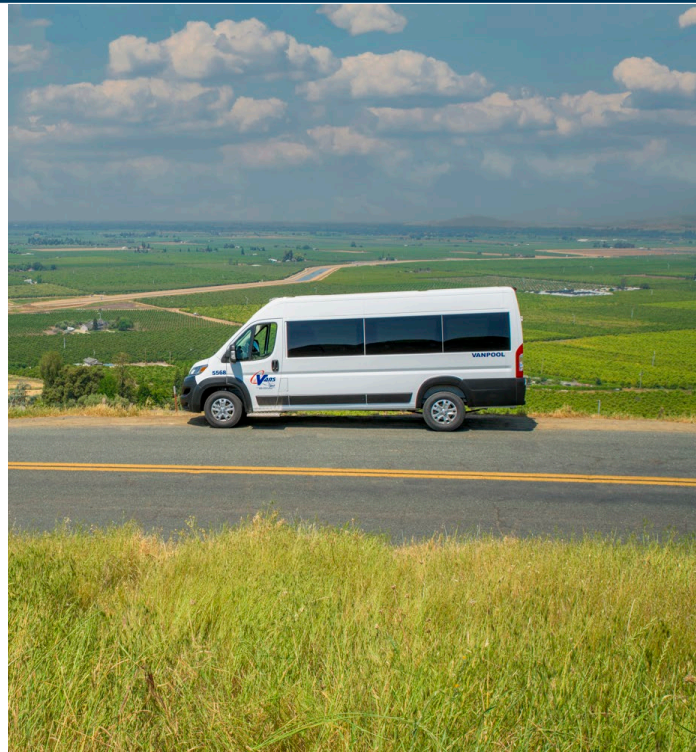
How is it equitable? Provides transportation for underserved population, partners with affordable housing providers

CalVans

What's working well at CalVans	Things Metro Region should consider
Flexible routes and departure times	Agricultural workers often work on multiple hard-to-access sites throughout the season. Having autonomy over where the vanpool goes helps meet the needs of their job.
Self-funding after initial investment	Low out of pocket costs can help encourage more participants
Can be set up through employer to meet requirements for decreasing employee SOV use	Explore opportunities for programs like this to be funded by Metro's RTO program

CalVans

Challenges of providing this service	Things Metro Region should consider
Legal challenges in providing agricultural worker transportation	Get an understanding of what can and cannot be provided in the state of Oregon
Difficulty estimating cost per ride or cost to rider	Up front coordination is needed to ensure the program is set up for success and riders cover the cost of operation and maintenance of the vehicle



CalVans

Key Performance Indicators

Cost to user	Operating expense per vehicle revenue hour*	Operating cost per ride*	Boardings per revenue hour*	Operating expense per passenger mile traveled*	Farebox recovery rate
Low, varies based on number of passengers and commute length	$41.16	$3.71	11.1	$0.13	96.8%

*NTD data from 2023

Pace Feeder Vanpool

Pace, the suburban transit agency in the Chicago area, helps fill first- and last-mile gaps in Chicago's fixed-route transit service by providing vanpools that can be either used before a transit trip or after. Vanpools used for first-mile connections can support commutes to many employment destinations. Vanpools that are used for last-mile connections can be used to support reverse commutes from the city to the suburbs, which is an important equity consideration as employment opportunities shift outside of urban areas. Using vanpools for these last-mile connections requires parking at transit stations so vans can stay there over the weekend. The cost of acquiring vans is funded through public funds appropriated for suburban job access.

Trailhead Direct

Who runs it? Public agency

Who rides it? General public

Who pays for it? KCM, riders ($2.75 fare), private sponsors

How is it equitable? Increases outdoor access for populations without cars, partners with community-based organizations, provides discounted rates

Trailhead Direct

What's working well	Things Metro Region should consider
Provides better outdoor access to populations without cars	• Departure points that are well-served by transit increase equitable access to the service • Partner with parks organizations to get on the same page about mission of service (providing access vs relieving parking congestion)
Service uses buses that are otherwise not in service on weekends	Explore opportunities to decrease capital costs through use of existing vehicles
Strong partnerships across agencies and with private firms pays for marketing that increases awareness for the service	Consider sponsorship opportunities with outdoor-related companies in the Portland region Consider potential limitations on how private money can be spent
Partnerships with community-based organizations support outdoor access for equity priority groups	Partner with organizations like Wild Diversity, Adventure Without Limits, and Latino Outdoors to increase the equity benefits of the program

Trailhead Direct

Challenges of providing this service	Things Metro Region should consider
Challenging to find drivers to work shifts on weekends and holidays (operator shortage persists)	Shifts must be incorporated into existing transit operator schedules rather than staffed separately
Fixed-route transit only serves urban areas that have population densities high enough to support it	More flexible services, like KCM's Community Van (next slide) can expand coverage to areas that are less dense
Resistance from park stewards, fire & rescue workers / locals who may be concerned about overuse or missuse of trails or wild lands	Trailhead Direct provides safety information and hiking tips to riders. Metro should consider partnering with local fire and rescue workers to understand concerns.

Trailhead Direct

Key Performance Indicators

Cost to user	Operating expense per revenue hour	Operating days in 2024	Total annual operating cost	Percentage of riders who don't have access to a personal vehicle*
$2.75	$179	37	$404,000	70%

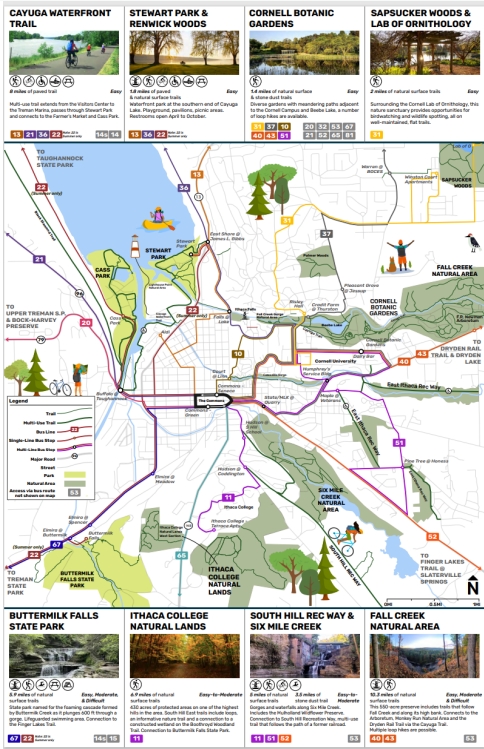
*Average based on ridership surveys

King County Metro Community Van

Trailhead Direct departs from downtown Seattle, which provides connections to fixed-route transit but does not serve all King County residents. To further encourage access to outdoor areas, KCM has been advertising the use of the Community Van for outdoor recreation and will cover the cost of Discover Passes. The Community Van is a volunteer-driven microtransit service that can be booked for any destination that is within a two-hour drive of the departure point. The Transit to Trails partnership has limited funding for King County residents who are people of color, immigrants, refugees, non-English speakers, disabled, LGBTQIA+, youth, and/or elderly to use the Community Van for outdoor recreation.

