



# DRAFT High Capacity Transit Strategy Update

April 2023





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**Project web site:** [oregonmetro.gov/rtp](http://oregonmetro.gov/rtp)

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## INTRODUCTION

### Renewed commitment

The Portland metropolitan area is an incredible place. Our region has vibrant communities, neighborhoods with distinctive personalities, and a world-class transit system. The communities of the Portland metropolitan region have worked together over the past decades to create one of the most livable regions of the country and strive to make our region the greatest place to live, work and play.

Since Portland’s MAX light rail Blue Line service from Portland to Gresham began in 1986 and the 2040 Growth Strategy was adopted in 1995, high capacity transit (HCT) has served as the backbone of the region’s growth and prosperity.

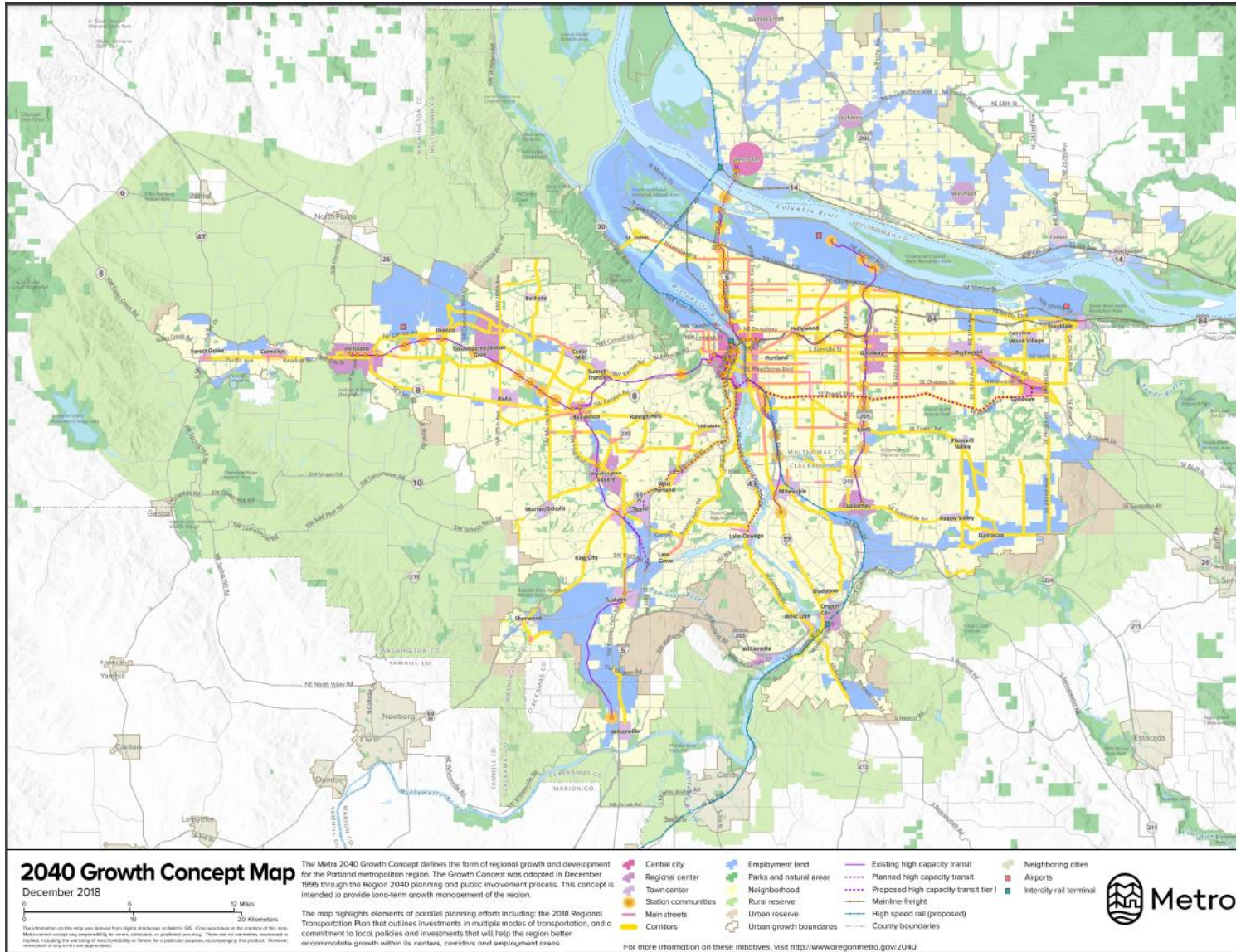
Despite periodic downturns in the economy, competition for resources among many regional needs, and most recently a global pandemic, HCT continues to play a vital role in achieving the region’s goals. With many investments completed and continued work needed to achieve regional land use, economic, climate and safety goals, the region is doubling down on its commitment to HCT. HCT is a proven tool for achieving thriving, compact communities, furthering equity goals, and connecting people to opportunity every day. **This 2023 HCT strategy update reaffirms our regional commitment to HCT as a cornerstone of community development** and provides an actionable vision and plan for advancing HCT across the region. This strategy update recognizes that the region needs to adapt its approach to HCT investments — **rapid bus is a newer approach in this region that presents major opportunities to achieve HCT outcomes in a funding-constrained environment.**

HCT helps the greater Portland region grow in a way that supports healthy, vibrant communities and that preserves farmland and forestland. As envisioned in the 2040 Growth Concept (Figure 1) — the blueprint for how the Portland region grows — HCT plays a key role in connecting people with services, places to shop, work and school. High-quality transit connections also provide viable and affordable alternatives to driving, thus creating better transportation options and making greater Portland more equitable and climate friendly.

#### Rapid bus

This term refers to rubber-tired HCT modes that include bus rapid transit (BRT) and frequent express (FX)-style HCT services. In general, these services offer the core elements of HCT including exclusive guideways, enhanced amenities, and frequent, branded service. Rapid bus is distinct from “better bus” improvements that focus on spot treatments for speed and reliability.

Figure 1. Regional 2040 Growth Concept





This HCT strategy update is part of the Metro Regional Transportation Plan (RTP), which is being updated in 2023. This strategy update:

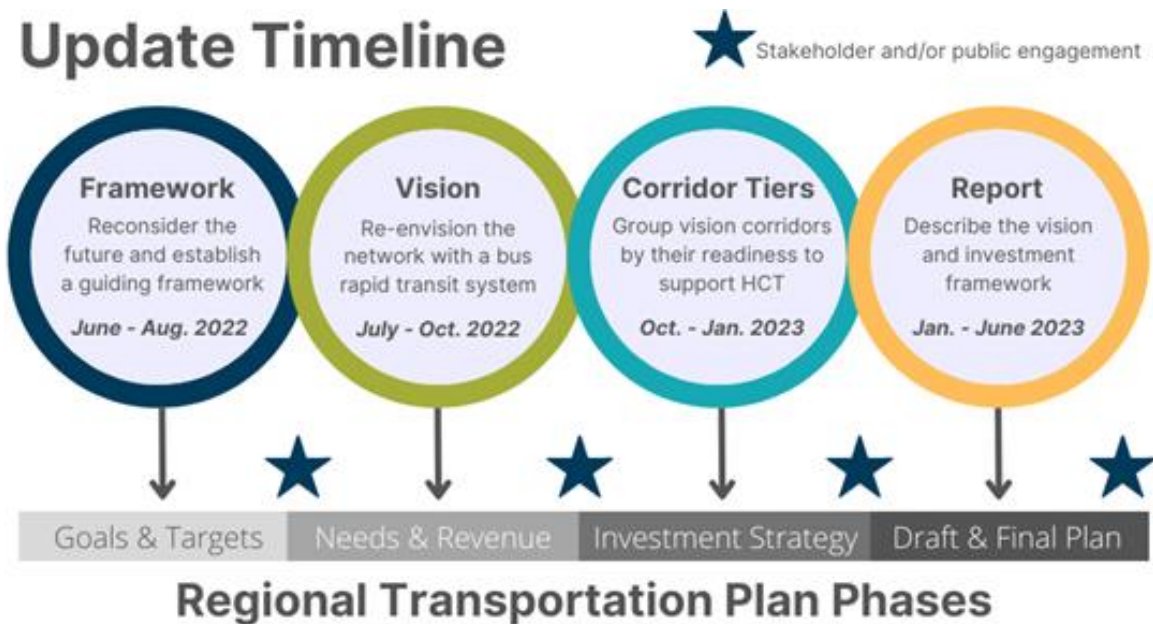
- summarizes the regional vision for HCT investment, strategies for moving HCT corridors forward, and a shared policy framework for supporting and implementing HCT
- identifies and prioritizes corridors to envision where a higher quality of transit service would provide the most benefit to the greatest number of people
- provides a roadmap for realizing the vision for HCT investment to guide near- and long-term decision-making related to HCT investments
- takes into account how the region has grown, how communities and their needs have changed, how transit and travel are different, and how the funding landscape has evolved
- establishes a pipeline of corridor investments helping the region to be competitive for federal funding for HCT
- identifies the steps needed to advance corridor investments working in close partnership with local agencies.

This HCT strategy update is not a comprehensive review of the regional transit structure or its management or a complete service analysis of the existing HCT system. Rather, it provides a vision for continued HCT investment that aligns with the RTP and the regional 2040 Growth Concept. Much future work and commitment are needed to advance the investments described in this strategy.

### **Project process and timeline**

Metro began the HCT strategy update process in the summer of 2022. Figure 2 describes the overall timeline for the project. Metro and TriMet co-led development of this strategy update with significant participation from a working group composed of regional stakeholders: Clackamas, Multnomah, and Washington Counties; Clark County Public Transit Benefit Area Authority (C-TRAN); Oregon Department of Transportation; City of Portland; Portland Streetcar; South Metro Area Regional Transit (SMART); and Southwest Washington Regional Transportation Council.

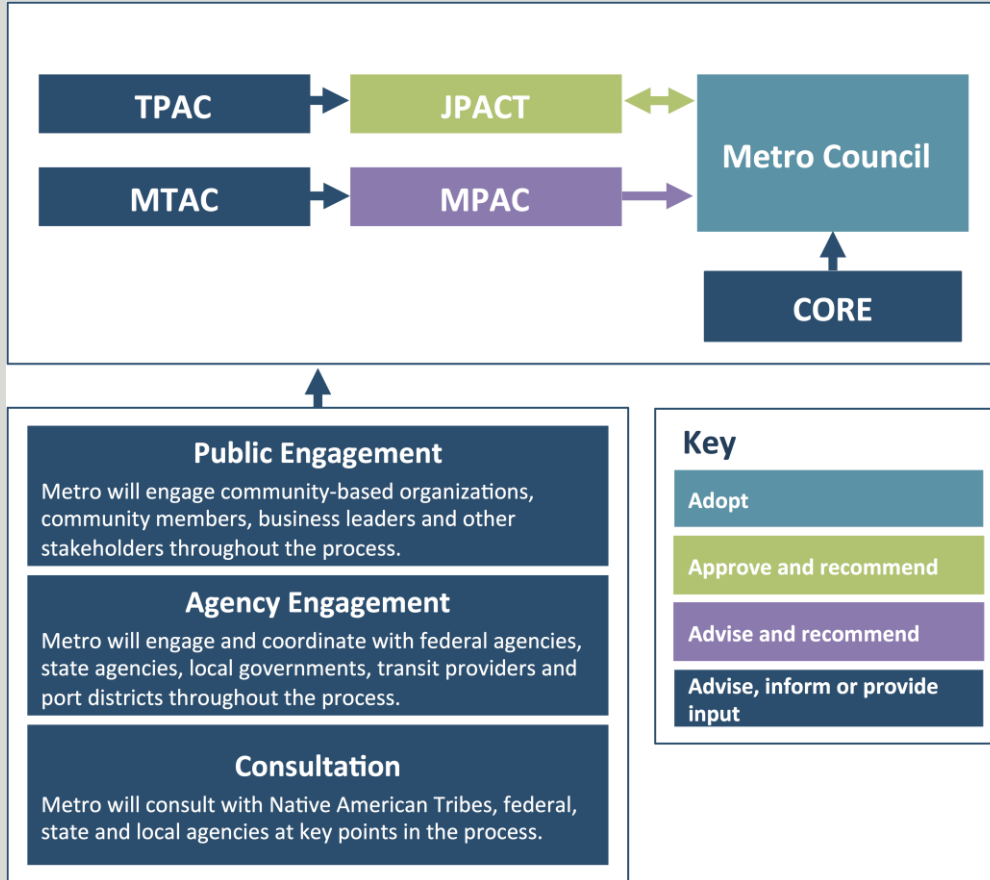
Figure 2. Update timeline



This strategy update was informed throughout by public engagement through tools such as online surveys and open houses, presentations and discussions at dozens of local meetings, and community-led events and workshops. Appendix A includes a summary of this outreach and the input provided. Metro committees were also informed by public and agency engagement when providing input and advising at each milestone in the process.

### Decision-making process

The chart below shows how different groups guided the HCT strategy update process. Ultimately, the Metro Council approves the final 2023 Regional Transportation Plan, which this strategy is a component of.



CORE = Committee on Racial Equity; JPACT = Joint Policy Advisory Committee; MPAC = Metro Policy Advisory Committee; MTAC = Metro Technical Advisory Committee; TPAC = Transportation Policy Alternatives Committee

## **Engaging community**

Community input influenced all major milestones for this strategy through the following activities.

### Surveys

- RTP)summer MetroQuest survey
- winter storymap survey.

### Focus groups and forums

- two joint events: RTP Community Leaders Forum and Westside Multimodal Improvement Study Business Forum
- two meetings with both TriMet's Transit Equity Advisory Committee and Committee on Accessible Transportation
- two meetings with Clackamas County small transit providers
- two agency lessons learned focus groups: Metro/TriMet and C-TRAN
- one small business focus group and one presentation to the Washington County Chamber of Commerce.

### Public events

- nine tabling events held at various locations throughout the region
- three community events and activities held by community-based organization partners such as Centro Cultural, The Street Trust and Verde.

