Agenda

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

Meeting: Metro Technical Advisory Committee (MTAC)
Date: Wednesday, January 18, 2023
Time: 9:00 a.m. to 12:00 p.m.
Place: Virtual meeting held via Zoom
Connect with Zoom
Passcode: 863801
Phone: 877-853-5257 (Toll Free)

9:00 a.m.	**Call meeting to order, Declaration of Quorum and Introductions**	Chair Kehe
9:15 a.m.	**Comments from the Chair and Committee Members** • Updates from committee members around the Region (all)	
9:20 a.m.	**Public communications on agenda items**	
9:25 a.m.	**Consideration of MTAC minutes, November 16, 2022 (action item)**	Chair Kehe
9:30 a.m.	**High Capacity Transit Strategy Update: Corridor Investment Readiness Tiers** Purpose: Provide an update and seek feedback on the work done to date with partners to revise the draft policy framework, re-envision the network, and identify corridor investment priorities, as well as talk about next steps for identifying community priorities and readiness considerations and developing the report for this key policy focus area for the 2023 Regional Transportation Plan (RTP) Update.	Ally Holmqvist, Metro
10:15 a.m.	**Urban Growth Boundary (UGB) Decision; background and history** Purpose: Provide background for the upcoming 2024 Urban Growth Management decision and the process used in the past for these important regional decisions. The Metro Council, with a recommendation from MPAC, must adopt an Urban Growth Report and review the growth boundary for expansion at least every six years. The last process was completed in 2018 and the next decision must occur by 2024	Ted Reid, Metro
11:15 a.m.	**Adjournment**	Chair Kehe

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ការគោរពសិទ្ធិពលរដ្ឋរបស់ ។ សំរាប់ព័ត៌មានអំពីកម្មវិធីសិទ្ធិពលរដ្ឋរបស់ Metro ឬដើម្បីទទួលពាក្យបណ្តឹងរើសអើងសូមចូលទស្សនាគេហទំព័រ www.oregonmetro.gov/civilrights។
បើលោកអ្នកត្រូវការអ្នកបកប្រែភាសានៅពេលអង្គប្រជុំសាធារណៈ សូមទូរស័ព្ទមកលេខ 503-797-1700 (ម៉ោង 8 ព្រឹកដល់ម៉ោង 5 ល្ងាច ថ្ងៃធ្វើការ) ប្រាំពីរថ្ងៃ ថ្ងៃធ្វើការ មុនថ្ងៃប្រជុំដើម្បីអាចឲ្យគេសម្រួលតាមសំណើរបស់លោកអ្នក ។

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2023 Metro Technical Advisory Committee (MTAC) Work Program

As of 1/10/2023

NOTE: *Items in* ***italics*** *are tentative;* ***bold*** *denotes required items*

All meetings are scheduled from 9am - noon

MTAC meeting, January 18, 2023 Comments from the Chair • Committee member updates around the region (Chair Kehe and all) Agenda Items • High Capacity Transit Strategy Update: Corridor Investment Readiness Tiers (Ally Holmqvist, Metro; 45 min) • Urban Growth Boundary (UGB) Decision background & history (Ted Reid, 60 min)	**MTAC/TPAC joint workshop, February 15, 2023** Agenda Items • Climate Smart Strategy Discussion (Kim Ellis, Metro; 60 min) • Draft Urban Growth Boundary (UGB) work plan (Ted Reid, Metro; 60 min) • *Integrating Construction Careers Pathways in Metro's transportation work (TBD, Metro; 60 min)*
MTAC meeting, March 15, 2023 Comments from the Chair • Committee member updates around the region (Chair Kehe and all) Agenda Items • UGB discussion topic: demographic trends, housing growth, etc. (Ted Reid; 45 min) • 2023 RTP Preview of Draft Chapter 3 (policy) (Kim Ellis, Metro; 45 min)	**MTAC/TPAC joint workshop, April 19, 2023** Agenda Items • 2023 RTP: Draft High-level Project Assessment and System Evaluation Measures (Eliot Rose, Metro; 90 min) • 2023 RTP: Draft Chapter 3 (Policy) – continue discussion (Kim Ellis, Metro; 60 min)
MTAC meeting, May 17, 2023 Comments from the Chair • Committee member updates around the region (Chair Kehe and all) Agenda Items • High Capacity Transit Strategy Update: Draft Report (Ally Holmqvist, Metro; 30 min) • UGB discussion topics: Middle housing, development outcomes in centers and past UGB expansion areas, etc. (Ted Reid, Metro; 45 min) • 2023 RTP: report on project list input and draft system analysis: climate, mobility and equity policy outcomes (Eliot Rose, Metro; 45 min)	**MTAC/TPAC joint workshop, June 21, 2023** Agenda Items • Climate Smart Strategy Discussion (Kim Ellis, Metro; 60 min) • Possible Urban Growth Boundary (UGB) topic, (Ted Reid, Metro, 60 min)
MTAC meeting, July 19, 2023 Comments from the Chair • Committee member updates around the region (Chair Kehe and all) Agenda Items • UGB discussion topics: Employment forecast process & industrial readiness (Ted Reid, 45 min) • 2023 RTP update (Kim Ellis, Metro; 45 min)	**MTAC/TPAC joint workshop, August 16, 2023** Agenda Items • 2023 RTP: Begin discussion on public comments on Public Review Draft RTP, Project List and Appendices (Kim Ellis, Metro; 60 min)