TCAT to Trails

TCAT to Trails is an information portal for existing transit service to natural areas in the Ithaca, New York, area. The brochure and website display maps of nearby natural areas and the bus lines that can be used to access those areas. The maps include information about the length and difficulty of trails available at each natural area. Highlighting existing service is an easy, low-cost way to connect more people to the outdoors using public transportation. Maintaining a list of parks that are accessible using transit – and providing instructions on how to do so – is a low-cost method for getting people into nature without a car. This information can be maintained on the Metro website and shared via social media and outreach to community partners.



Westside Transportation Alliance (WTA)

What is it? Transportation management association (nonprofit)

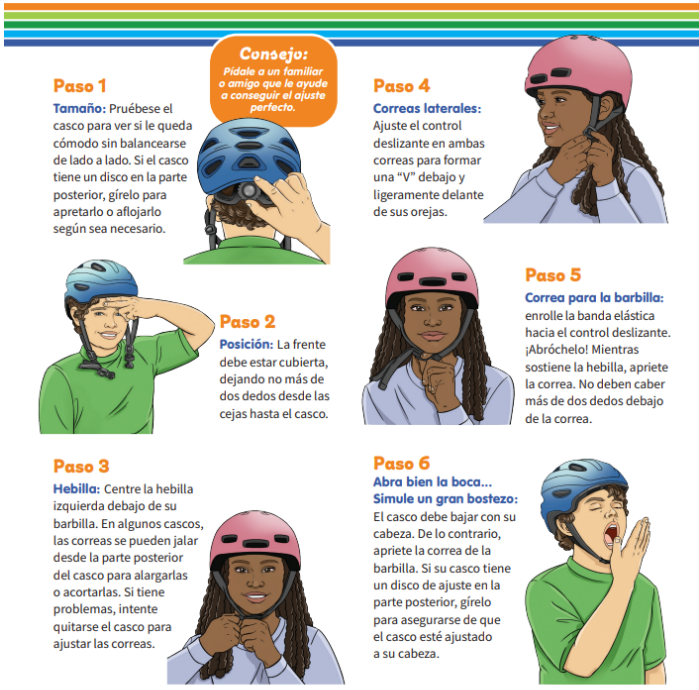
What does it do? Partners with businesses and commuters in Washington County to increase use of non-SOV transportation options

How is it funded? Memberships, grants from Metro and the Federal Transit Administration (FTA)

How is it equitable? Targeting equity populations through community engagement and Equity Work Force

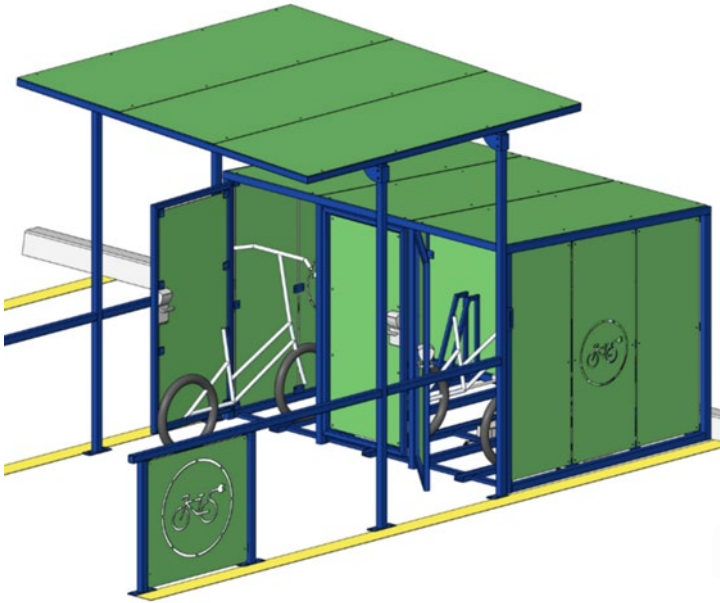
Westside Transportation Alliance

What's working well	Things Metro Region should consider
Membership from major companies and agencies, including Washington County, Nike, Intel, and Columbia, supports WTA's work	Evaluate differences between the three counties in the Metro region when evaluating appropriate transportation options
Operates within the policy framework of the DEQ ruling for businesses to decrease their SOV commute share	Consider what other regional regulations could be used to support transportation options
Three-year funding through Metro's RTO program allows WTA to focus on their work rather than constantly fundraising	Indicator of success of Metro's RTO program



Westside Transportation Alliance

Challenges of providing the service	Things Metro Region should consider
Promoting non-SOV commutes can be challenging in areas of Washington County that have limited transit options, especially for trips that do not go into Downtown Portland	In Washington County, pay attention to how the transportation system built to feed into Downtown Portland makes suburb-to-suburb commutes challenging
The ECO survey does not count contractors as employees, and employee-only communication channels leave contractors out of information-sharing about commute options	As major corporations increasingly use contractor labor, work together with the Oregon DEQ to re-evaluate best practices for gathering data on contractor commutes