### Advisory committee meetings

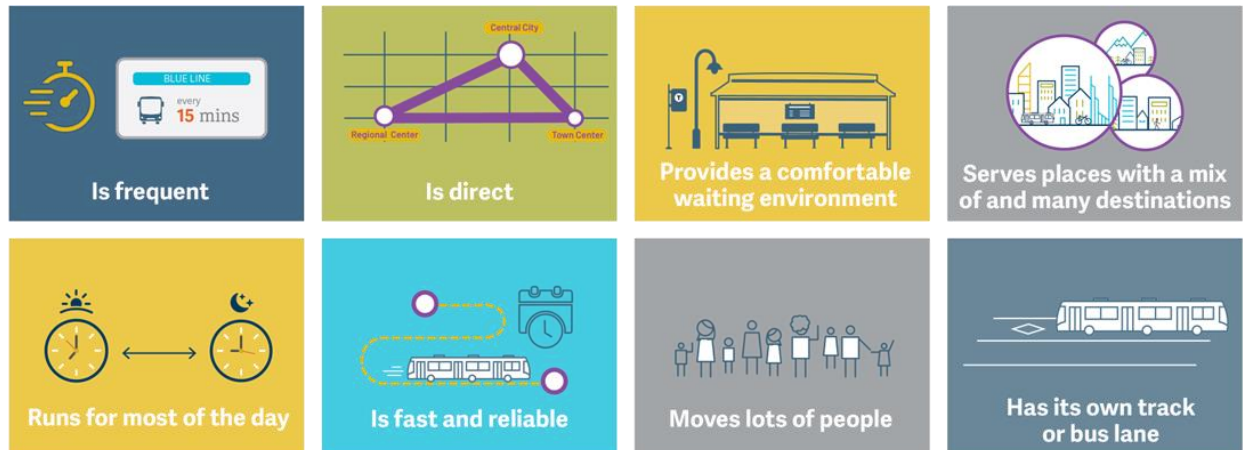
- six meetings with the HCT Working Group
- nineteen meetings with partner jurisdictional staff (Transportation Policy Alternatives Committee; Metro Technical Advisory Committee; Clackamas, East Multnomah, and Washington County Technical Coordinating Committees)
- nineteen meetings with elected officials (Metro Policy Advisory Committee; Joint Policy Advisory Committee; East Multnomah, and Washington County Policy Coordinating Committees).

## HIGH CAPACITY TRANSIT

### Defining high capacity transit

HCT is a type of public transportation that moves a lot of people quickly and often. It provides a higher quality of service with greater benefits to more people with improved convenience and travel time. See Figure 3 for the characteristics of high capacity transit.

**Figure 3. Characteristics of high capacity transit**



### High capacity transit modes

Train-based HCT includes:

- rapid streetcar and streetcar (depending on context)
- light rail transit
- commuter rail and heavy rail.

Rapid bus-based HCT options include:

- bus rapid transit (BRT)
- corridor-based BRT

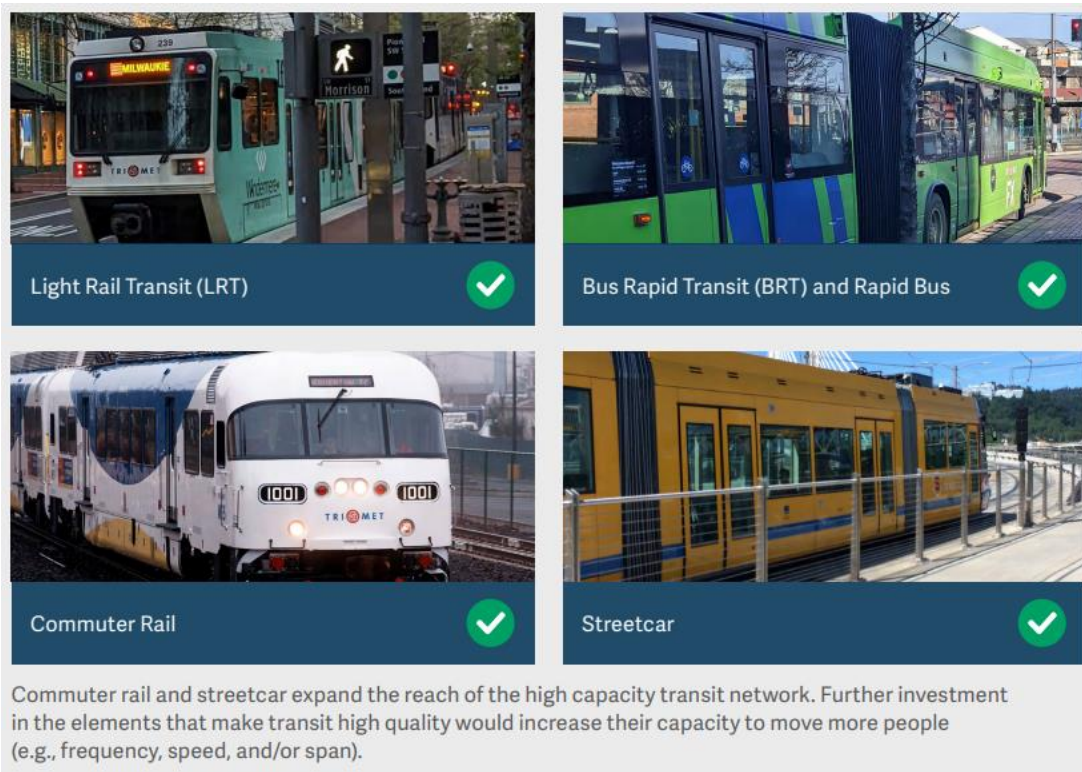
Bus rapid transit is a strategy for serving high-volume corridors with rail-like capacity for a smaller investment. These systems feature distinctive branding, a majority of dedicated bus-only lanes, and passenger amenities such as real-time information systems.

Regardless of mode, HCT investments include:

- some degree of roadway priority
- fast boarding due to off-board payment and multiple-door boarding
- comfortable waiting spaces with real-time information

- limited stops
- improvements to the surrounding streetscape for better pedestrian access.

**Figure 4. High capacity transit modes**



Additionally, this strategy update encompasses other system elements including:

- light rail transit operations improvements
- existing HCT corridor “state of good repair” investments.

While not defined as HCT, TriMet’s Better Bus program (also known as enhanced transit corridor investments), as well as investments in operating the regional frequent service bus network are closely related to and support HCT. These investments include elements of HCT such as high frequency service or speed and reliability improvements, but they are not directly addressed by this strategy update. Many frequent transit corridors and better bus corridors are candidates for HCT investments.

### **Elements that make a transit investment high capacity**

High capacity transit has both a level of enhanced amenities and transit priority — which work together to move more people more comfortably than other types of regional or local transit — that are implemented as part of a corridor-level capital project. The type or mode varies and can include light rail, commuter rail, rapid streetcar, bus rapid transit or corridor-based rapid bus.

Enhanced amenities are features that improve efficiency and enhance the user experience. These include vehicles that are larger and allow boarding from all doors, stations with near level boarding, and frequent service (15 minutes or better). It also refers to amenities such as covered waiting areas, real-time bus or train arrival information, schedules, ticket machines, enhanced lighting, benches, bicycle parking, and even civic art and commercial services. Together, these features make high capacity transit more convenient and comfortable.

Enhanced priority investments are a package of physical features along much or most of a corridor that get people to destinations faster and on time. These include dedicated transit space or lanes in the street, also known as “exclusive guideway.” In our region, MAX light rail vehicles operate on tracks with exclusive guideway while rapid buses operate in a mix of dedicated and shared street space. Rapid bus investments provide priority space for buses on the roadway and/or priority at traffic signals to achieve the transit speed and reliability characteristic of high capacity transit. These investments make transit more attractive for current and future riders.

### **History of regional high capacity transit planning**

In 1974, there was a paradigm shift in how the Portland region addressed growth and approached transportation policy. Following public outcry over the expected cost and the destruction of neighborhoods required for its construction, elected leaders rejected the Mt. Hood Freeway project. Instead, the region set aside plans for 54 new highway projects in favor of a robust network of HCT and developed the 1982 Light Rail System Plan. The region’s first light rail line — the MAX Blue Line — opened in 1986 and heralded in this new era in transportation for the region.

After several expansions in the 1990s and early 2000s, including the MAX Red and Yellow Lines, the Regional High Capacity Transit System Plan was developed in 2009 to guide future regional HCT capital investments. The HCT plan provided a framework on where to spend limited transportation dollars: where local jurisdictions had committed to supportive land uses, high-quality pedestrian and bicycle access, management of parking resources, and broad-based financial and political support. As a result, the region has seen the addition of the MAX Green and Orange Lines and will soon see both the MAX Red and Yellow Lines extended through the A Better Red MAX improvements project (under construction) and the Interstate Bridge Replacement Program MAX Yellow Line extension to Vancouver, Washington (planning). At the same time, planning for the new Southwest Corridor MAX line is moving forward.

The 2018 Regional Transit Strategy (an element of the 2018 RTP) refreshed the region's HCT strategy in advance of a major regional funding measure put to the voters in 2020. This funding measure was ultimately not successful, and funds are still needed to support expansion of the transit network. Since that time, greater Portland's first rapid bus project (FX2-Division) opened, and planning began for two additional rapid bus projects: 82nd Avenue and Tualatin Valley Highway. Rapid bus has provided a new opportunity to think differently about what the region's HCT network could look like in the future. It can be more flexible and cost-effective to implement than light rail and has the potential to move projects more quickly through the federal project development process. Further, it is an opportunity to leverage federal funding. The 2021 Bipartisan Infrastructure Law authorized \$109 billion for transit infrastructure and made more funding available for Small Starts Capital Investment Grant rapid bus projects.



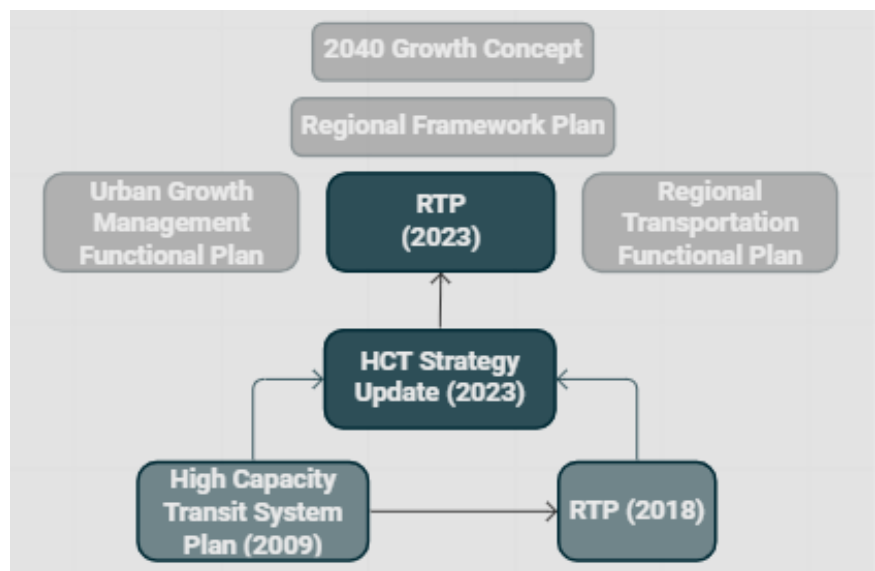
## HIGH CAPACITY TRANSIT POLICY FRAMEWORK

### Role of HCT strategy update within the regional transportation plan process

The Metro 2023 RTP update is the process to refine the region’s transportation investment blueprint for the next 20 years and beyond. The RTP process evaluates the available revenues for transportation spending, assesses the region’s needs, and presents a list of prioritized projects and programs to achieve the Portland metropolitan region’s transportation goals. The RTP recognizes that demand for transportation investments exceeds existing financial capacity; prioritization is necessary to demonstrate fiscal constraint for federal reporting processes and to ensure we take intentional steps in expanding our transportation system.

This HCT strategy update sets the vision and priorities for regional HCT corridors. It falls under the Regional Transit Strategy, which is a part of the RTP that provides the region’s overall vision for meeting future transit needs. As shown in Figure 5, the RTP continues to support the 2040 Growth Concept: the region’s long-range land use and transportation plan for managing growth. The Regional Framework Plan identifies regional policies to implement the 2040 Growth Concept goals.

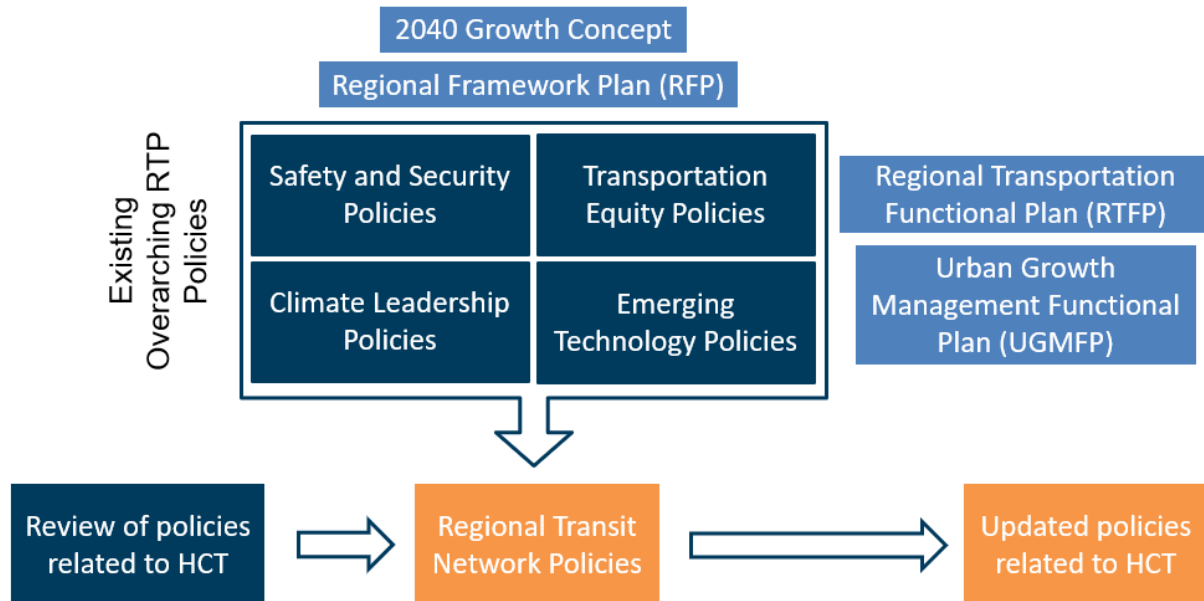
Figure 5. Related regional plans and policies



As shown in Figure 6 below, the RTP includes overarching policies that guide the Regional Transit Network Policies.<sup>1</sup> This HCT strategy update recommends updates to these policies; the updates will guide how Metro evaluates transportation projects including identifying and prioritizing investments that will advance the regional HCT network in a fashion that benefits the most people.

<sup>1</sup> Two “functional plans” – the Regional Transportation Functional Plan and the Urban Growth Management Functional Plan – provide additional guidance to local jurisdictions to implement the policies in the RTP.

Figure 6. Regional transit network policies in relation to the RTP and other Metro plans



As part of this HCT strategy update, plans and policies from state and federal agencies; transit providers including TriMet, SMART, and C-TRAN; and cities and counties in the region were reviewed to document relevant policies or efforts. Appendix C, Policy Framework, provides additional detail on the local and regional plans that were reviewed and their respective relationships to the update.

**Regional transit strategy**

High capacity transit is one part — a key part, but still one part — of the broader transit strategy. It plays a specific role in moving many people quickly along major travel corridors. The regional transit strategy is implemented by improving transit service, investing in transit infrastructure, collaborating between transit providers and local jurisdictions, and expanding transit-supportive elements.

**Transit service improvements** Local and regional transit service improvements designed to meet current and projected demand in line with local and regional visions and plans.