MTAC meeting, September 20, 2023 Comments from the Chair • Committee member updates around the region (Chair Kehe and all) Agenda Items • Draft regional buildable land inventory (Ted Reid, Metro; 60 min) • 2023 RTP: Draft Public Comment Report and Recommended Changes (Kim Ellis, Metro; 60 min)	**MTAC meeting, October 18, 2023** Comments from the Chair • Committee member updates around the region (Chair Kehe and all) Agenda Items • Draft regional buildable land inventory (continued) (Ted Reid, Metro; 45 min) • **23-XXXX - 2023 RTP** Recommendation to MPAC (Kim Ellis, Metro; 90 min)
MTAC meeting, November 15, 2023 Comments from the Chair • Committee member updates around the region (Chair Kehe and all) Agenda Items • UGB discussion topic: Town & regional centers and CFEC (Update to Title 6) (Ted Reid, Metro; 60 min)	**MTAC meeting, December 20, 2023** Comments from the Chair • Committee member updates around the region (Chair Kehe and all) Agenda Items • State of the Centers update (Ted Reid, Metro; 60 min)

Parking Lot/Bike Rack: Future Topics (These may be scheduled at either MTAC meetings or combined MTAC/TPAC workshops)

- SW Corridor Updates
- Status report on equity goals for land use and transportation planning
- Regional city reports on community engagement work/grants
- Regional development changes reporting on employment/economic and housing as it relates to growth management
- Update report on Travel Behavior Survey
- Updates on grant funded projects such as Metro's 2040 grants and DLCD/ODOT's TGM grants. Recipients of grants.
- Transit-Oriented Development (TOD) annual report/project profiles report
- Reports from regional service providers affecting land use and transportation, future plans
- Best Practices and Data to Support Natural Resources Protection
- Employment & industrial lands
- 2040 grants highlights update
- 2024 UGB cycle

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Meeting minutes

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

Meeting: **Metro Technical Advisory Committee (MTAC) meeting**

Date/time: Wednesday November 16, 2022 | 10:00 a.m. to 12:00 p.m.

Place: Virtual video conference call meeting via Zoom

Members Attending	**Affiliate**
Tom Kloster, Chair	Metro
Carol Chesarek	Multnomah County Citizen Representative
Tom Armstrong	Largest City in the Region: Portland
Scot Siegel	Largest City in Clackamas County: Lake Oswego
Aquilla Hurd-Ravich	Second Largest City in Clackamas County: Oregon City
Laura Terway	Clackamas County: Other Cities, City of Happy Valley
Jamie Stasny	Clackamas County
Chris Deffebach	Washington County
Neelam Dorman	Oregon Department of Transportation
Laura Kelly	Department Land Conservation and Development
Gery Keck	Tualatin Hills Park & Recreation District
Cindy Detchon	North Clackamas School District
Tara O'Brien	TriMet
Bret Marchant	Greater Portland, Inc.
Sara Wright	Environ. Advocacy Org: OR Environmental Council
Preston Korst	Home Builders Association of Metropolitan Portland
Mike O'Brien	Mayer/Reed, Inc.
Andrea Hamberg	Public Health & Urban Forum, Multnomah County

Alternate Members Attending	**Affiliate**
Sarah Paulus	Multnomah County
Glen Bolen	Oregon Department of Transportation
Kelly Reid	OR Dept. of Land Conservation & Development
Manuel Contreas, Jr.	Clackamas Water Environmental Services
Aaron Golub	Portland State University
Brendon Haggerty	Public Health & Urban Forum, Multnomah Co.
Ryan Ames	Public Health & Urban Forum, Washington Co.