PSTA Late Shift

Who runs it? Pinellas Suncoast Transit Authority

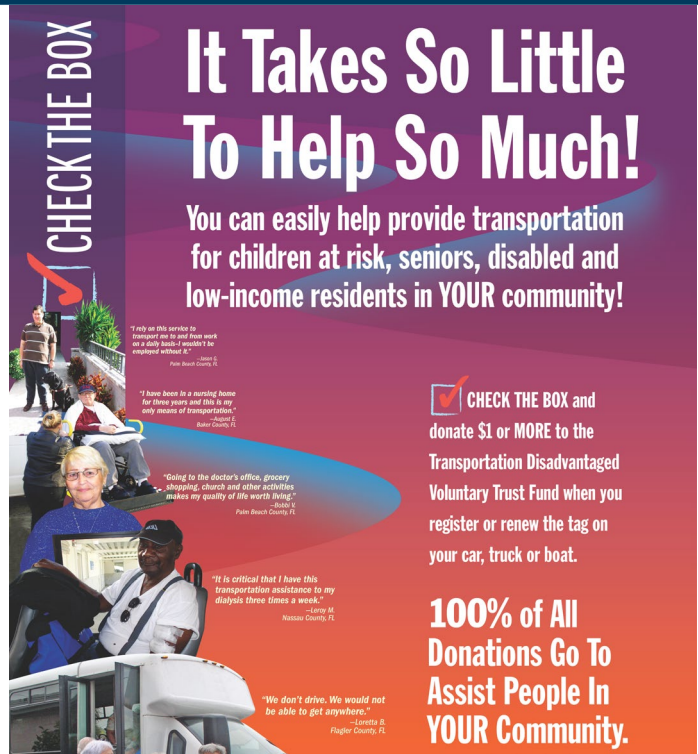
Who rides it? Transportation Disadvantaged (TD) communities who work night shifts

Who pays for it? 90% state funding, 10% local match, $9 per month for users

How is it equitable? Provides 25 Uber or taxi rides to work per month to residents who make less than 200% of federal poverty line, do not have reliable access to a vehicle, and work night shifts

PSTA Late Shift

What's working well	Things Metro Region should consider
Providing transportation outside of the operating hours of PTSA's fixed-route service to residents without reliable access to a vehicle creates employment opportunities that might not otherwise be feasible	Consider the times in which rides are eligible to ensure that potential transit trips are not replaced by SOV trips
Program works together with a suite of other options for Transportation Disadvantaged communities to provide mobility options for underserved communities	Funding for the program comes from the statewide Transportation Disadvantaged Program, which includes $1.50 from every vehicle registration or renewal plus additional voluntary donations



PSTA Late Shift

Challenges of providing this service	Things Metro Region should consider
Uber was hesitant to provide origin and destination data, making it difficult to verify that trips were used for work purposes	Establish data-sharing expectations in initial contract negotiations
The agency is responsible for enforcing rules (e.g., only using the trips for work that begins or ends during the hours of 10 p.m. and 6 a.m.)	Consider staff capacity for rule enforcement before program initiation
Program participants must first apply to be part of the TD program and then apply to be part of the Late Shift program, both by mail, which increases the time required by both applicants and staff	Look into partnering with existing programs, like TriMet's Honored Citizen Program, for operational efficiencies

PSTA Late Shift

Key Performance Indicators

Cost to user	Operating expense per revenue mile*	Operating expense per ride**	Unlinked passenger trips per vehicle mile*	Operating expense per passenger mile traveled*
$9/month, must also be enrolled in TD program ($11/month)	$118.62	$25.27	0.1	$9.56

*NTD data from 2023 for all PSTA demand response, including paratransit.
*Includes PSTA Late Shift, Direct Connect, and Mobility on Demand. Excludes paratransit.

Portland Transportation Wallet Access for All

The City of Portland's Transportation Wallet Access for All program provides free transportation options to people and households living on low incomes. These options include transit, e-bike and e-scooter share, ride-share, and taxis. Eligibility for the program is determined based on income verification and membership in one of 18 community-based organizations that have partnered with PBOT for the program. Transportation options include transit benefits, bikeshare benefits, and a Visa card for ride-shares and taxis. The program is funded through a $0.20 Climate and Equitable Mobility Transaction Fee on parking.

Lựa chọn 1 — Quá cảnh trong một Năm – Cá nhân

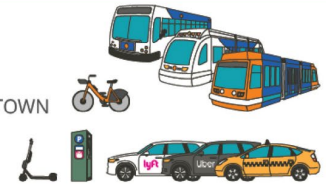
Tùy chọn này bao gồm:

- Quá cảnh: "Thẻ TriMet Honored Citizen 1 năm" cho không giới hạn lần đi

Lựa chọn 2 — Tất cả các chế độ Cá nhân

Tùy chọn này bao gồm:

- Quá cảnh: $200 trên thẻ Hop của bạn
- BIKETOWN: BIKETOWN for All hoặc Adaptive BIKETOWN
- Thẻ Visa trả trước: $75 cho các dịch vụ vận chuyển



Lựa chọn 3 — Mọi chế độ Hộ gia đình *(Nhiều người sống cùng địa chỉ)*

Tùy chọn này bao gồm:

- Quá cảnh: $225-$300 trên thẻ Hop của bạn
- BIKETOWN: BIKETOWN for All hoặc Adaptive BIKETOWN
- Thẻ Visa trả trước: $100–$175 cho các dịch vụ vận chuyển

Zipcar

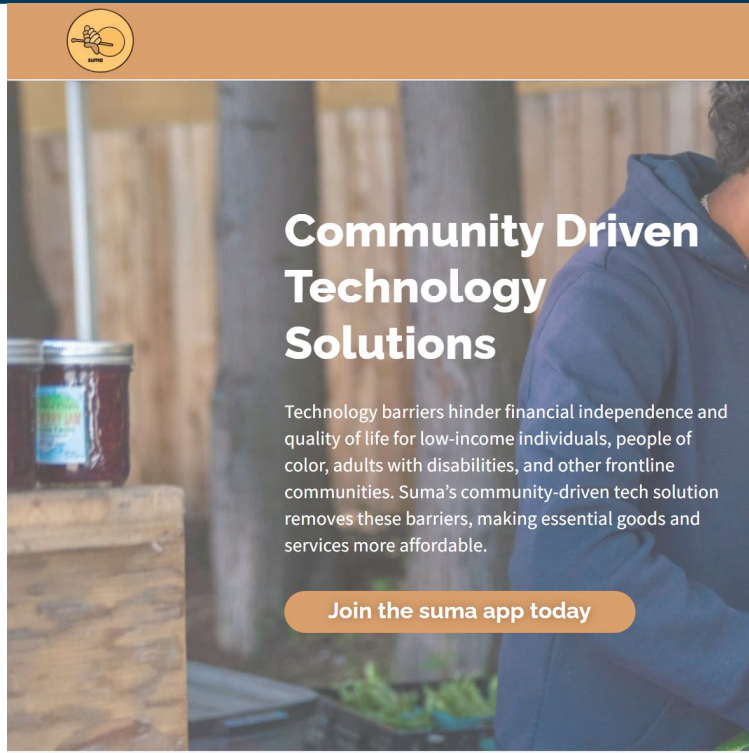
Zipcar is a hub-based carshare service in Portland and across the country. Because Zipcars is hub-based and must be returned to official Zipcar spots, it's better suited for replacing infrequent vehicle trips than for supporting first- and last-mile transit trips. Zipcar's Annual Impact Report shows that Zipcar members are more likely to take transit than non-Zipcar users and estimates that every Zipcar replaces 13 parking spaces.