**Capital investments in transit** New enhanced transit strategies such as signal priority, dedicated lanes or HCT options such as rapid bus, light rail, commuter rail or high speed rail.

**Transit supportive elements** Includes programs, policies, capital investments and incentives such as travel demand management and physical improvements such as sidewalks, crossings and complementary land uses.

### **Incorporating community feedback in the policy framework**

**Community stability** Strong support for investments in corridors to maintain housing and business affordability and avoid displacement.

**Safe access to transit** Support for safe and comfortable facilities for walking and biking to transit and for waiting at the transit stop (crosswalks, sidewalks, lighting, bus stop amenities).

**Transit service** Support for more frequent and reliable service. Support for expanding service, particularly to growing areas and town centers in the broader Metro region.

**Broaden access** Better serve community members who are older, who do not speak English, who have mobility challenges or other disabilities, who have health conditions, who are travelling with children, or who are in school.

**Priority corridors** for transportation investments include:

- Multnomah: 82nd Ave., Powell Blvd., 122nd Ave., Downtown Portland
- Clackamas: McLoughlin Blvd., 82nd Ave., Highway 212/Sunrise, Clackamas to Columbia/181st Ave.
- Washington: Tualatin Valley Highway, SW 185th Ave., Burnside/Barnes Road.

### **Other related regional work**

Other recent regional studies, planning efforts or work underway informed development of this strategy and include:

- Mobility Corridors Atlas (2014)
- Strategic Plan to Advance Racial Equity, Diversity and Inclusion and Equity Framework (2016)
- Southwest Corridor Equitable Development Strategy (2017) and Locally Preferred Alternative (2018)
- Division Transit Locally Preferred Alternative (2019)
- Designing Livable Streets and Trails Guide (2019)
- Regional Framework for Highway Jurisdictional Transfer (2021)
- Regional Congestion Pricing Study (2021)
- Transportation System Management and Operations Strategy Update (2021)
- Regional Mobility Policy (2019-22)
- Tualatin Valley Highway Corridor Study (2022-23)
- 82nd Avenue Corridor Study (2023)
- Transit-Oriented Development Strategic Plan Update (2022)
- Emerging Transportation Trends Study (2022)
- Climate Smart Strategy Update (2022)

## Challenges/opportunities

This strategy update revisits investment priorities based on new and emerging regional issues, challenges and opportunities including the possibilities presented by rapid bus, the transit priorities identified through recent work by Metro and partners, and the lessons learned from the work of peer regions and in the wake of the COVID-19 pandemic. This strategy update considers and responds to these recent trends through the updated policies and the HCT vision described in later sections.

### What issues were considered in the 2009 plan?

#### *Our Place in the World*

In 2008, Metro developed the document, *Our Place in the World*, which highlighted global issues that were creating challenges for the Portland metropolitan region at the time.<sup>2</sup> While these challenges were central to the 2009 HCT plan, many are still relevant today and to this strategy update:

- Growth has brought opportunity and prosperity to the region, but it has also brought growing pains.
- Uncertain energy supplies and the rising price of petroleum products affect transportation project costs and household transportation expenses. Increasing costs will make travel more difficult for those of modest means and make it imperative that our transportation system provides affordable transportation choices across the region.
- Expanded transit service will be necessary to reduce the region's impact on climate change and improve air quality.
- Current sources of transit funding are not enough to support system expansions needed to serve the region's rapidly growing ridership.

#### *System design considerations*

The 2009 HCT plan documented a number of considerations regarding the design of the HCT system, many of which continue to be relevant today.

**Grid versus radial system** The 2009 plan identified corridors that would continue to build out a radial HCT network. New cross-region routes that would create a grid connection between markets may become priorities for the region once the radial system is fully realized and/or markets generate enough riders to justify an HCT investment. Grid systems provide additional person-carrying

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<sup>2</sup> Metro, [Our Place in the World](#), October 2008. Pages 23-24 are specific to integrated transportation networks and travel options.

capacity and travel choices but are only feasible if there are enough riders to support parallel lines that are high frequency to minimize transfer time. The FX2-Division line illustrates corridor-based rapid bus as a strategy that can build out the HCT grid.

**Passenger capacity (network density versus coverage)**

Transit vehicle capacity and frequency determine person-carrying capacity. Light rail provides a higher passenger capacity per hour of service. The MAX system was developed to fit downtown Portland’s 200-foot blocks; this limits the light rail trains to two cars. The 2009 plan identified strategies to increase passenger-carrying capacity including increasing frequency on existing lines, adding new lines serving existing corridors, adding parallel lines with minimum one-mile spacing, and considering a tunnel under downtown that would allow longer trains and support faster travel across the region; the region has continued to study a tunnel solution.

**Branching** As the region expands, branching lines from a common route could be considered to serve multiple end-of-line destinations. This strategy remains applicable, particularly for rapid bus lines.

**Rail interoperability** The potential to build streetcar tracks to accommodate MAX trains in specific segments was identified as a consideration to provide system redundancy. Streetcar design standards typically do not allow MAX trains to operate on streetcar tracks. Streetcar and MAX currently interoperate on the Tilikum Crossing bridge, which is also shared with buses. Shared rail and bus segments can maximize the utility of investments in constrained corridors.

**Vehicle features** Low floors, fare payment at stations or on board, multiple wide doorways, and other “universal design” features streamline boarding and alighting and maximize accessibility. As with the frequent express FX2-Division project, an iconic vehicle can become a symbol of the HCT brand that makes it easier for riders to identify and use.

**Service quality** considers the total customer system experience. HCT includes:

- moderate to full transit priority, i.e., speed and reliability
- very frequent service (every 15 minutes or more often)
- long hours of service on weekdays and weekends
- longer station spacing of one-third to one-half mile or more for fast travel time
- high-quality station access is important since HCT stations are farther apart
- high-quality station amenities including shelters and real-time information.

**Appendix B:  
Regional  
Transit Modes**  
summarizes the characteristics of HCT and other regional transit modes

**Land use and urban form** Mixed land uses concentrated within walking distances of HCT stations are critical to fostering walkable communities and successful HCT performance. High-quality transit service and pedestrian access must be in place to realize a significant drop in per capita vehicle miles traveled that occurs as neighborhoods and regional centers transition from a character of closer to 10 persons and employees per acre to one of 25 to 50 persons per acre — an environment supporting rapid bus and light rail investment.

**Transit system constraints** The 2009 plan identified that the Steel Bridge, the Rose Quarter Transit Center and at-grade light rail crossings increase transit delay.

### **What has evolved since the 2009 HCT plan?**

Since 2009, the region’s awareness and level of urgency has heightened around issues including social equity-related disparities based on people’s race and income, housing affordability and displacement, the impacts of climate change and eliminating traffic deaths and serious injuries through the Vision Zero program. The pandemic brought additional transformation around how and where people travel. It has also resulted in more urgent personal safety and health concerns, and has continued to impact how transit is utilized and delivered. This section summarizes takeaways from several recent efforts that analyzed these trends.

#### **An evolving approach to high capacity transit**

Since the 2009 plan was adopted, the regional funding landscape has changed. Federal funding now requires a much more significant match than in the past — typically, 50% as opposed to 10% in past decades. With few dedicated local funding sources, funding for major HCT investments presents a substantial challenge. Rapid bus and related “rubber-tire” HCT investments can provide all the benefits of HCT, often at a reduced cost compared to other modes. While each HCT corridor will go through a refinement process that examines the most appropriate HCT mode, the region recognizes that rapid bus and similar investments represent a cost-effective path forward for introducing HCT in the face of uncertain funding.

#### ***Metro and TriMet Forward Together and Emerging Trends Studies***

In preparation for the 2023 RTP and the Forward Together service plan, Metro and TriMet, respectively, conducted research into current and emerging trends for transportation in the region.<sup>3</sup> Key trends related to HCT that were identified through these efforts are described below.

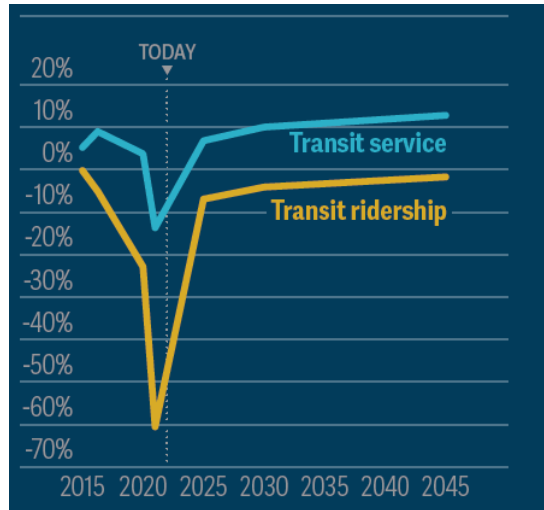
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<sup>3</sup> Metro, Emerging Trends, [Executive Summary](#), October 2022. TriMet, Forward Together, [Existing Conditions and Market Analysis Reports](#), April/May 2022.

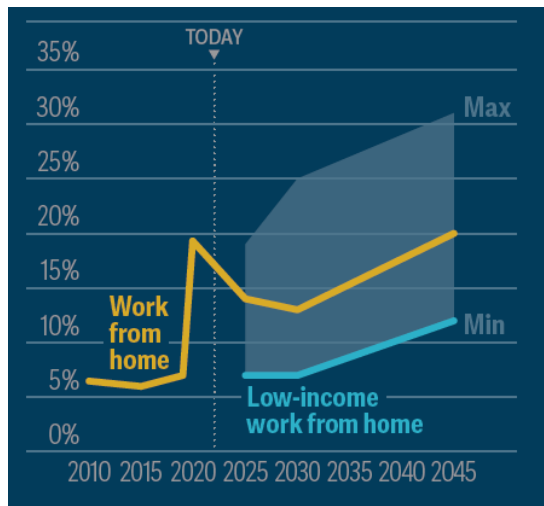
**Declining transit ridership and a gradual recovery** Nationally and on TriMet, transit ridership declined by 4% between 2010 and 2019, although ridership began to increase in the year before the COVID-19 pandemic. Between February and April 2020, regional transit ridership dropped by nearly 70%, and TriMet reduced service by 20%. As of early 2023, ridership is recovering and is expected to be at pre-pandemic levels by 2026 supported by the service plan envisioned in Forward Together (see Figure 7).

**Shifts in when and where transit is needed** Peak commute demand has declined since the pandemic as many people continue to work from home (see Figure 8). But not everyone is able to work remotely, and lower-wage workers are less likely to have that option. The pandemic showed that people in lower-income areas continued to ride transit at higher rates.

**Figure 7. Estimated Service and Ridership Changes, 2021**

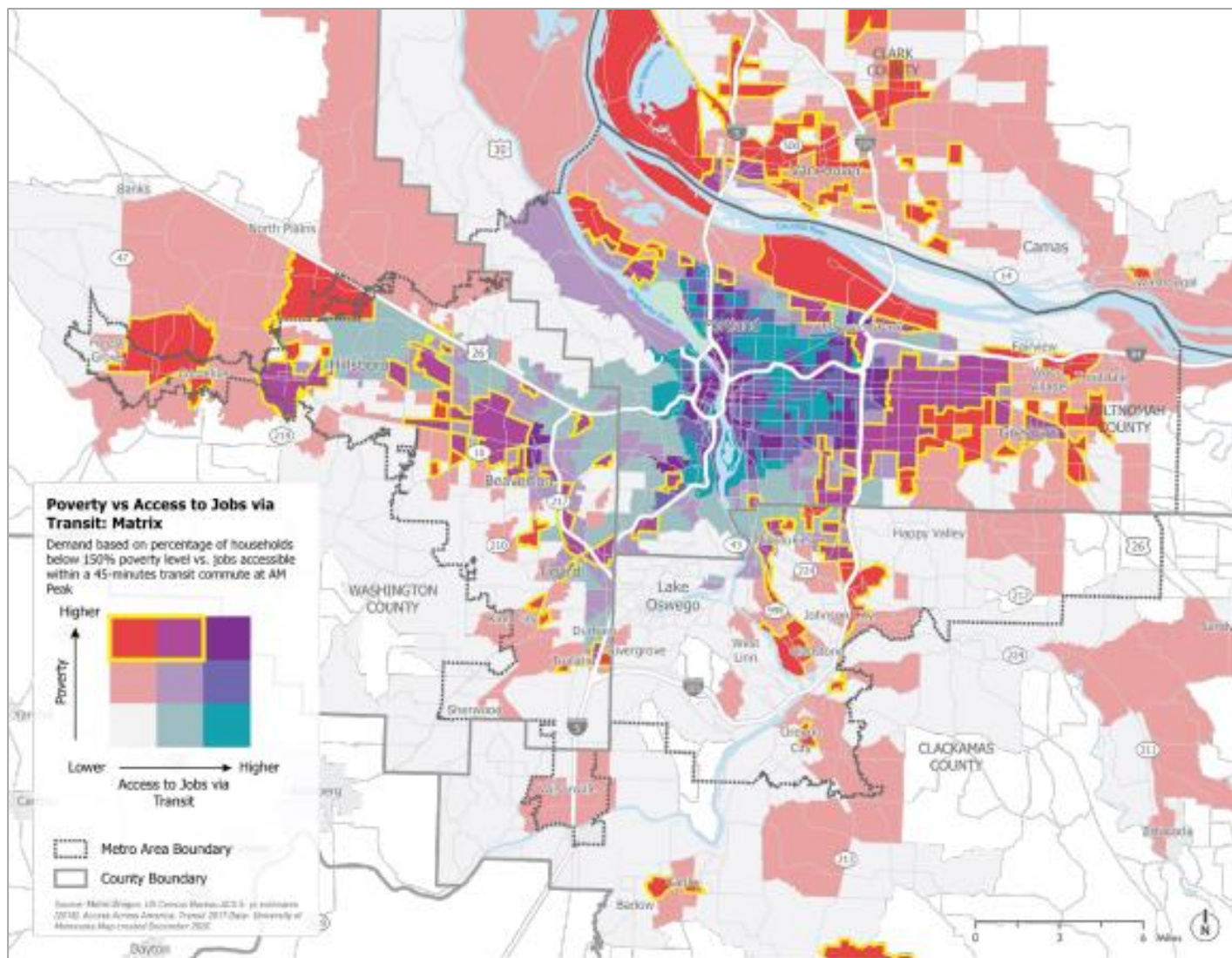


**Figure 8. Oregon Remote Work Levels**



**Disparities in access to jobs and services.** Even before the pandemic, housing costs had pushed lower-income residents and people of color to more affordable outlying areas that tend to be farther from transit and require longer trips to access jobs and services (see Figure 9).