Hourcar

Hourcar is a carshare service in Minneapolis-St. Paul. Membership in Hourcare includes membership in Evie, which is a free-floating electric carshare. Free-floating carshare can be used to support first-mile and last-mile connections because it doesn't require users to return the vehicle to the same spot. Hourcar has the goal of increasing electric vehicle access in historically marginalized neighborhoods, where electric vehicles are typically rare. Hourcar includes a Minnesota State Parks pass to support outdoor recreation trips.

Lime Access & suma

Lime Access is Lime's income-verified discounted program for their scooter-share program. Using Lime does not require having a smart phone – users can unlock scooters by calling a phone number and can pay in person at certain retailers. Lime partnered with suma, a Portland-based nonprofit that works to overcome the digital divide for frontline communities, to identify why communities who are eligible for Lime Access are not using the service. Suma found that the communities they work with are often hesitant to share their location data with large corporations. Additionally, many people living on lower incomes were wary of linking their bank accounts to an app due to fear of unexpected charges. To overcome these barriers, Lime agreed to allow users to access Lime vehicles using the suma app, which is an app that consolidates verifies opportunities for low-income community members to save money on goods and services onto one platform. Because banking information and GPS information is limited to an app that is already trusted, more people feel comfortable using Lime Access. The successful partnership between Lime and suma demonstrates the importance of partnering with community-based organizations to identify mobility barriers.



Parametrix
let's create tomorrow, together

Technical Memorandum

DATE:	March 11, 2025
TO:	Ally Holmqvist, Metro Transit Working Group
FROM:	Ryan Farncomb, Sam Erickson (Parametrix); Oren Eshel, Anna Geannopoulos (N/N)
SUBJECT:	Task 5: First/Last Mile Transit Service Opportunities Criteria and Methodology
PROJECT NAME:	Community Connector Transit Study

This memorandum documents the proposed methodology for identifying areas within the Portland Metro region with gaps in access to transit. This methodology and criteria will help to establish "opportunity areas" where community connector transit service could be an appropriate solution to address unmet travel needs. In this study, the term "community connector" refers to generic fixed- or flex-route transit service that provides first- and last-mile connections to the greater regional Portland transit networks, as well as non-specialized trips (i.e., without special eligibility requirements) to key destinations within the communities in which it operates.

Gaps in access to transit services within the region, both geographically and temporal (i.e., service gaps related to time of day/night) will be considered. The study is focusing on evaluating gaps in access to transit for travel to/from areas beyond the regional fixed route networks.

It is important to note that this study is focused narrowly on where and when community connector services may be appropriate, cost-effective, and beneficial in addressing regional mobility gaps aligned with regional goals. This study is not engaged in planning for the fixed-route light rail and/or bus networks operated by TriMet or SMART; these agencies have separate planning processes such as Forward Together and the Transit Master Plan, respectively, which plan for the future of the regional fixed-route network. This study is complementary to these efforts and focused on opportunities in areas either unserved or underserved by fixed-route services but potentially supportive of community connector type transit solutions.

Methodology

The proposed methodology relies on a mix of quantitative data, best practices, findings from prior study work, and qualitative assessment to arrive at potential opportunity areas. This phase of work will identify the potential opportunity areas, while later phases of work will prioritize areas for investment and identify possible transit strategies. Outcomes from this analysis will include:

- An understanding of potential geographic areas where new or expanded community connector transit service could provide benefit.
- Potential temporal gaps in access to transit that could be addressed by new or expanded community connector service.
- Opportunities to serve regional parks with community connector services.

The overall process includes the following steps, explored in greater detail in the subsequent sections below:

- Identify first/last mile access to transit gaps in the region. This step will combine previously-identified community connector service needs from local plans with a broad assessment to determine areas of the metro region that represent gaps in terms of ability to access transit

- Of the gaps and areas of need identified, determine whether these areas would be supportive of community connector transit services (today or in the future). This step further refines the gap areas to understand if there is potentially a market for transit services
- Identify potential opportunity areas. This step will identify what the potential market for transit services is, and where a given area might connect (e.g., connections to the nearest light rail stop). This third step will result in "opportunity areas" that will be further refined through engagement and later work on the project

First/last mile access to transit gaps

For the purposes of this study, access to transit gaps are geographic areas, or times of day, when people cannot reasonably access transit to meet their travel needs. The first step in this process will be to inventory community connector services planned or proposed by agency partners. Much work has been completed in the region on this subject, such as prior ideas from TriMet's Service Enhancement plans, plans for expanded community connector services in Washington County's Transit Study and Transit Development Plan[1], as well as "community job connector" areas identified in the Regional Transportation Plan (RTP) Transit Vision (Figure 2.34). These services will be mapped, either as lines/routes where there is a specific route or as polygons where there is a particular service area.

Second, the project team will identify potential additional gaps with respect to the existing transit network (TriMet Forward Together 1.0, SMART services as identified in its 2023 Transit Master Plan (TMP), and existing community connector services) and future transit network (Forward Together 2.0 Strategic Transit Vision for TriMet fixed-route and light rail services, and the Metro RTP Transit Vision for other services).The following approach will be used to identify initial broad areas of interest for further refinement:

- All areas of the region that are more than 0.5 miles away from a high capacity transit station or a frequent transit network stop, or 0.25 miles from other fixed route stops or community connector transit service in the region. The team will use "network distance" based on existing roadways

- The locations of key community destinations *beyond the reach of the fixed-route transit network*, including the following based on the Metro Community Places data layer:
    - City halls
    - Community centers
    - Fire stations
- Hospitals
    - Libraries
    - Schools
    - School sites

  Additionally, key community destinations will include:
    - Parks
    - Affordable housing
    - Grocery stores
- Social services
    - Community colleges and universities

[1] https://www.washingtoncountyor.gov/lut/planning/washington-county-transit-study; https://www.washingtoncountyor.gov/lut/transit-development-plan

- Locations of any housing above approximately 4 units per acre that are more than 0.5 miles from fixed-route transit networks

The resulting maps (existing and future) from layering these data will show areas of the region without transit access and the areas of opportunity identified in other local plans.

Temporal gaps will focus on access to employment for jobs with non-traditional work hours. These gaps will be identified through employment data on concentrations of jobs with shift work, as well as through Transit Working Group (TWG), public, and partner feedback.

Details/assumptions for this step:

- Largest employer sites (pulled from the Internet or from past projects) will be mapped as points, with metadata that includes the number of employees, and whether there are likely to be shift workers there who work second, third, or alternative shifts. (Note that some large employers have multiple locations. Propose working with partners to rely on past work that identifies key employment locations and shift times)

- The existing fixed-route transit network will be the planned full implementation of the Forward Together 1.0 network, as defined by TriMet, and the full implementation of SMART fixed-route network as defined in the 2023 TMP. The future network will use the fixed route bus and light rail network in TriMet's Strategic Transit Vision (Forward Together 2.0) and other planned elements of the transit system found in the RTP Transit Vision).

Criteria to determine transit-supportive areas

This step will establish where there are transit supportive markets within the areas identified as transit access gaps. At this step, results will only be used to establish whether some level of transit service could be viable, but not which type of community connector service delivery model is appropriate. Areas that do not score well or meet agreed upon thresholds may not be suitable for transit service, or may be better suited for other types of transportation solutions.

Core metrics include:

- Minimum population density of 8 people per acre, using Census data or Transportation Analysis Zones (TAZs) from the regional travel model for existing and/or future population

- Top quartile of the TriMet Equity Index, which includes ten indicators of populations having social vulnerability, such as minority status, low-income, limited English speaking proficiency, seniors over 65, youth 21 or under, disability status, low access to a personal vehicle. Affordable housing, percentage of low-wage jobs, and density of available services round out the remaining indicators. The team will also identify areas in the top quartile of minority status and low-income.

- Major employers: existing locations of employers or employment sites exceeding a size threshold (could include classification of distance from transit and mode share)

- Alignment with Metro 2040 land use designations including regional centers, town centers, station communities, main streets, corridors, and employment land. Many of these areas will already have robust fixed-route transit; the goal here is to understand if any of these designations lie within the broad transit gap areas identified in the first step

The team will identify high capacity and frequent transit stop and park and ride locations proximate to the opportunity area as well as key destinations; these locations represent possible connection points for community connector transit service.

In addition to applying these criteria to refine opportunity areas, the project team will include opportunities identified from TWG or public feedback.

Temporal gaps refinement

The team will identify areas with concentrations of shift workers, overlaid with the existing transit system (fixed and community connector transit) to understand where there could be temporal gaps in service (e.g., time-of-day gaps, or weekend service gaps, etc.), as discussed in the prior section. This information will be useful for discussions with the TWG and other groups to understand what gaps have been previously identified and what areas may warrant further investigation. In the case of night- or third-shift employment, the same transit planning principles apply; that is, if the transit propensity is low due to distance, density, or potential demand, other solutions besides community connector transit may be a better fit. Temporal gaps may also include understanding of whether there are certain days or times where additional transit service may be warranted.

Identify potential opportunity areas

This step will identify the market or trip purposes served by potential community connector service to or in the areas identified in the prior step. Analysis will include the following:

- Whether there is support from local or regional plans for community connector transit services; identified opportunities from TWG and public feedback.
- Origin-destination travel demand derived from Metro's travel model to understand possible connection points for opportunity areas.
- Alignment with the markets for community connector service described in the best practices document, including serving low-density housing, regional parks, employment, and off-peak service.
- High-level assessment of potential pedestrian barriers influencing the need for service.

Opportunities will be sorted into four broad categories:

(1) **Current:** areas that would address current and ongoing need for community connector services
(2) **Temporary:** areas that demonstrate current and ongoing need for community connector services, but the service may be rendered obsolete in the future due to population growth, changes in land development, and planned fixed-route network expansions
(3) **Future:** areas that do not meet a threshold to support community connector transit, but that are likely to emerge as such in the future due to anticipated changes in land use, population, and employment densities
(4) **No opportunity:** some areas may not be suitable for community connector transit services today or in the future

Access to recreation

There is a desire by Metro for a focused examination of access to regional parks, especially those that are at the periphery of the region and that have low or no access via transit today. Metro considers a "regional park" as one offering recreation activity opportunities including trails and/or water access, of a sizable nature (around 15 or more acres), and currently offering parking (indicating visitation is encouraged and frequent), These parks with features that indicate a major

regional draw, and therefore regional significance, were identified from Metro's Outdoor Recreation and Conservation Areas RLIS file. This analysis requires a slightly different approach than the broader opportunity areas process described previously. Best practices indicate that transit serving major parks with regional draw should connect to high density, highly transit-accessible bus stops or stations. This analysis will include input from existing transit providers about high ridership stops, particularly those that serve multiple bus routes or light rail lines that could be on a list for consideration.

Key criteria that will be considered include:

- Park visitation numbers, from Metro
- Parking availability
- Proximity to existing major fixed route/HCT stop locations
- Network distance from fixed route transit
- TWG and public feedback

Access to regional parks may have overlapping opportunity areas with other opportunity areas identified from the methodology described in previous sections. For a destination-based service such this, the team will ensure service alternatives do not conflict with Federal Transit Administration charter bus service regulations.[2]

Next steps

In the next phase of the project, the public and the TWG will provide feedback on a draft opportunity areas map, and regional priorities. Adjustments to opportunity areas based on feedback will result in an updated map of opportunity areas by priority.

[2] https://www.transit.dot.gov/regulations-and-guidance/access/charter-bus-service/charter-bus-service-regulations-0

DATE: March 21, 2025

TO: Ally Holmqvist, Metro

FROM: Eddie Montejo, Senior Planner, Parametrix
Ryan Farncomb, Project Manager, Parametrix
Sam Erickson, Senior Planner, Parametrix
Oren Eshel, Nelson-Nygaard
Anna Geannopolous, Nelson-Nygaard
Holly Querin, Nelson-Nygaard
Alex Dupey, MIG
Lauren Scott, MIG

SUBJECT: **DRAFT** Mobility Hub Evaluation Criteria

1. Introduction and Purpose

This memorandum outlines the draft evaluation criteria that will guide the assessment of potential mobility hub opportunities in the Portland Metro region. The criteria are designed to ensure that mobility hubs align with regional goals for future growth and multimodal connectivity, address regional transit needs, and support future investments in transit-supportive development. The evaluation criteria will also inform the refinement of the Community Connector Project Mobility Hub Toolkit, which will help organize and guide future investments in context-sensitive hub features and elements throughout the region. This memorandum proposes a working definition for mobility hubs in the Portland Metro region, identifies mobility hub success factors, and describes the evaluation approach and screening process for identifying regional mobility hub opportunities.