**Figure 9. People with low incomes in relation to transit service (Forward Together<sup>4</sup>)**



<sup>4</sup> <https://trimet.org/forward/>



## Impacts of climate change

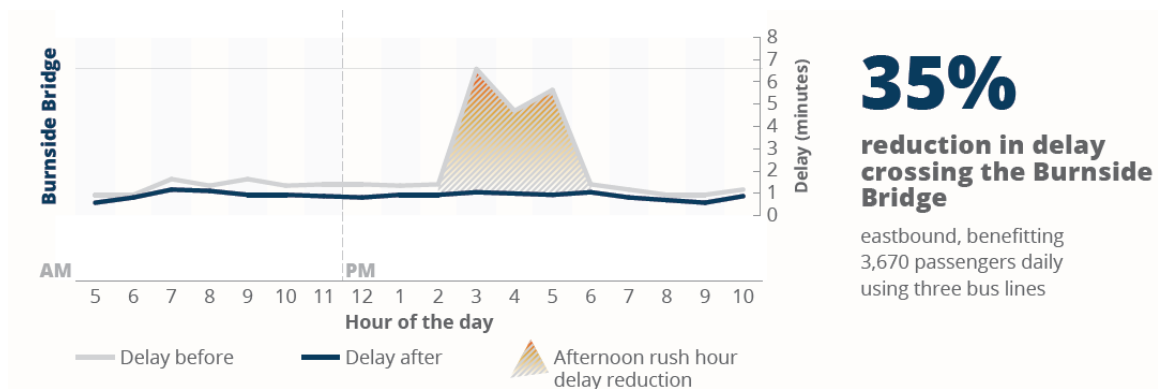
Reducing the impacts of climate change can benefit low-income communities and communities of color who are more likely to live in areas of high flood risk and areas that experience urban heat island effects from a sparse tree canopy.

**Growing and lingering personal safety concerns** Personal safety on transit vehicles is now a top concern of riders. Some potential riders remain concerned about their health and choose not to use transit. The number of people experiencing houselessness has grown, including the numbers of unhoused residents at or near transit stops. Severe injuries and traffic fatalities have also increased in recent years.

Similarly, pedestrian and cyclist safety has declined during and post pandemic. Regional agencies are focused on addressing the root causes, which include an increase in traffic speeding, facility gaps, poor lighting and other issues.

**Improvements to make transit faster, more reliable, and more attractive** TriMet, Metro, the City of Portland (including its Rose Lane Plan) and other jurisdictions have studied hundreds of bus-priority lane and spot improvement projects between 2018 and 2022; more than 50 were implemented. Figure 10 provides an example of the effectiveness of one of these investments: the Burnside Bridge.

Figure 10. Before-and-after effects of Burnside Bridge bus-priority improvements



## Safe and Healthy Urban Arterials

In preparing for the RTP, Metro developed this RTP policy brief describing existing conditions, challenges and policy considerations for urban arterials in the region, which are of high importance for transit.<sup>5</sup> Eight of the 10 highest-ridership TriMet

<sup>5</sup> Metro, [Safe and Healthy Urban Arterials Policy Brief](#), October 2022.

bus routes are on urban arterials that carried 25% of TriMet's ridership in 2020. Takeaways from the report are included below.

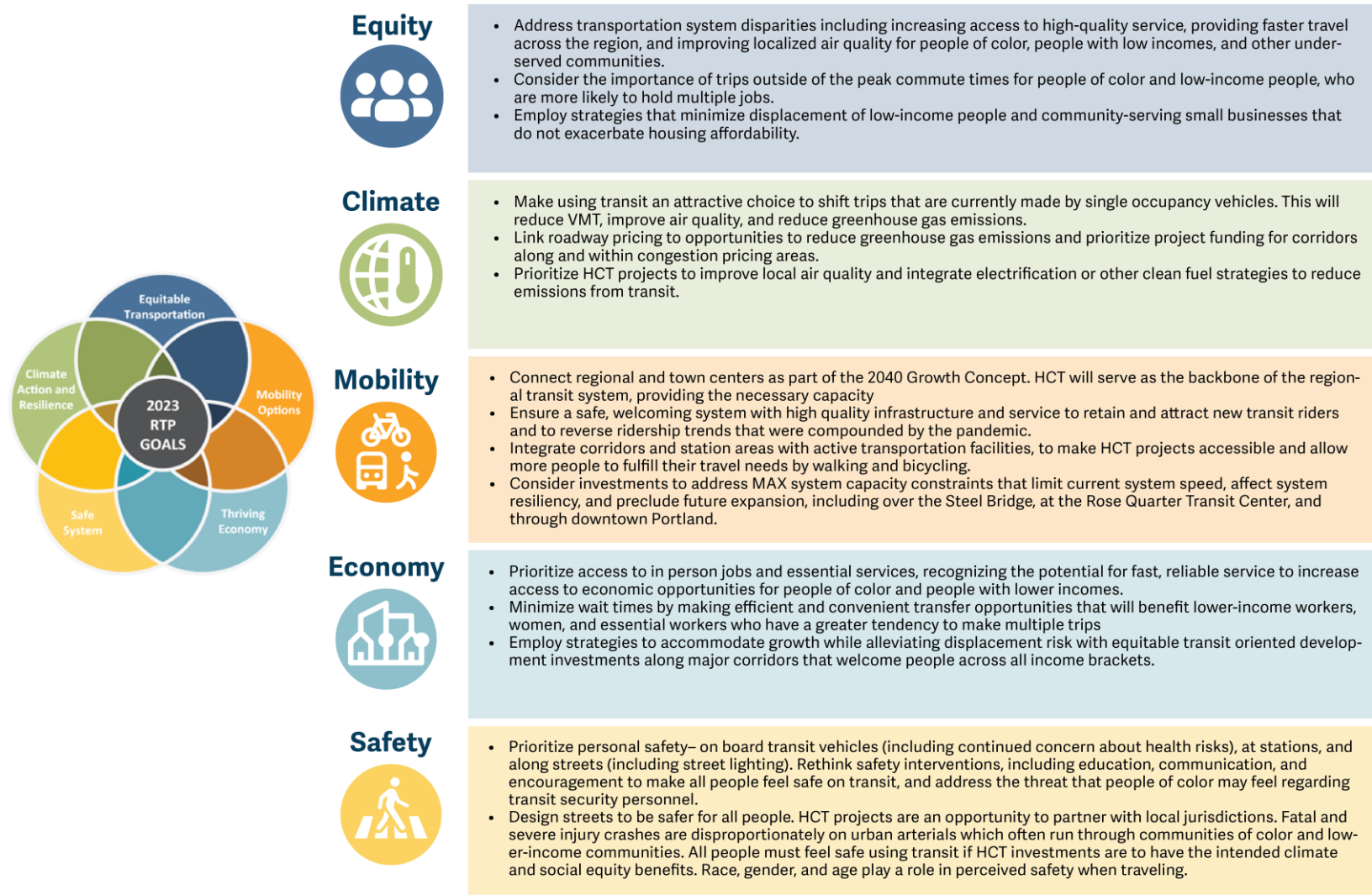
- Urban arterials represent 5% of roadway miles but have over 40% of serious and fatal crashes, as well as a disproportionate number of serious bicycle and pedestrian crashes and fatalities.
- Two-thirds of urban arterials are in areas with higher populations of people of color and people with lower incomes; fatal and severe injury crashes disproportionately affect these communities.
- Urban arterials are critical for implementing the regional growth concept since they serve many of the region's regional centers, town centers and station communities where the most housing and job growth will occur.
- Existing zoning, design and safety deficiencies, outdated standards, lack of funding, and complex coordination are among the challenges to addressing needs and creating thriving centers along urban arterials.

The policy brief identified policy, design and funding challenges for the RTP to address in defining a new approach for urban arterials that addresses equity and safety issues. HCT investments identified for urban arterial corridors could be a key mechanism for coordinating improvements on these streets.

### **Synthesis of challenges and opportunities to be addressed**

Figure 11 below illustrates the five pillars of the 2023 RTP goals and how they relate to HCT opportunities.

**Figure 11. HCT opportunities related to 2023 RTP goals**



## High capacity transit policy framework updates

High capacity transit is the backbone of both the 2040 Growth Concept and Climate Smart Strategy,<sup>6</sup> as well as the foundation for the transit network in the RTP which is a key tool for implementing both documents. The 2040 Growth Concept sets forth a vision for connecting the central city to regional centers such as Gresham, Clackamas and Hillsboro with fast and reliable HCT; these connections will help greater Portland concentrate development and growth in its centers and corridors.

Based on a review of existing regional, state and federal policies; evaluation of the challenges and opportunities described above; and review of policies in similar regions; this strategy update refined the policy framework to better reflect current and future regional priorities and desired outcomes for HCT. Key considerations included:

- prioritizing social equity in transit investments by emphasizing the importance of high-quality service to make transit work for everyone
- addressing climate change as another key priority for transit investment, recognizing that climate and equity are interrelated challenges for the region
- prioritizing maintenance as key to preserving a resilient and reliable system, and
- more clearly addressing the role of the better bus program as a distinct tool for increasing reliability of the transit system.

A key element of the policy framework is defining what HCT looks like in greater Portland and the role that it plays in the regional transportation network. This strategy update recharacterized high capacity transit to:

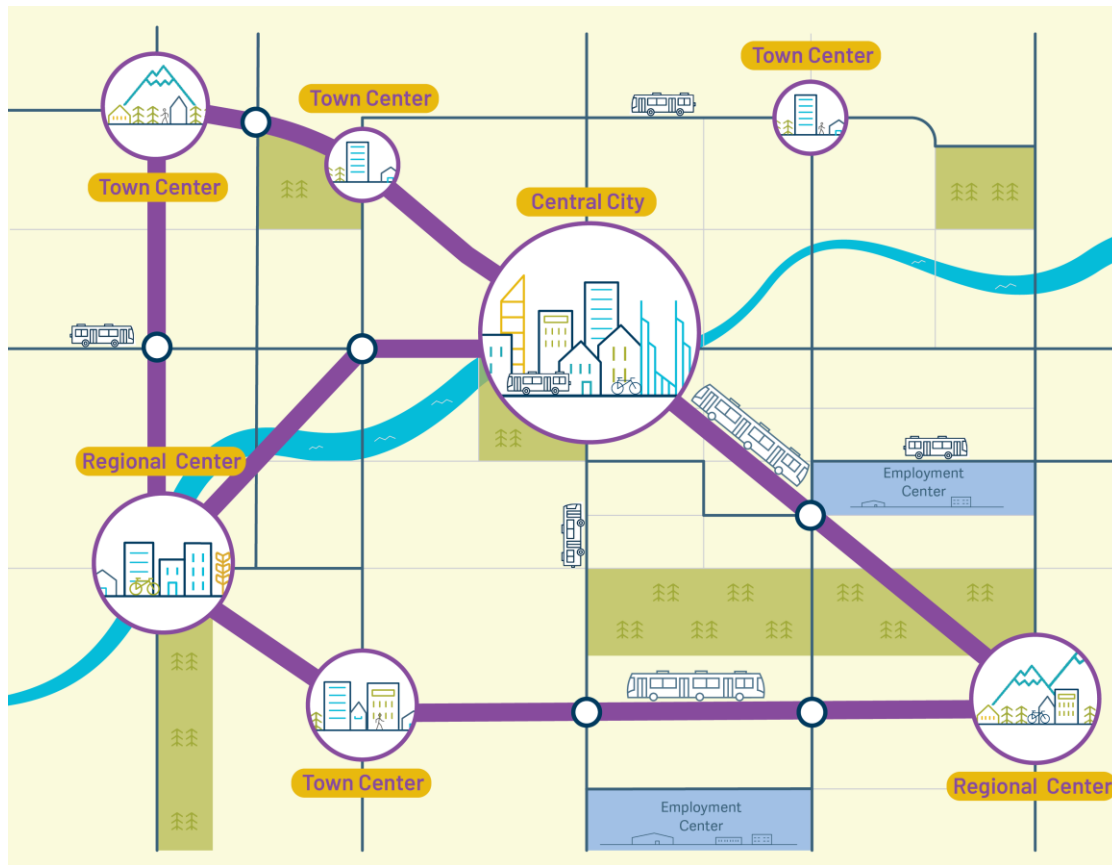
- lead with the *purpose* of HCT, which is to serve as the backbone of the regional transportation (not just transit) network
- expand the *role* of HCT to connecting regional centers and major town centers (see Figure 12)
- integrate *social equity* by emphasizing that HCT should connect people who are marginalized by society (e.g., communities of color), suffer from institutional or structural discrimination or rely on transit (i.e., people of color, limited English proficiency, 18 or under, 65 or over, low-income, differently abled) with high-quality transit
- define the *essential attributes* of high-quality transit as fast, frequent, safe and reliable

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<sup>6</sup> <https://www.oregonmetro.gov/climate-smart-strategy>

- emphasize that HCT provides the needed *capacity* to serve the region's highest demand corridors
- specify the *levels of transit priority*, aspiring to operate in exclusive guideway to the extent possible
- specify the *transit modes* that may be considered, which include corridor-based rapid bus such as the FX2-Division line, that may not have majority exclusive guideway.

**Figure 12. Regional transit network concept**



### **Defining bus rapid transit**

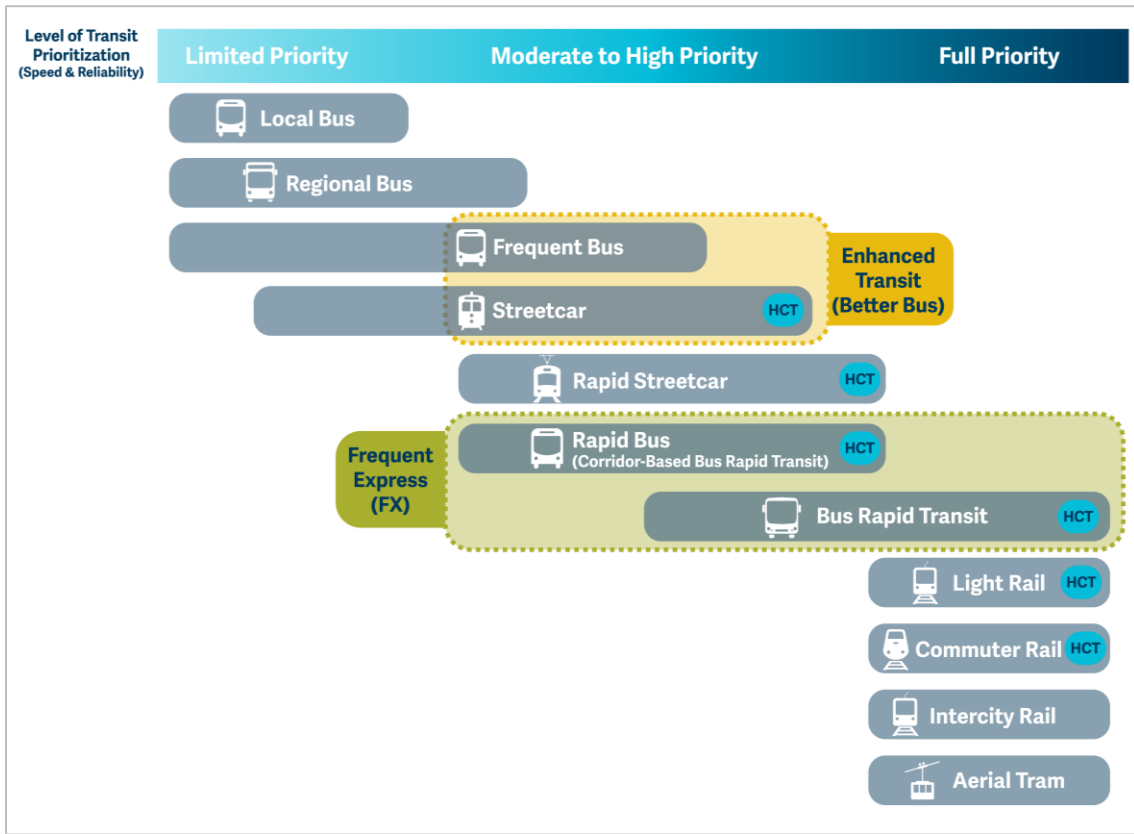
Federal funding has been and will continue to be essential to advancing most HCT corridors. BRT, as defined by the Federal Transit Administration's Capital Investment Grant program, must include:

- more than 50% of the route is in a fixed, separated guideway dedicated for public transportation during peak periods
- defined Americans with Disabilities Act-compliant stations with shelters and route schedules
- solutions for faster travel time at congested intersections
- bi-directional weekday service for at least 14 hours a day arriving at least every 15 minutes all day or 10 minutes at peak and 20 minutes at all other times
- weekend service for at least 10 hours a day arriving at least every 30 minutes all day
- unique branding.