1.1 What is a mobility hub?

The concept of a mobility hub is inherently flexible and context-dependent, which makes it essential to define these hubs with a clear, region-specific framework—especially in the Portland Metro area. At its core, a mobility hub serves as a key location within a transportation network where people can efficiently access and transfer between multiple modes of travel, such as transit, shared mobility services (e.g., bike share, scooters), biking, walking, and other emerging transportation options. Mobility hubs can also incorporate amenities for personal mobility such as secure short- and long-term bike parking. Mobility hubs are also a key strategy in promoting transit-oriented development (TOD).

While traditionally associated with transit, mobility hubs can play a critical role in addressing the first-last mile needs in areas that may not yet have direct transit service. Importantly, mobility hubs also distinguish themselves from traditional transit stops by emphasizing placemaking and creating comfortable, safe places with amenities seating, phone charging stations, lighting, landscaping, public art, food services, and shelter. Mobility hubs can also be coupled with resiliency and emergency response infrastructure (e.g., Basic Earthquake Emergency Communication Nodes) to address gaps in regional disaster preparedness.

In growing neighborhoods or emerging districts, mobility hubs can act as essential anchors, providing the connectivity needed to support TOD and other mixed-use projects. These hubs help lay the groundwork for future transit investments and facilitate sustainable growth by providing accessible, multimodal transportation options in areas poised for development.

Photo 1. Conceptual Mobility Hub. Source: Parametrix
This conceptual mobility hub features a variety of on and off-street flexible features, including typical bus stop amenities (e.g. shelter, seating, and shade), curb bikeshare and scooter docks, short- and long-term bike parking, EV charging stalls, rideshare stalls, and placemaking elements such as landscaping and food trucks. Mobility hubs are inherently flexible to meet local and regional needs.

In already transit-rich environments like Portland, mobility hubs can facilitate intermodal connections, allowing riders to seamlessly transition between modes like buses, light rail, bike share, and shared mobility services. This increases regional connectivity and enables efficient travel across the metro area, helping improve the overall efficiency and functionality of the transportation system. For instance, mobility hubs can expand mobility options to other areas of the region, bridging gaps in access and enhancing regional equity.

The flexibility of mobility hubs is key to their success. They can vary significantly based on local needs, land use patterns, and the existing transportation infrastructure. While large-scale infrastructure hubs like the Portland Airport MAX Station and other TriMet Transit Centers are ideal in central locations with higher transit demands, smaller-scale town and regional hubs—such as those at Clackamas Town Center or the emerging hub in Fairview—can support localized transportation needs, such as access to regional bus routes and intercity connector service, while catering to lower-density or developing areas. These smaller hubs may offer fewer services but can still greatly enhance accessibility and convenience for their users.

1.2 Mobility Hub Typologies

The project team for the Community Connector Transit Study has separately developed a mobility hub toolkit and typology (refer to the *Community Connector Mobility Hub Toolkit Memorandum)*. Four regional hub types are proposed in the draft typology; because hubs of different scales are appropriate for different contexts, the types are an important consideration for the criteria and approach to evaluating regional mobility hub locations:

- **Major urban hub** (e.g., Downtown Portland Transit Mall): Major Urban Hubs refer to high-capacity transportation hubs located in dense, mixed-use urban cores, offering the greatest variety of mobility options and amenities in the region. In the Portland Metro context, these

generally refer to high-capacity transit stations within higher-density urban areas with significant investments in multimodal integration.

- **Regional hub** (e.g., Beaverton Transit Center): Regional Hubs provide important regional transit connectivity and typically have transit connections to the region and downtown Portland. These hubs may support a mix of transit services—such as MAX, FX, frequent transit service, and shuttle connections—and may include transit-oriented development (TOD) features. While situated in more suburban contexts, Regional Hubs bridge the gap between urban and suburban mobility needs by providing a variety of transportation options ranging from high-capacity transit to car-share and micromobility.
- **Town hub** (e.g., Orenco Station, Lents): Town Hubs both serve local travel needs and have strong connections to regional transit services. These hubs are typically situated in less dense or suburban areas of the region. Town Hubs balance local accessibility with regional connectivity, acting as community focal points that support multimodal travel and vibrant public spaces. Town hubs can vary in transit levels and may lack high-capacity or frequent transit services in some cases.
- **Local and emerging hub** (e.g., Tualatin Park and Ride): Local and emerging hubs refer to hubs in rural centers and emerging suburban areas of the region. They can serve suburban employment districts, campuses, and medical centers. Existing transit service is lower than what is found in the other three categories, and the surrounding land use is generally auto-oriented. Emerging transit nodes in the outer parts of the region can also be considered as future Local Hubs, primarily serving local or area-level travel needs (e.g., Tigard Triangle).

It is important to note that hub types are not mutually exclusive, and that some hubs may share characteristics with more than one type. The typology considers both functions such as the services provided and the populations they serve—and context—which includes the environmental and situational factors that make a hub successful in its location. There is also an opportunity to align these types with Metro 2040 Centers and design types (e.g. regional and town centers, station communities, neighborhoods, open spaces, etc.), which refer to the building blocks of the regional strategy for managing growth. Understanding the context guides the selection of appropriate criteria for identifying the most promising locations for each hub type.

1.3 Mobility Hub Success Factors

When evaluating a mobility hub's potential for success, several key factors must be considered to ensure that the hub effectively meets the needs of the community and contributes to the region's transportation goals. These factors include:

Connectivity: A successful mobility hub must provide seamless connections between different modes of transportation, such as transit, active transportation options (like biking and walking), and shared mobility services. The hub should be well-integrated into the broader transportation network, facilitating efficient intermodal transfers and minimizing travel times between modes.

Land Use + Regional Significance: Successful mobility hubs align with Metro's 2040 Growth Concept by being strategically located in designated Regional Centers, Town Centers, and other key growth areas. These areas are planned for higher-density, mixed-use development with strong transit connections, creating ideal conditions for integrating multimodal transportation services and enhancing regional mobility. This success factor also considers mobility hub and growth centers identified in local plans that may be outside of designated Metro Centers.