The program also considers projects that are corridor-based BRT. These projects do not have requirements for weekend service, and the corridor does not need to have exclusive guideway. Corridor-based BRT projects must still include the other elements noted above.

Figure 13 below illustrates the modes that are HCT, ranging from light rail or rapid bus (bus rapid transit) with majority exclusive guideway to corridor-based rapid bus with a mix of exclusive and shared right of way (such as the FX2-Division high capacity bus service) to a streetcar mode.

**Figure 13. Spectrum of regional transit modes**



**Better bus: Example of a city-led initiative**

Cities all over Greater Portland can work with TriMet to support shared goals.

The City of Portland developed an Enhanced Transit Toolbox that describes many types of speed and reliability improvements that can be implemented as part of better bus enhancements.

Better bus investments complement HCT by improving the speed and reliability of regional transit and improving access to jobs, services, recreation and other essential destinations in the Metro area. Better bus includes spot treatments that enhance bus speed and reliability, but it does not include the comprehensive corridor investments of HCT. The diagram to the right compares common better bus and frequent express (FX) rapid bus treatments.



## HIGH CAPACITY TRANSIT VISION DEVELOPMENT PROCESS

### High capacity transit vision

The HCT vision is the comprehensive future network of HCT corridors with enhanced amenities and transit priority that work together to move more people, more quickly than other types of regional or local transit. Well-connected and people focused, the vision will create convenient connections between people and jobs, services, commerce and other major destinations (e.g., colleges, hospitals, affordable housing). The vision prioritizes those who depend on transit or lack travel options, particularly communities of color and other marginalized communities.

The vision builds on prior work and:

- reflects the vision and goals adopted as part of the 2023 RTP Update process, described in the HCT policy framework section
- carries forward regional goals and investment priorities using the 2018 RTP HCT Readiness and Assessment criteria developed based on those priorities in partnership with regional stakeholders
- connects regional and town centers to support the 2040 Growth Concept
- maintains consistency with the Federal Transit Administration’s Capital Investment Grant Program project justification criteria
- reflects the greater Portland region’s history of success with the Federal Project Development process (advancing one corridor every 3 years)
- considers investments within the RTP horizon and beyond (thinking toward the next growth concept horizon of 2070)
- contemplates optimal network design (e.g., radial, grid, multihub) and character (e.g., coverage, spacing, intensity).

The vision will take years to achieve, but significant progress has been made in the last 35 years. Some HCT corridors identified are not ready to move forward today; they lack the population density or number of jobs to warrant a major transit investment such as HCT. However, the vision recognizes that these places are where future growth is focused and that as time goes on, they will become viable and important corridors for HCT investment. Other corridors are already clear regional priorities — such as the Southwest Corridor project — where all of the

### Reflecting local and community visions

Community feedback show strong support for the following corridors. This feedback was essential to refining the HCT vision:

- Lombard/Killingsworth
- Martin Luther King Jr. Blvd.
- Cesar Chavez
- Clackamas to Columbia
- Halsey
- Burnside
- Powell
- Highway 212/Sunnyside
- I-205
- McLoughlin
- WES/Route 76 - Beaverton to Wilsonville
- Highway 26
- 185th Avenue
- Highway 99W



right ingredients are in place today. The vision combines all of these corridors, representing the full buildout of the region’s HCT system.

## Evaluation approach

Metro enacted a two-step process, very similar to the 2018 Regional Transit Strategy process. The first step considered a broad universe of potential future HCT corridors and narrowed to those best aligned with regional goals. The second step focused on readiness, or the ability for a given corridor to move forward in the near versus long term. Once the prioritized short list of corridors was identified, community feedback and discussions with regional stakeholders refined the list of corridors and priorities.

The following sections provide a brief summary of the evaluation process; for more details, please see Appendix D, Level 1 Screening, and Appendix E, Readiness Evaluation. The process is illustrated in Figure 14.

**Core evaluation criteria**

**Mobility** Ridership and travel time

**Land use and market support** Urban form, centers and land use

**People and job density** Cost effectiveness

**Operating and capital project cost per rider** Equity benefit and access to jobs and services

**Environmental benefit** Vehicle miles traveled

Figure 14. Regional HCT plan update process

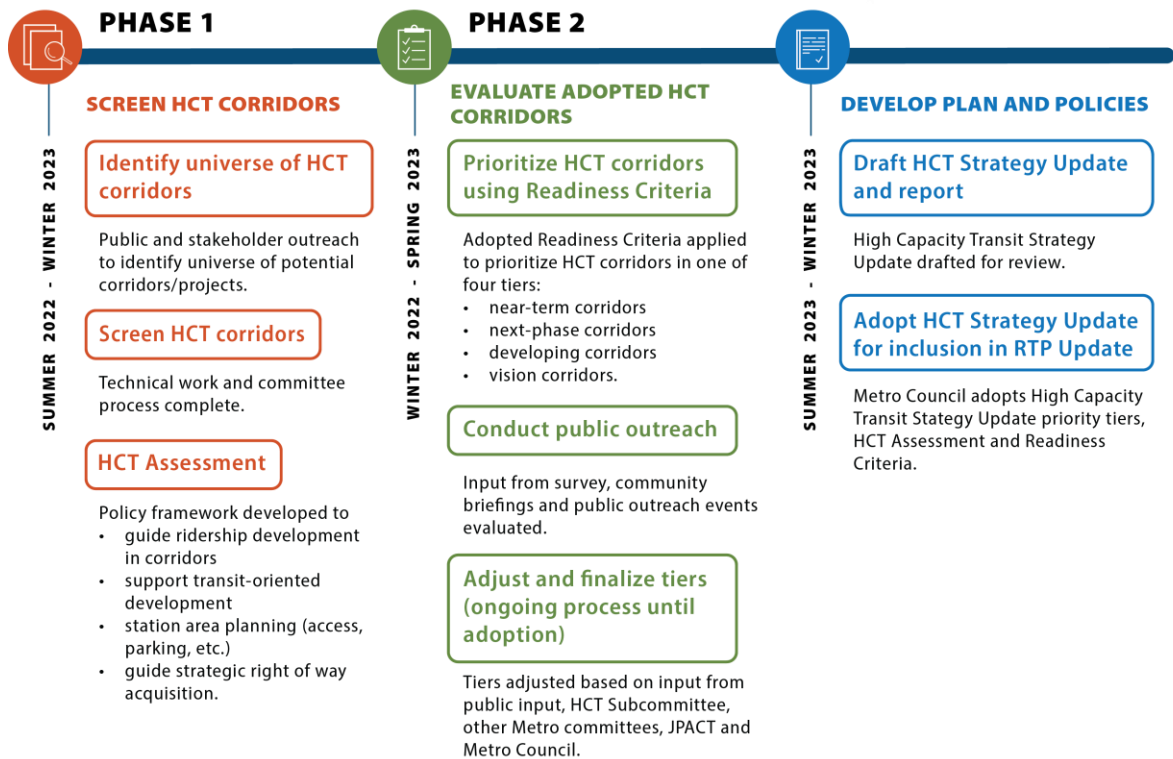
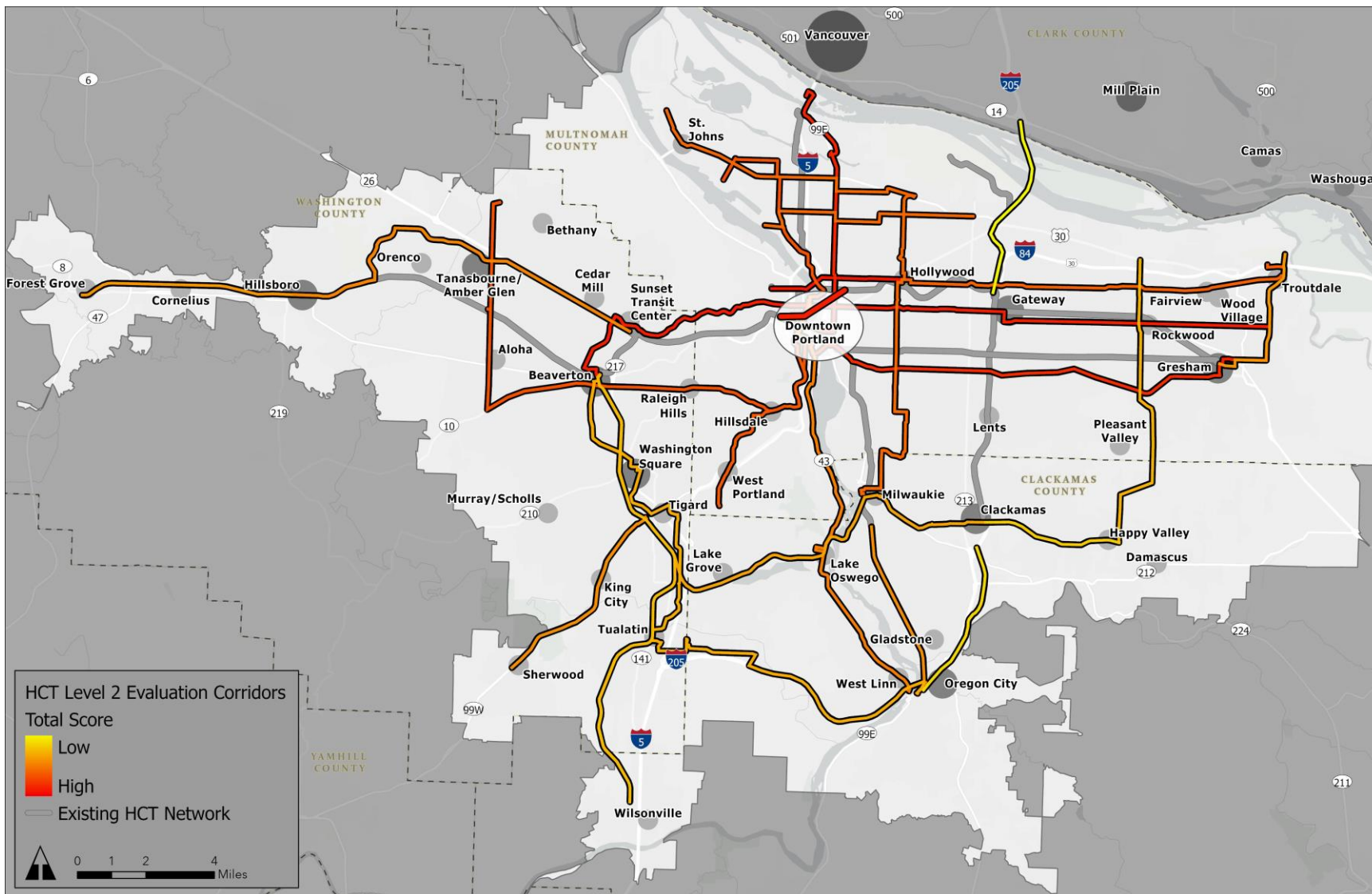


Figure 15 shows the initial scoring from the evaluation which considered the following:

1. Where are more people traveling today and where will they want to travel in the future?
2. What connections link the most people and historically marginalized communities to jobs, essential services and other major destinations?
3. How long does a transit trip in a certain area currently take compared to other travel options? How much could an investment in high capacity transit improve travel?
4. What are the needs and priorities voiced by community members and organizations, businesses, agency partners and elected officials.

The HCT corridors shown are representative; that is, they do not necessarily represent the exact corridor that would advance. Additional work outside of this strategy update is required to define the exact corridor, termini and mode.

Figure 15. Level 2 evaluation corridor scores



## Readiness assessment

To use resources cost-effectively and consistent with regional mobility, equity and environmental priorities, HCT is a tool for connecting centers of activity where a high number of people live, work, and visit. The readiness assessment considered the following factors that are known to contribute to successful HCT corridor implementation and that reflect federal funding priorities:

- very compact urban form (e.g., grid, small blocks) that places destinations and affordable housing options near transit (with limited parking)
- very dense mix of uses and a balance of jobs and housing that create a place where activity occurs at least 18 hours a day
- mix of many and diverse essential services near transit: grocery stores, medical clinics and educational institutions
- well-designed streets and buildings that encourage walking and rolling
- streets with space to accommodate larger buses or trains and that are designed to include elements prioritizing transit
- good street connectivity with safe, direct and convenient access to walk and roll to, from, and beyond transit stops and stations
- local plans, strategies and partnerships that underpin transit-supportive places.

Table 1 shows the readiness criteria used for corridor evaluation.

**Table 1. Readiness criteria**

Category	Metric
Documented Support	Community support Transit-supportive land use Work completed to date
Physical Conditions in the Corridor	Physical space Miles of sidewalks within one-half mile of the corridor, normalized Miles of street with bike facility present within one-half mile corridor, normalized
Implementation Complexity	Corridor length Freight corridor

## HIGH CAPACITY TRANSIT CORRIDOR INVESTMENT PRIORITIES

The strategy update prioritizes corridors to create a pipeline for implementation over time. In the past 30 years, Metro and TriMet have taken on a major investment analysis about every 3 years. This number has increased in recent years as four regional corridor planning efforts have been initiated since the 2018 Regional Transit Strategy was adopted, including two rapid bus projects. More corridors could potentially move forward if additional resources are devoted.

### Prioritized investments

This strategy update identifies near- and long-term regional HCT investment priorities. Mode decisions will be made as corridors enter into the FTA alternatives analysis process, but most corridors assume rapid bus as the primary investment mode.

To distinguish near-term regional priorities from corridors that will need time to develop, a simple set of priority tiers was established. Funding is a major constraint in moving corridors forward both because of federal funding timelines and requirements, as well as a lack of local funding to move projects forward. Obtaining funding through the FTA Capital Investment Grants program, whether Small Starts or New Starts funded, takes 7 or 8 years or more from initiation of a federal alternatives analysis to completion of a full funding grant agreement and construction. Additionally, only those HCT corridors that meet strict federal funding criteria are eligible for federal funding. In most cases, lower-tier corridors do not have sufficient land use, population, and employment density in place to be competitive for increased investment in the short term.

Table 2 shows the HCT vision corridors ranked by priority tier. Near-term regional priority corridors (Tier 1) should be advanced first and work on these corridors is already underway. However, no corridor is guaranteed advancement, and every corridor has the opportunity for rapid advancement by meeting the High Capacity Transit Assessment and Readiness Criteria in the 2023 RTP.

**Table 2. HCT regional priority investment corridors by tier**

Tier	Tier description	Explanation	ID	Corridor	
1	Near-term corridors	Corridors most viable to advance into implementation in next 4 years.	Tier 1 corridors include those with adopted locally preferred alternatives or have active work underway. They were <i>not</i> included in the evaluation detailed in the HCT vision development process section above because the region has already identified these corridors as a priority.	C7	82nd Ave
				C16	Tualatin Valley Highway
				C29	Southwest Corridor
				C30	Interstate Bridge Replacement
				C28	Montgomery Park Streetcar
2	Next-phase corridors	Corridors in which implementation may be viable if recommended land use planning and policy actions are implemented.	Tier 2 corridors scored well on Level 2 and Readiness criteria; they are candidates for HCT investment and could be ready to advance toward implementation in the next 5 years.	C14	Central City Tunnel
				C19	Portland to Gresham via Burnside
				C21	Hayden Island to Downtown Portland via MLK
				C23	Bethany to Beaverton via Farmington/SW 185th
				C25	Beaverton to Portland via Hwy 10 (BH Hwy)
				C20	St. Johns to Milwaukie via Cesar Chavez
				C24	Swan Island to Parkrose
3	Developing corridors	Corridors in which implementation may be viable if: 1. There is additional land use investment; and 2. There is a local champion to support corridor development; or 3. There is interest in development, but land use and ridership potential are not yet supportive.	Tier 3 corridors were those in which more work would be needed before they become candidates for investment. Some scored well on Level 2 but not on Readiness criteria, which may mean that corridors may not yet have sufficient population density/land use policies in place. Alternatively they could have scored moderately on Level 2 and Readiness criteria. These corridors have a longer-term path to implementation.	C1	Portland to Gresham in the vicinity of Powell Corridor
				C22S	PCC Sylvania to Downtown Portland via Capitol Hwy
				C18E	Hollywood to Troutdale
				C11	NW Lovejoy to Hollywood via Broadway/Weidler
				C17S	Oregon City to Downtown Portland via Hwy 43
				C5	Sunset Transit Center to Hillsboro via Hwy 26/ Evergreen
				C27	Park Ave MAX Station to Oregon City in the vicinity of McLoughlin Corridor
				C4	Beaverton - Tigard - Lake Oswego - Milwaukie - Clackamas Town Center
				C6	Beaverton - Tigard - Tualatin - Oregon City

Tier	Tier description	Explanation	ID	Corridor
4	Vision corridors Corridors in which implementation may be viable when projected land use, policy outcomes and projected ridership is in line with HCT investment.	Tier 4 corridors are those that scored lower on Level 2 or Readiness criteria. Additional planning work, and increased land use and population density would be needed to support HCT investment. These corridors may be candidates for other types of investments.	C2 C9 C10 C15 C3 C12 C26 C8	Tigard to Sherwood via Hwy 99W Corridor Hillsboro to Forest Grove LRT extension Gresham to Troutdale LRT extension Happy Valley to Columbia Corridor via Pleasant Valley Beaverton to Wilsonville in the vicinity of WES Clackamas Town Center to Damascus Clackamas Town Center to Oregon City Gateway to Clark County in the vicinity of I-205 Corridor

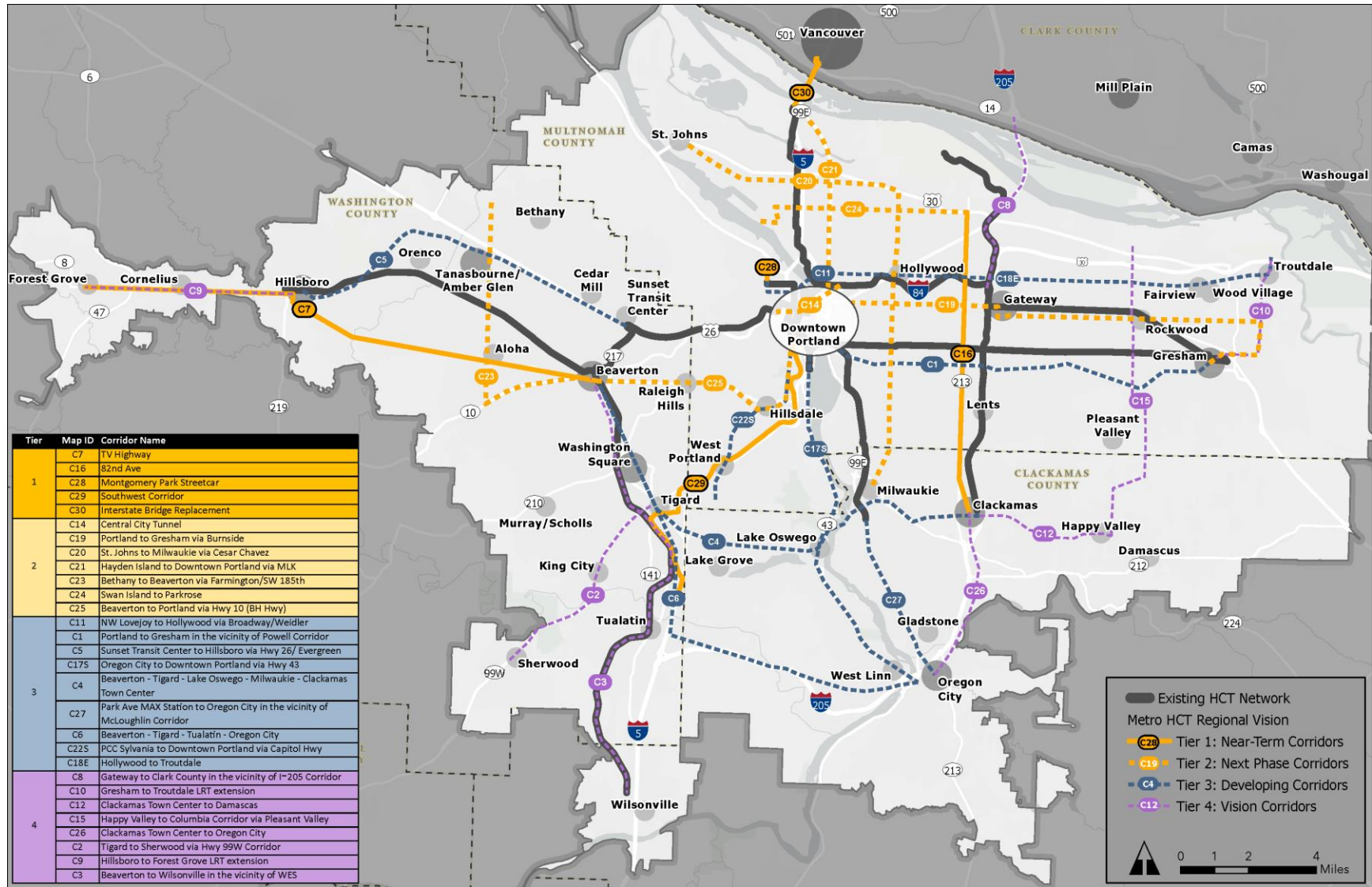
Figure 16 shows the corridors by tier. The corridors shown on this map were used to define and analyze potential HCT investments, but do not necessarily represent the ultimate corridor or termini of any given corridor. Much additional work, described in the next sections of this report, is required to further define and refine these corridors, their HCT modes, and many other components.

#### Community priorities

These vision tiers also reflect community investment priorities which indicated clear need for and interest in high capacity transit solutions for near-term and next-phase corridors for better access to neighborhoods, jobs, and community places. Additional community priorities are focused on making high capacity transit for comfortable to use:

- increasing capacity to reduce crowding
- reducing bus travel and waiting time
- providing lighting, especially at the stop
- installing shelters offering protection from the weather
- ensuring stops are safe to access and comfortable to wait at
- increasing feeling of safety and security on the bus.

Figure 16. HCT regional vision corridors by tier





## IMPLEMENTING THE VISION

### Supporting high capacity transit development







High capacity transit investments take existing strong transit connections to the next level in accessibility and priority on the roadway and at the signal – while shining a light on the corridor in which it travels to improve safety, access and livability for current and future riders. For transit investments to meet success and be utilized to its fullest potential, other elements and improvements around the transit service and infrastructure are needed. The following general types of transit supportive elements factor into creating an environment that encourages transit ridership while meeting regional objectives around equity and affordability:

- land use, urban context, and transit-oriented development
- community stability and resilience
- complete streets: transit access and safety
- transportation demand management policies and programs
- transportation system management and operations
- transit affordability and fare programs.

Figure 17 presents these transit supportive elements and the strategies that can be considered under each.

Figure 17. Overview of transit-supportive elements



						
Element	Land Use, Urban Context, and Transit-Oriented Development	Community Stability and Resilience	Transit Access: Complete Streets, Safety, and Mobility Options	Transportation Demand Management Programs and Policies	Transit Affordability and Fare Programs	Transportation System Management and Operations
Why does it matter?	Density and mixed uses support high-frequency service and modeshare goals	Strategies to ensure existing residents and small businesses benefit from HCT investments	Multimodal streets help people get to and from transit safely	Incentivize alternatives to driving, and increase attractiveness and awareness of transit options	Make transit more affordable and accessible to all people	Make transit a competitive alternative to driving
What does it include?	<ul style="list-style-type: none"> <li>Supportive land uses including mixed use developments</li> <li>Transformation potential through transit-oriented development and higher-density development aligned with 2040 Growth Concept and the community's vision for growth</li> <li>Supportive planning and policies</li> <li>Local commitment to corridor investment</li> </ul>	<ul style="list-style-type: none"> <li>Robust community input and engagement</li> <li>Equitable development and affordable housing strategies</li> <li>Local anti-displacement policies and actions</li> <li>Targeted support for small businesses</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian network completion (sidewalks, crossings, accessibility, lighting, etc.)</li> <li>Bicycle network connections</li> <li>Transit-supportive street design</li> <li>Transit stop and station amenities</li> <li>Mobility hubs</li> <li>Shared mobility options</li> <li>First/last mile connections</li> <li>Shuttles</li> <li>Bicycle parking and storage</li> </ul>	<ul style="list-style-type: none"> <li>Parking policies</li> <li>Education and outreach</li> <li>Employer benefits programs</li> <li>Transportation wallet programs</li> <li>University/school affiliate programs (i.e., student passes, education programs)</li> </ul>	<ul style="list-style-type: none"> <li>Hop fastpass, e.g., enables fare capping and other discount options</li> <li>Reduced Fare Programs: Youth, Low-income, Honored Citizen, and Veterans</li> <li>Free fare grant programs</li> <li>Employer-sponsored transit discount programs</li> </ul>	<ul style="list-style-type: none"> <li>Optimize existing transit system operations and performance</li> <li>Transit-priority treatments</li> <li>Passenger information technology</li> </ul>
When is it done?	All stages	Pre-Project and Ongoing	All stages	Pre-project and ongoing	Pre-project and ongoing	Pre-project, as part of implementation, and ongoing
Who is responsible?	<ul style="list-style-type: none"> <li>Local jurisdictions</li> <li>Metro</li> </ul>	<ul style="list-style-type: none"> <li>Local jurisdictions</li> <li>Metro</li> <li>CBOs (i.e., Community-Based Organizations)</li> </ul>	<ul style="list-style-type: none"> <li>Local jurisdictions</li> <li>Transit service providers</li> <li>ODOT</li> <li>Metro</li> </ul>	<ul style="list-style-type: none"> <li>Local jurisdictions</li> <li>Transit service providers</li> <li>Metro</li> <li>CBOs</li> <li>Employers</li> </ul>	<ul style="list-style-type: none"> <li>Transit service providers</li> <li>Employers</li> </ul>	<ul style="list-style-type: none"> <li>Transit service providers</li> <li>ODOT</li> <li>Metro</li> </ul>

## **The role of community engagement**

Community engagement is a core priority of Oregon communities; it is the first goal in Oregon’s statewide land use goals. Intentional and authentic community engagement conducted throughout the HCT planning process informs project development and can galvanize lasting community support. Engagement improves projects and outcomes by helping hone the problems addressed by HCT corridor investments, avoiding or mitigating impacts, and identifying how the investment can best meet needs.

Buy-in from residents, employees, and other stakeholders living in and around a transit corridor is crucial, underlying each of the six elements presented above. Community engagement creates opportunities for co-creation, giving both agency staff and residents an equal stake in decision-making — jointly designing, planning, and executing project work. A key component of co-creation is centering events designed and led by residents, including **street design workshops, walk audits, and charrettes**. These events cement residents’ ownership of the narrative surrounding their communities and the changes they wish to see.

## **Land use, urban context, and transit-oriented development**

The value of HCT lies in its ability to move large numbers of people at high frequencies. The land uses and development context around station areas are critical to realizing HCT’s full potential. Higher density zoning allows for more people to live, work, and play in proximity to transit, while mixed use developments create a variety of destinations for people to access in one place. This makes transit a convenient and attractive option for large numbers of people, effectively reducing the number of trips needed to be taken by car.

There are many considerations when designing transit-supportive land uses and urban contexts, from local community support to government policies.

**Existing conditions and context.** Many communities feel strongly about the character and role of their neighborhood against the wider urban context, especially those who are at risk of displacement. Existing anchor institutions such as major employment centers or regional destinations will also heavily impact ridership potential. Understanding the needs and concerns of existing residents, businesses, and other stakeholders is crucial to project success.

## **Future transformation potential as imagined under the 2040 Growth**

**Concept and the community’s vision for growth.** Planning solely based on the existing land use and urban context isn’t enough, especially when considering the time and cost of developing transit infrastructure. Supportive land use decisions should be visionary in their approach, factoring in the unrealized potential for further density or growth. Considering the long-term land use vision helps future-

proof HCT investments, ensuring the infrastructure can accommodate future needs, which can save resources in the long term.

**Supportive local planning and policies.** Local and regional jurisdictions can create the legislative space for transit-supportive decisions to be made. The state's Climate Friendly and Equitable Communities amendments to the Transportation Planning Rule require policies such as eliminating parking minimums with new development. Developing station area plans are an early action in corridor development that help tailor local zoning codes and policies to the local context and community-supported vision.

**Commitment to corridor** HCT delivers economic potential to entire corridors, and local jurisdictions should be on-board with the opportunities and impacts that will cascade along the route that transit services will take. This could mean matching local investments, zoning, and redevelopment opportunities to the rights-of-way and urban streetscape throughout the corridor.