Equity + Community Impact: Mobility hubs should prioritize accessibility, affordability, and inclusivity, reducing transportation barriers for underserved communities. Successful regional hubs should serve Metro's Equity Focus Areas (EFAs) and historically marginalized neighborhoods, improving connections to key destinations like jobs, healthcare, and education.

Transit Access: In the Portland Metro context, successful mobility hubs must enhance seamless access to and from the regional transit system, including bus, light rail, and other high-capacity modes. Hubs should be well-integrated with existing transit services, ensuring frequent and reliable connections that enable riders from various parts of the region to travel efficiently.

2. Evaluation Approach and Screening Process

The evaluation approach builds upon the mobility hub typology introduced in the previous section. The team will apply a series of screening steps to potential hub candidate sites, but these screens will be applied with nuance, tailored to the specific characteristics of each hub type.

For each type, the evaluation criteria will be adjusted to reflect the unique context and function of the hub, ensuring that the analysis considers the diverse needs and roles these hubs play within the broader transportation network. This approach ensures that the evaluation is both comprehensive and sensitive to the varying roles that different types of mobility hubs play in serving the community. The evaluation process includes the key screening steps described below.

2.1 Step 1: Establish the Mobility Hub Typology

As described in Section 1.2 above, the first step in evaluating regional mobility hub opportunities was to build on prior work done to establish mobility hub types and features that can respond to different regional contexts and first- and last-mile opportunities. The types will guide how the evaluation criteria are applied to potential hubs in Step 3 below.

2.2 Step 2: Identify Universe of Potential Mobility Hubs

Hubs and transit areas previously identified in local and/or regional plans that meet minimum transit service thresholds will be selected using broad transit service criteria. These locations include:

- High-Capacity Transit stations (MAX, Streetcar, FX)
- Frequent Transit Network stops
- Transit Centers and Park & Ride facilities
- Intercity transit stops and stations, rural shuttle stops
- High transfer stop locations, which may or may not be Frequent Service
- Mobility hub locations previously identified in local plans

This initial screening establishes a baseline level of transit service required for any type of mobility hub opportunity. In addition to these transit locations, we will include locations identified in local and regional plans—including Metro's 2040 Growth Concept Centers—as potential mobility hubs. These areas are assessed against a minimum transit service threshold to ensure they meet the basic accessibility and service levels required for successful mobility hubs. If a location within a Metro Center is not identified through the Step 2 analysis—primarily based on minimum transit criteria—the analysis will ensure that at least one mobility hub opportunity is identified in each Metro Center as part of the analysis. This integrated approach considers both minimum transit service levels and land use designations to ensure a broad set of potential hubs. All high-capacity transit stations, including all MAX stops (not just designated transit centers), are included in the analysis. Locations like the 82nd Avenue MAX Station would not be excluded based on this methodology.

2.3 Step 3: Typology-Based Evaluation

Once the initial universe of possible locations is identified, the team will conduct a more detailed evaluation, applying specific criteria tailored around each mobility hub success factor (i.e., Connectivity, Land Use + Regional Significance, Equity + Community Impact, and Transit Access).

These criteria will be applied with nuance depending on the hub type (e.g., regional vs. neighborhood hubs), ensuring that the analysis reflects the unique roles each hub plays within the broader transportation network. Based on this evaluation, the highest-performing locations will be identified as strong candidates for mobility hubs. These locations will align with both local priorities as outlined in planning documents and regional goals, ensuring that the selected hubs are strategically placed to meet the diverse needs of the community.

The draft evaluation criteria to be used in Step 3 is summarized in Table 1 below.

Table 1. Step 3 Mobility Hub Typology-Based Evaluation Criteria

Success Factor	Evaluation Criteria	Data Sources /Methods	Typology-Specific *(Potential)* Measures				
			Major Urban Hub	Regional Hub	Town Hub	Local and emerging hub	Future Hubs[1]
Connectivity Assess **existing** and planned connectivity to transit, active transportation infrastructure, and **opportunities for multimodal integration.**	**Transit Connections** Existing connections to transit service (including intercity)	TriMet and other provider data	▪ MAX Stations and TriMet Transit Centers *(yes/no)* ▪ FX or other HCT Stops *(yes/no)* ▪ Frequent Service network or other high frequency stops/corridors *(yes/no)*	▪ MAX Stations and TriMet Transit Centers *(yes/no)* ▪ FX or other HCT Stops *(yes/no)* ▪ Frequent Service network or other high frequency stops/corridors *(yes/no)*	▪ FX or other HCT Stops *(yes/no)* ▪ Frequent Service network or other high frequency stops/corridors *(yes/no)*	▪ Existing local fixed route service (yes/no)	▪ Future Frequent Transit stop or HCT corridor based on Forward Together 2.0 or future HCT Strategy
	Active Transportation Connections Existing connections to active transportation infrastructure	▪ Metro RLIS Sidewalk, Trails, Aerial Tram, BikeThere dataset, etc. ▪ Jurisdictional active transportation infrastructure data	▪ Presence of high quality (separated) active transportation infrastructure connections *(qualitative assessment)* ▪ Density of bike connections within ¼ mile of stop/station opportunity *(Top 25th percentile, density per square mile)*	▪ Presence of active transportation infrastructure connections, but may provide less or no separation *(qualitative assessment)* ▪ Density of bike connections within ¼ mile of stop/station opportunity *(50th percentile density per square mile)*	▪ Presence of active transportation infrastructure connections, but may provide less or no separation *(qualitative assessment)*	▪ Active transportation infrastructure may be present but incomplete *(qualitative assessment)*	▪ N/A

[1] Future Hubs criteria include additional measures that will illuminate areas other than existing promising locations that may be suitable for a mobility hub in the future. These hubs will not be differentiated by type but will be identified as Potential Future Hub locations based on land use designation, forecast population growth, and presence of likely future Frequent Transit OR HCT service.