#### **Community stability and resilience**

HCT infrastructure brings new and improved travel options to our region. HCT is an important element of our regional transit system and providing people with access to jobs and other opportunities. However, HCT investments can incentivize redevelopment of property along project corridors and have historically led to land value and rent increases. Taking intentional steps to prevent the displacement of local residents and small businesses, particularly those of lower income backgrounds and historically marginalized communities, is an important part of equitably investing in HCT. Building community resilience to change is a complex and multifaceted process and is not limited to one stage of an HCT project's lifecycle. Many elements should be put in motion during early planning, but require ongoing reassessment and engagement.

**Understanding demographic and market trends.** Trends in demographics and market indicators can identify whether a corridor is currently undergoing gentrification and displacement (residential and commercial), and help jurisdictions evaluate the potential risk for further gentrification and displacement that may accompany proposed transit investments, and prioritize policies and programs to mitigate potential impacts.

**Equitable development and affordable housing strategies.** Creating an equitable development framework that guides all land use and development planning in a project corridor helps a community evaluate its guiding principles to ensure that equity is an ongoing part of the planning and development conversation, and includes affordable housing and anti-displacement strategies. The Southwest Corridor Equitable Development Strategy and Equitable Housing Strategy (see callout below) are recent local examples. Metro's transit-oriented

development program is one resource providing funding to stimulate private development of higher-density, affordable and mixed-use projects near transit.

**Local anti-displacement policies and actions** Cities have policy tools that they can deploy to prepare for potential gentrification and displacement. Readiness for HCT includes steps to mitigate that risk through community input, partnerships with local organizations, and allocating funds to support or subsidize projects/programs. Metro is currently scoping an agency-wide, cross-departmental anti-displacement action plan that will also be a resource to regional partners looking to implement local strategies.

**Targeted support for small businesses** As communities change, small businesses benefit from outreach and designated support to ensure they understand the changing market, potential rent changes, and have access to programs that may help them stay in an area. Additionally, support is needed during construction to avoid disrupting local businesses and keep customers coming in the doors.

**[Southwest Corridor Equitable Development Strategy](#) and Equitable Housing Strategy**

Thanks to a Federal Transit Administration grant, Metro worked with partners from the community to explore how a proposed light rail and other investments in the Southwest Corridor could support community development and improve the quality of life for people of all incomes and backgrounds. This process built relationships among government and community members, employers, affordable housing providers, business leaders, philanthropic organizations and educational institutions. It established a new group, the Southwest Equity Coalition, and a pilot project grant program to support continued implementation of the strategy. One element nested within the broader effort is the Equitable Housing Strategy. A joint effort between the cities of Portland and Tigard, the strategy laid the groundwork for early actions to prevent displacement, and plan for more housing options and opportunities in the corridor. It also includes actions for building capacity in under-represented communities for advocacy and public involvement — one example being the SW Community Grants Program funding community-based partners to organize and engage low-income tenants related to affordable housing and transit issues.

These innovative tools can be replicated to create more equitable outcomes as greater Portland plans expansions to the HCT network.

### **Planning for transit-oriented development**

Both Metro and TriMet are working on updates to transit-oriented development plans.

Metro's Transit-Oriented Development Strategic Plan Update is exploring opportunities for better implementing regional racial equity strategies and furthering climate mitigation and resilience goals, including contracting and workforce, community-based organization development partnerships, inclusionary investment decision-making, urban heat island mitigation design requirements, energy efficiency standards, and parking ratios and other traffic demand management incentives. The plan guides transit-oriented development program activities to acquire land and provide gap funding for nonprofit and for-profit private developers to support the construction of higher density buildings in areas served by frequent service bus, streetcar or light rail. Similarly, Metro's Affordable Housing Bond Program allocated 10% of its funds to a site acquisition program where access to transit was identified as the top desired nearby amenity by community.

TriMet's draft Regional Transit-Oriented Development Plan builds on the guidelines approved by the Board of Directors in May 2020 to provide clarity and structure to the Transit-Oriented Development Program. The plan includes information and guidelines for the inventory, evaluation and prioritization of TriMet sites in the transit-oriented development program. It details how TriMet promotes transit-oriented development across the region. Most importantly, the plan empowers communities and partners to provide feedback regarding where transit-oriented development projects are located, how sites are selected, and how decisions are made. The plan is designed to provide transparency to all elements of TriMet's transit-oriented development work and is focused on creating equitable transit-oriented development projects for everyone.

### **Transit access: complete streets, safety, and mobility options**

Most transit trips begin and end with active transportation. The quality of access to transit stops and stations can make a marked difference in the usefulness of transit services. This means investing in the streetscape around transit station areas, completing pedestrian and bicycle networks and to HCT stations, and partnering with mobility service providers to ensure people can safely reach HCT services.

**Multimodal and Complete Streets** Completing the local sidewalk and bicycle facility network, providing wayfinding and street lighting will make it safer for all people to access transit. Promoting disability-friendly transit services means committing to Americans with Disabilities Act-compliant crossings, sidewalks, and curb ramps, as well as transit platforms that offer level boarding onto vehicles. Resources including the National Association of City Transportation Officials [Transit Street Design Guide](#) provide guidance on how city streets can be adapted to serve the needs of all people accessing transit facilities. The Oregon Department of Transportation has also developed updated guidance for accommodating all modes on state highways, the [Blueprint for Urban Design](#).

### **First and last mile mobility options**

Bikeshare, carshare, circulator shuttles, and rideshare are all travel options that can be made available at HCT stations, allowing riders to easily switch between modes and complete the first or last part of their trips. Providing secure bicycle storage encourages bicycle owners to consider riding to and from transit. These travel options and amenities can be integrated with Complete Streets efforts and integrated into mobility hubs — locations where transportation services come together providing options for people to access and comfortably make connections to and from transit.

### **Transportation demand management programs and policies**

For many people, driving (alone) is the default means of travel, especially if existing systems and policies incentivize and subsidize driving and parking. Transportation demand management programs seek to shift trips to travel modes such as transit, active transportation (walking and biking), and ridesharing through incentives that make them more attractive and feasible for everyday trips. A lack of knowledge and understanding of transit is a common barrier to transit use, making strategic distribution of transit information and resources an important element of transit success. Transportation demand

### **Safe and healthy urban arterials**

Another focus area for the 2023 Regional Transportation Plan update is developing safe and healthy urban arterial roadways. State and local transportation agencies have been working to enhance safety on urban arterials for decades. While these corridors serve an important regional mobility function in connecting centers, they are typically more dangerous due to higher speeds, volumes and more travel lanes than minor arterials and are the most complicated roads to make improvements on because they require a lot of coordination and planning. Successful high capacity transit projects have illustrated the capacity of regional partners to coordinate effectively to complete complex, multimodal corridor projects. The safe and healthy urban arterial policy brief identifies strategic actions that regional partners can take to support developing urban arterials as complete streets and increase access to current and planned transit routes.

### **Access to transit study**

An emerging trend in local transit services is using smaller vehicles that range from vans and shuttles to small buses with fixed to flexible routes to fill the gap between traditional bus and rail services, as well as local destinations. In some cases, these services use ride-hailing and other new technologies to provide on-demand micro transit services.

In close coordination with public transit service providers in the region, Metro will explore how these emerging trends improve transit access and convenience, and how they might fit into a broader strategy to fill gaps in transit service that connect people in more suburban areas. This study will make recommendations for consideration in the 2028 RTP update.



management programs come in many different shapes and sizes depending on design and context.

**Employer-based programs** Employers can offer commuter benefits such as subsidized transit passes or bikeshare credit instead of parking permits, which encourages employees to make their regular trips without their cars. Employers are also an important stakeholder to partner with in raising awareness of transit options, and encouraging ridership.

**Municipal and agency policies** Jurisdictions can manage parking supply and parking costs to support the competitiveness of transit. Parking policies that support transit include matching parking pricing to demand, shared parking between uses, unbundling parking from rental and for-sale residential and commercial space, and removing minimum parking requirements for new developments. Transportation wallet programs in the City of Portland are another successful example that incentivizes transit and active transportation use over driving and parking. Establishing parking districts around station areas can be a helpful policy and planning tool to achieve transportation demand management goals.

#### **Transit affordability and fare programs**

For lower-income people, the cost of transportation can be a substantial if not disproportionate financial burden. Per trip transit fares can be high especially for families and for those making frequent short trips. Part of making HCT accessible lies in establishing fare policy that enable more people to choose transit as a regular option. The following considerations can further help price transit competitively to make it an attractive choice for all riders.

**Student and youth fare programs** The majority of students are not in the workforce, and thus lack substantial regular income. Both TriMet and SMART offer reduced fares for students, including community college students. Portland Public School students can ride TriMet free during the school year and there are free summer programs. Partnering with schools, universities, and other community organizations can help publicize fare programs for young people, and encourage more to ride transit and navigate transit.

**Low-income fare programs** TriMet currently offers an Honored Citizen Fare Card, and people with low incomes can apply to use this fare with proof of income and government-issued ID to be submitted either through an online portal or at a designated enrollment location. While TriMet has taken numerous steps to make transit fares more accessible, barriers may still remain particularly those who lack access to a smartphone or availability during weekday business hours. Exploring partnerships with convenience stores and local retailers could help make low-income fare programs more accessible.

## **Transportation system management and operations**

Improvements to the speed and reliability of transit services is one of the most crucial ways to make transit more competitive with driving. Convenience is a key value for many people, and this can be achieved by reducing bus travel times, making transfers more seamless, and providing real time information for people to plan their trips.

**Optimize existing transit network** Many local bus services connect neighborhoods to key corridors, providing a feeder service for HCT. Timing transfers and right-sizing the amount of line duplication will help increase the transit travelshed, optimizing transit coverage and enhancing the rider's experience.

**Transit priority treatments** The Portland Metro region's framework for speed and reliability spot improvements, known as the Better Bus Program, partners with local jurisdictions to make capital investments. Improvements such as transit signal priority, transit-only lanes, queue jumps, and optimizing bus stops can reduce the amount of delay that transit vehicles experience and improve overall travel times.

**Passenger information technology** Real-time passenger information, either presented in a mobile application or on station displays, allow passengers to know when a transit vehicle will arrive. Information is important in helping people make travel decisions, and reduces the uncertainty faced by passengers who are transferring between services.

## **Project development and funding**

### **Federal funding and eligibility**

Federal funding will continue to be an essential component of HCT investment for many corridors in the Portland region. Some rapid bus projects could be delivered sooner and more cost-effectively if new revenues were available. FTA administers several Capital Investment Grants programs including Small Starts, New Starts, and Core Capacity grants. Roughly \$2 billion is allocated annually across all FTA Capital Investment Grant programs:

- Small Starts projects must be less than \$400 million in total cost and seek less than \$150 million in total Small Starts funding
- New Starts projects are greater than \$400 million in total cost and are seeking more than \$150 million in total funding.

Projects must be commuter (heavy) rail, light rail, streetcar, BRT or corridor-based BRT — the primary difference being that rail and BRT projects with fixed-guideway investments must have more than 50% of the route in dedicated transit lanes or other separated right of way. Corridor-based BRT projects do not need to

have exclusive guideway, but must have other elements. To be eligible investments, projects must:

- involve a “substantial” investment on a single route within a defined corridor
- include defined stations
- include features such as traffic signal priority for buses, off-board fare collection, park and ride facilities, etc.
- have short headways, including a maximum of 15 minute headways all day on weekdays and for BRT only, a maximum 30 minute headways on weekends. Corridor-based rapid bus is not required to operate on weekends
- use a separate and consistent brand identity for the service.

Since 1986, the region has been very successful in obtaining New Starts and Small Starts funding through the FTA 5309 Capital Investment Grants program. Partnerships in the region have resulted in approximately \$4.2 billion in transit investments, which includes \$2.29 billion from the FTA 5309 Capital Investment Grants program and nearly \$500 million from other federal sources. New Starts/Small Starts funding are a key part of the financial plan for major transit capital projects in the region. The FTA Capital Investment Grants program has historically contributed between 50% and 90% of project funding through Full Funding and Small Starts Grant Agreements.

Current assumptions and future projections for the 2023 RTP assume that Capital Investment Grants-eligible projects will pursue approximately 50% of project funding from the FTA 5309 New Starts/Small Starts program. This means that local matching funds must be allocated. Additional federal funding may be allocated to cover project costs through the allocation of financially constrained MPO-directed funding (e.g., Urban Surface Transportation Program, Congestion Mitigation and Air Quality, or Transportation Alternatives Program); however, total federal funding for a project cannot exceed 80% of the total project cost.

The local funding commitment typically includes contributions from state, regional and local projects partners. Contributions are discussed and budgeted during the planning and project development phases and range in type from dedication of right of way, lottery-backed bond proceeds, local improvement districts, general fund contributions and others. Non-federal funding contributions are negotiated project by project and typically consider facility jurisdiction, project needs and benefits and opportunities for partnership.

### **Operations Funding**

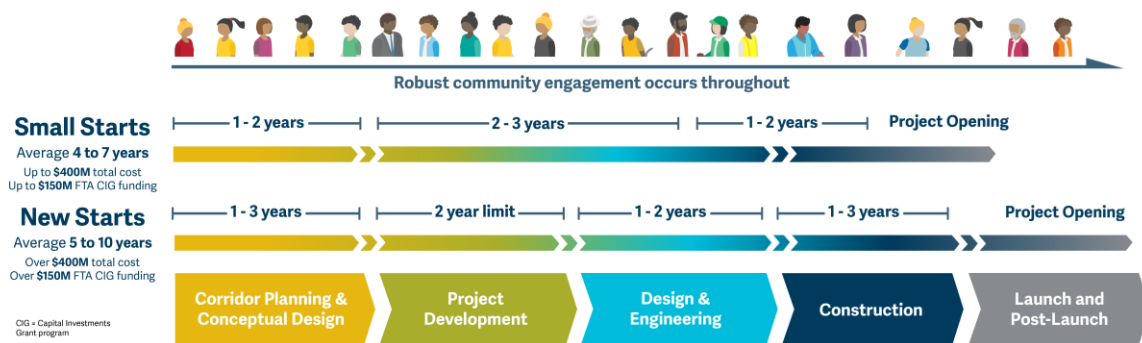
Funding to design and construct HCT corridors is only part of the funding story. Long-term funding is also needed for operations of HCT corridors – ongoing dollars to pay drivers, keep systems maintained, and supported. There are several dedicated sources of funding for transit capital projects, but fewer grant sources for ongoing operations. All HCT corridor projects will need to establish a solid

plan, working with TriMet and others, for long term operations and maintenance of these investments.

### Federal funding process

Projects follow a stepwise process to obtain New Starts or Small Starts funding (**Error! Reference source not found.**). The first major step in the process is submitting a request to formally enter Project Development to the FTA. Prior to making this request, project sponsors typically have completed early planning work in the corridor, have arrived at a locally preferred alternative, and may have started on the environmental review process. The National Environmental Policy Act process is the environmental review, which evaluates the environmental impacts of a project and documents the required mitigations. There is no specific requirement around completing certain activities prior to entering the project development phase.

**Figure 18. Small Starts and New Starts project development timelines**



The project development phase is when substantial design work and the National Environmental Policy Act process are completed, the Small Starts Rating application is submitted, and the funding commitments finalized prior to award of construction funding. Sponsors must show that they have funds available to complete this phase within a reasonable timeframe. FTA also requires submittal of additional information once preliminary design is completed, including a project management plan, refined cost estimates, identification of needed right of way, and completion of value engineering.

Once project sponsors have submitted information to support rating and evaluation of the project, FTA makes recommendations for which projects to fund in the Annual Report on Funding Recommendations. Funding is not guaranteed until Congress and the president have approved the funding requests. Typically, once a project makes it to the annual report, it will receive funding, though it may take several budget cycles to be allocated funding by Congress.

Project development includes:

- locally preferred alternative and RTP adoption, if not completed
- sufficient design and engineering

- National Environmental Policy Act clearance
- project evaluation and rating
- critical third-party agreements
- Requirement that 50% of non Capital Investment Grants funding is committed within 3 years of entering project development
- risk assessment/readiness.

**Error! Reference source not found.** shows a hypothetical timeline for an HCT project that uses federal Capital Investment Grants program funds after completing the process to get to project development. The process can take a minimum of 5 years to complete and typically extends to 7 or more years.

### Moving corridors forward

Figure 19 illustrates the general actions needed to prepare HCT corridors for and advance them through the development process to construction, categorized into five phases. Timelines for each phase will vary depending on project type and complexity.

1. **Pre-project** actions involve improving readiness.
2. **Corridor planning** including determining a preferred alignment and mode, early concept design, and applying to enter into the federal project development process, if applicable.
3. **Project development** includes advancing design, completing environmental review (e.g., National Environmental Policy Act) and securing project funding.
4. **Final design and construction** will result in a completed project.
5. **Post-project** actions may include fostering transit-oriented development, transit network changes, and anti-displacement actions

#### Elevating local voices

HCT investments don't happen without the leadership and engagement of local jurisdictions and partners. Local champions are needed to see projects through, all the way from "good idea" to station construction. Local partners are needed for the long haul, too – projects take years to come to fruition, meaning consistent engagement is key. Local champions and partners are also critical to ensuring transformative HCT investments maximize benefits to the local community, and to guide approaches to mitigating potential impacts like displacement.

Figure 19 also illustrates conceptually where HCT corridors are in the project development lifecycle based on readiness tier.

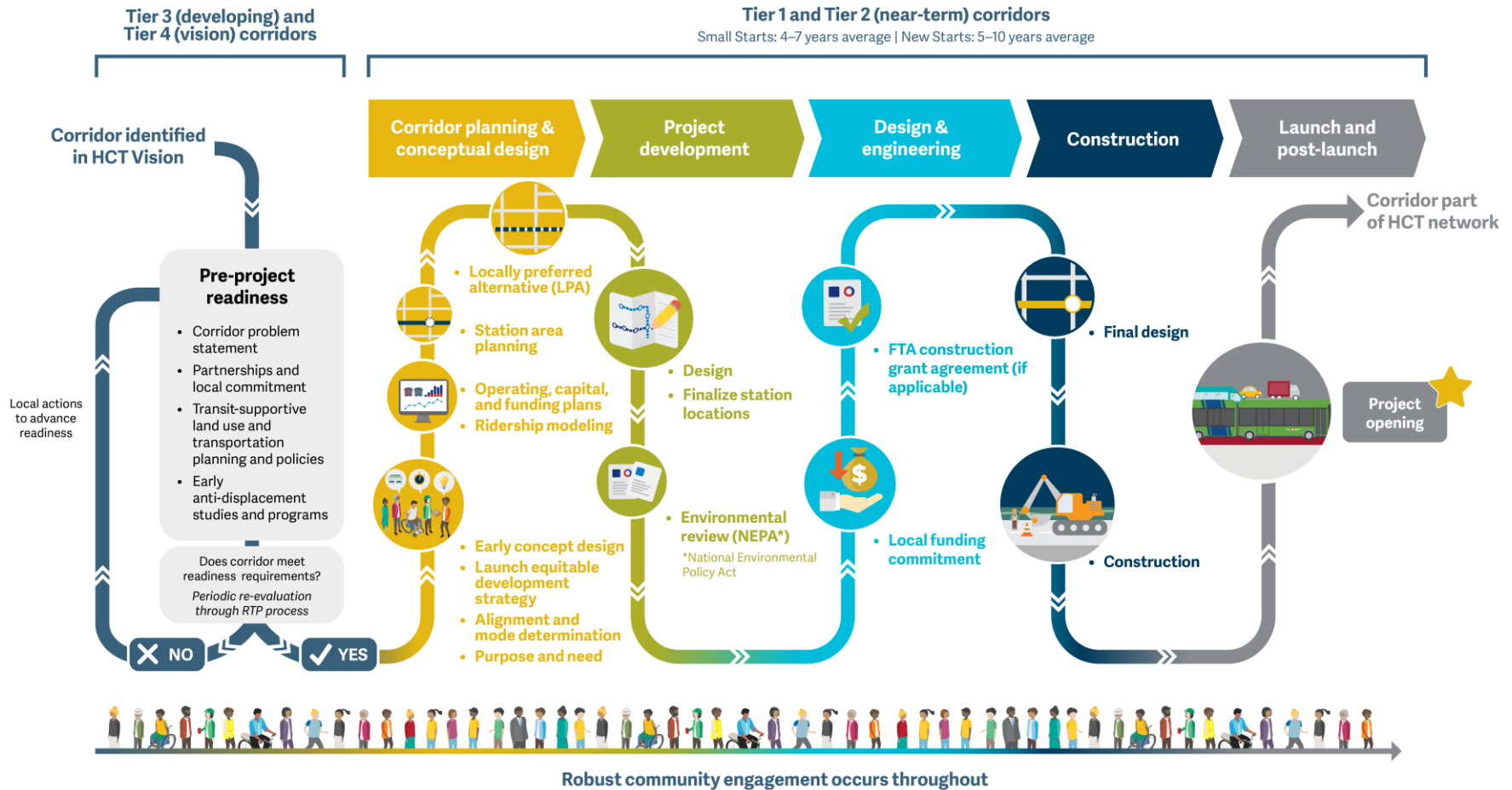
**Tier 1** corridors are already in corridor planning and/or early project development actions.

**Tier 2** corridors are generally ready to proceed with HCT corridor studies, although they may be completing some readiness actions.

**Tier 3 and Tier 4** corridors, in general, are not yet ready to proceed. These recommendations focus on actions to increase the readiness of a given corridor including securing commitments from project partners and early land use planning.

Figure 19. HCT project development lifecycle

# How does a corridor identified in the HCT Vision become a reality?



The general recommendations and actions needed to advance corridors based on readiness tier are broken out by 5-year increments below.

Tier 1 and Tier 2 corridors, in general, are ready to proceed with HCT studies and investment; the recommendations for these corridors are centered on concrete actions to further define the corridors, establish project champions and determine funding.

## **Recommendations**

### **Tier 1 corridor advancement, near term**

- Complete alternatives analysis and select locally preferred alternatives as appropriate.
- Complete NEPA process.
- Collaborate with local and regional partners, including Metro and TriMet, to determine funding approach.
- Foster continued community support and interest by providing regular updates to communities about the status of HCT investments.
- Collaborate with TriMet and Metro on sequencing of major HCT capital investments to ensure adequate staffing capacity is available to move projects forward.
- Collaborate with TriMet to determine operating funding and staffing needs to support the long-term operations of new HCT investments.
- Develop an equitable engagement and development strategy with key community stakeholders and Metro’s Committee on Racial Equity.

### **Tier 2 corridor advancement, near term**

- Update functional classifications in transportation system plans to be consistent with the RTP design classifications to support implementing the 2040 Growth Concept and planned land uses. Commit to applying urban design standards (Blueprint for Urban Design, National Association of City Transportation Officials, Metro’s Designing Livable Streets Guide, approved local standards) on identified corridors in policies and projects. Apply an outcomes and performance-based process that prioritizes safety, transit, walking and bicycling in trade-offs.
- Identify transit corridors in transportation system plans as candidates for HCT investment. Identify constraints or barriers that would need to be addressed to make the corridor “HCT-ready,” such as freight designations, traffic volumes, and presence of cycling and walking facilities.
- Revisit land use plans and zoning to align higher-density uses with planned HCT corridors. Also consider development code and regulations that support transit usage, such as parking standards.



- Define corridor problem statement, refinement planning, and conceptual design to better understand the specific needs in the corridor and establish a shared vision with partners. There are usually corridor needs beyond the HCT investment – project partners must coordinate with other corridor planning processes to understand how improvements will be coordinated.
- Assess corridor against HCT Assessment and Readiness Criteria and make any needed adjustments to support Capital Investment Grants competitiveness.
- Begin identifying funding sources and/or commitments and engaging community about corridor transit needs.
- Build a coalition of local and regional stakeholders to support continued work on the corridor, including to support development of an equitable development strategy.

#### **Tier 2 corridor advancement, medium term**

- Conduct alternatives analysis to develop and vet HCT and related improvements that address the identified problems. Through this process, further define the preferred HCT mode, corridor termini, routing, potential station/stop locations, etc.
- Advance design work in support of alternatives analysis and NEPA.
- Gain further clarity on cost.
- Determine the locally preferred alternative with partners and community.
- Collaborate with Metro, TriMet, and partners to determine the appropriate funding approach. If federal funding is likely, review Capital Investment Grants program criteria and determine areas where the corridor could improve performance with respect to the criteria. This could mean additional changes to development code, adopting policies that encourage development of affordable housing, and others.
- Secure funding and start construction for projects.

Tier 3 and Tier 4 corridors, in general, are not yet ready to proceed. These recommendations focus on actions to increase the readiness of a given corridor.

#### **Tier 3 corridor advancement, near term**

- Identify transit corridors in transportation system plans and ensure roadway classification design supports transit-supportive elements. Identify constraints or barriers that will need to be addressed to make the corridor HCT-ready, such as freight designations, traffic volumes, and presence of cycling and walking facilities. As land use or comprehensive plan updates occur, consider how they can focus growth in key corridors to support HCT investment (and vice versa). Consider the presence of access to transit improvements and the mix of uses and destinations that are supportive of density thresholds that are

supportive of HCT and federal Capital Investment Grants funding program criteria. Consider how HCT would support the local land use vision.

- Develop corridor problem statements and corridor extents.
- Assess corridor against HCT Assessment and Readiness Criteria and look for opportunities to support readiness.
- Build a coalition of local and regional stakeholders to support continued work on the corridor.
- Invest in anti-displacement and housing stabilization before major transportation investments add displacement pressure.

**Tiers 3 and 4 corridor advancement, ongoing**

- Establish project champions, partnerships and political leadership.
- Create ridership development, land use and transit-oriented development plans for key centers and station areas.
- Assess financial feasibility. Conduct early analysis to understand how the corridor aligns with federal Capital Investment Grants funding program criteria and identify areas where improvement or changes are needed.

**Capital Investment Grants land use criteria**

The Capital Investment Grants program assigns a rating to each project based on multiple criteria, spanning land use to financial performance. In general, a project must achieve an overall “medium” rating to be considered for funding.

Capital Investment Grants funding criteria include specific thresholds for employment and household density that contribute to how well a project scores. Additionally, project sponsors must demonstrate that the investment will create new ridership above and beyond the existing corridor ridership.

### **Lessons learned from Division Transit and The Vine**

Fourth Plain in Vancouver, Washington, and Division Transit in Portland, Oregon, are the first rapid bus routes in the region. As the trailblazers, there is much to learn from these projects in looking ahead to building out the rapid bus network.

**While rapid bus is a catalyst for other much needed investments in the corridor** (e.g., sidewalks, housing), there are trade-offs to consider when packaging these investments. To be most successful, these projects should focus on key gaps and mobility needs to be most competitive for federal funding and efficient with local match dollars. Cost capping can be an effective tool for pursuing rapid implementation. Being clear about these trade-offs when identifying an approach is critical at the outset of the process.

**Understand the problems rapid bus is trying to solve** Is it problems with capacity and full buses or with speed and travel time? Knowing that at the outset will help identify the right tools to focus on in the solution in order to set the project up for success.

**Determine what decisions need to be made and who makes those decisions** early on to improve processes and provide greater transparency. Create a funding strategy and address environmental, right-of-way and utility needs earlier than you think you need to. Engage community-trusted stakeholders in decision-making and provide a clear process of two-way communication to influence the process.

**Be context-specific in the approach used and the solutions considered** Rapid bus along Division may look different than rapid bus along Tualatin Valley Highway. Consider opportunities for bus only lanes that can carry more people, more efficiently on a congested corridor. Consider what future transfers might be needed or leveraged.

**Consider how transitioning to electric buses will factor into the needs of the future transit network** and how the network can respond to and create opportunities for more multi-modal trips (e.g., more spaces for mobility devices and bikes on board).

**Plan for a seamless continuity of service during construction** and identify a traffic control plan early on. Be clear with contractors on specifications and how to manage construction to avoid or minimize impacts to communities and businesses. Reach out early and often to communicate any impacts that are expected or do arise.

### **Looking forward**

The region's multi-decade investment in MAX light rail will continue to be the backbone of the regional transit system, connecting the central city and regional centers. As we look forward to advancing new HCT corridors to serve growing population and employment, while meeting our land use goals, new approaches like rapid bus present major opportunities. Rapid bus provides the benefits of HCT at a cost that is more in line with the current constraints on the regional funding landscape, as well as imparting benefits like lower construction complexity and lower risk of displacement. It provides an opportunity to broaden the network and expand connections to town centers and strengthen connections to regional

centers — allowing us to fill the gap where corridors are indicating a readiness for high capacity transit investment in their ability to further the region’s mobility, safety, equity, climate and economy goals. This framework will inform future updates to the region’s long-standing 2040 Growth Concept as we look toward continuing to support compact urban development.

However, in all cases, the best HCT mode for all corridors will be developed through robust corridor planning. Different HCT tools are appropriate depending on context; streetcar in urban corridors, light rail extensions to serve new centers, and rapid bus in constrained corridors, are a few examples. All of these approaches will be considered in light of evolving regional goals and other priorities, including the recently adopted statewide Climate Friendly and Equitable Communities rules, to influence what HCT tool is determined to best for the needs of a given corridor.

The strategy update renews our regional commitment to HCT as an essential tool for achieving many regional goals. To realize these investments and all the benefits they bring, the region will need strong partnership, local champions, and engaged communities to ensure HCT maximizes value to everyone in our region.

If you picnic at Blue Lake or take your kids to the Oregon Zoo, enjoy symphonies at the Schnitz or auto shows at the convention center, put out your trash or drive your car – we’ve already crossed paths.

So, hello. We’re Metro – nice to meet you.

In a metropolitan area as big as Portland, we can do a lot of things better together. Join us to help the region prepare for a happy, healthy future.

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