Success Factor	Evaluation Criteria	Data Sources /Methods	Typology-Specific *(Potential)* Measures				
			Major Urban Hub	Regional Hub	Town Hub	Local and emerging hub	Future Hubs[1]
	Shared Mobility Connections Existing shared-mobility Integration (e.g., BIKETOWN, scooters)	▪ Vendor data (e.g., BIKETOWN/Lyft) ▪ BTS Docked Bike Trips Dataset (2024) ▪ Jurisdictional data on shared mobility availability	▪ Presence/availability of shared mobility options, such as scooter or bike share *(yes/no)* ▪ Volume of shared mobility trips *(Top 25th percentile)* ▪ May not be present	▪ Presence/availability of shared mobility options, such as scooter or bike share *(yes/no)* ▪ Volume of shared mobility trips *(Top 50th percentile)* ▪ May not be present	▪ May not be present	▪ May not be present	▪ N/A
Land Use + Regional Significance Focus on growth centers and transit-supportive land uses	**Regional centers and Future growth areas**, based on Metro 2040 Growth Concept	▪ Metro RLIS GIS layers (centers, corridors, land use, etc.)	▪ Central City or Regional Center *(yes/no)*	▪ Regional Center or Town Center *(yes/no)*	▪ Town Center, Station Communities, or Corridor land use designation *(yes/no)*	▪ Corridor or Main Streets designation *(yes/no)*	▪ N/A
	Population Density	▪ Census 2019-2023 ACS 5-Year Estimates (population) ▪ TAZ population data for future year (2040)	▪ Top 10th percentile	▪ 20th percentile or greater	▪ 30th percentile or greater	▪ 50th percentile or greater	▪ Top 30th percentile of future population based on Metro travel model TAZ data
	Transit-supportive land-uses (e.g., high density housing, commercial, employment)	▪ RLIS Vacant + underutilized land data ▪ Jurisdiction affordable housing data	▪ Proximity to affordable housing and TOD sites *(1/4-mile buffer)* ▪ Vacant and underutilized lands with TOD potential *(qualitative assessment)*				▪ N/A
Equity + Community Impact Focus on serving historically marginalized	**Serves historically marginalized neighborhoods and equity populations** Presence of equity populations	▪ Metro Equity Focus Areas Layer (identifies Census Tracts of people of color, low-income populations, and limited English	▪ Top 10th percentile	▪ 20th percentile or greater	▪ 30th percentile or greater	▪ 50th percentile or greater	▪ N/A

Success Factor	Evaluation Criteria	Data Sources /Methods	Typology-Specific *(Potential)* Measures				
			Major Urban Hub	Regional Hub	Town Hub	Local and emerging hub	Future Hubs[1]
communities in the region		proficiency-populations					
	Improves access to key destinations like healthcare and education	▪ Metro key destinations GIS layer	▪ Number of key community destinations within ½ mile (ranked)				▪ N/A
	Employment Density Improve connections to employment opportunities	▪ Census 2019-2023 ACS 5-Year Estimates (employment)	▪ Top 10th percentile	▪ 20th percentile or greater	▪ 30th percentile or greater	▪ 50th percentile or greater	▪ Top 30th percentile of future population based on Metro travel model TAZ data
	Serves areas with **streetscape/ placemaking** opportunities	▪ Metro RLIS and jurisdictional data	▪ Proximity to community amenities like plazas, public art, cultural/recreational destinations *(Qualitative assessment)*	▪ Proximity to community amenities like plazas, public art, cultural/recreational destinations *(Qualitative assessment)*	▪ Proximity to community amenities like plazas, public art, cultural/recreational destinations *(Qualitative assessment)*	▪ Proximity to community amenities like plazas, public art, cultural/recreational destinations *(Qualitative assessment)*	▪ Top 30th percentile of future population based on Metro travel model TAZ data
Transit Access Focus on **public transit service and its ability to meet demand.**	**Stop-Level Activity** Average daily boardings and alightings	▪ Most recently available stop-level ridership data from TriMet and other providers	▪ Top 10th percentile	▪ 20th percentile or greater	▪ 30th percentile or greater	▪ 50th percentile or greater	▪ N/A
	Vehicle Ownership: Serves areas with lower vehicle ownership rates	▪ Census 2019-2023 ACS 5-Year Estimates (Commuting)	▪ Census tracts with zero vehicle households (ranked)				▪ N/A

2.4 Step 4: Prioritization

Using the findings and scores from Step 3, we will identify the most feasible and desirable locations for each hub type and prioritize them for further development. This prioritization will also incorporate feedback from the Transit Working Group (TWG) and public input, ensuring that the selected hubs align with both local priorities and regional goals.

Evaluation criteria results will be summarized using a 1–3 scale (1 = Low, 3 = High) in GIS based on referenced data inputs:

- 3 = Excellent: Strong alignment with criteria, few or no barriers.
- 2 = Moderate: Mostly aligns with criteria, with some constraints.
- 1 = Poor: Does not align with criteria and/or has significant barriers.

The team will assign a score to each candidate mobility hub location, and the highest-scoring locations for each hub type will be identified. It's important to note that this score will serve as a foundation for determining priority locations, alongside insights from local plans, feedback from the Transit Working Group (TWG), and public input as not all mobility hub considerations can be easily quantified. This holistic approach ensures that prioritization reflects both quantitative data and community perspectives. Furthermore, mobility hub prioritization and selection of preferred locations will consider a range of 'readiness' considerations, as described below.

2.4.1 Readiness Considerations

In addition to the evaluation criteria described above, readiness and scalability factors will be considered when prioritizing regional mobility hub opportunities. Readiness considers qualitative factors that help determine whether a location is well-positioned for near- to mid-term investment and successful implementation as a mobility hub. These factors go beyond standard transit service metrics and land use characteristics to assess the feasibility, scalability, and potential impact of a hub. Key readiness considerations are summarized in Table 2 below.

Table 2. Mobility Hub Readiness and Scalability Considerations

Readiness Consideration	Description	Potential Indicators
Public-Private Partnership Opportunities	▪ Identify hubs that could benefit from institutional and public-private co-investment to enhance access and services.	▪ Locations serving specific travel markets such as campuses, medical centers, and shopping districts. • Proximity to job centers and commercial hubs that drive transit demand • Acres of nearby land owned by partner agencies or potential partners (public entities, non-profits, etc.)
Transit-Oriented Development Opportunities	▪ Evaluate hub candidates with the potential to expand access to affordable TOD and create broader community benefits.	▪ Locations within existing TOD areas and TriMet TOD Plan sites ▪ Planned or proposed TOD projects in local or regional plans
Scalability Opportunities	▪ Assess hubs with strong potential for development and expansion	▪ Mobility hub opportunities in collaboration with HCT projects planned or underway (e.g., IBR [Interstate Bridge] Yellow Line Extension, 82nd Avenue Transit Project) ▪ Areas with concentrated new development or infill opportunities, particularly public lands ▪ Existing mobility nodes such as bikeshare and scooter stations