Guests Attending	**Affiliate**
Alicia Wood	
Barbara Fryer	City of Cornelius
Brian Martin	City of Beaverton
Fiona Lyon	TriMet
Kevin Young	
Marc Farrar	
Matthew Hall	WSP
Max Nonnamaker	Multnomah County
Riley Howard	N. Clackamas Parks & Recreation District
Schuyler Warren	City of Tigard

Metro Staff Attending
Eliot Rose, Eryn Kehe, John Mermin, Kim Ellis, Lake McTighe, Marie Miller, Matt Bihn, Matthew Hampton, Tom Kloster

Call to Order, Quorum Declaration and Introductions
Chair Tom Kloster called the meeting to order at 10:00 a.m. Introductions were made. A quorum was declared. Zoom logistics and meeting features were reviewed for online raised hands, renaming yourself, finding attendees and participants, and chat area for messaging and sharing links.

Chair Kloster announced that starting in January 2023 the Metro Technical Advisory Committee (MTAC) meetings would be chaired by Eryn Kehe. Ms. Kehe provided a brief introduction and noted she was looking forward to meeting the committee members and chairing the meetings soon. Chair Kloster would remain chair of TPAC and the combined MTAC/TPAC workshops in 2023.

Comments from the Chair and Committee Members

- **Updates from committee members around the Region** (all) none

- **Fatal crashes update** (Lake McTighe) The report noted that at least 15 people have died in fatal crashes since the last MTAC report (in the 3 counties). The memo that was provided with information previously is currently undergoing a refresh. A survey to the committees will be given early in 2023 to help better understand how this information can be more useful for the committees.

Public Communications on Agenda Items - none

Consideration of MTAC minutes September 21, 2022 meeting
MOTION: To approve minutes from September 21, 2022 meeting
Moved: Carol Chesarek Seconded: Cindy Detchon
ACTION: Motion passed unanimously.

Regional Transportation Plan (RTP Call for Project Approach (Kim Ellis, Metro)
An overview of the draft policy framework and process for the 2023 RTP Call for Projects was given. The purpose of the Call for Projects is to update of the region's near-term and long-term investment priorities for the 2023 Regional Transportation Plan (RTP). Metro will issue the Call for Projects on January 6, 2023. The deadline for project sponsors to submit recommended updates to RTP project and program priorities to Metro is February 17, 2023.

The policy framework reflects the culmination of more than two years of work by regional and community partners to identify transportation needs and develop a vision, goals, objectives, targets and a financial plan. The 2023 RTP call for projects responds to this direction as agency partners work together and with communities to update the investment priorities of the plan.

Further details provided in the presentation included the Call for Projects

- Build draft RTP list for evaluation, review, and refinement:

➢ **Constrained priorities** – region's top priorities given current funding outlook
➢ **Strategic priorities** – additional long-term priorities the region agrees to work together to advance

- Priorities identified collaboratively through county coordinating committees
- Capital costs targets determine how many projects may be submitted

What projects are eligible:
Projects that:
❑ help achieve vision, goals and policies
❑ come from adopted plans or strategies that had opportunities for public input
❑ are located inside the MPO boundary and on the designated regional system
❑ cost at least $2 million or be bundled with like projects

Role of coordinating committees:
❑ Build a coordinated, sub-regional list of city and county project and program priorities for the 2023-2045 time period in collaboration with state and regional partners
❑ Submit three packages within respective cost targets:
➢ 1 – "Constrained" priorities for 2023 to 2030
➢ 2 – "Constrained" priorities for 2031 to 2045
➢ 3 – "Strategic" priorities for 2031 to 2045
❑ Submit endorsement letter stating packages are subregions agreed upon priorities for 2023 RTP

Comments from the committee:

- Jamie Stasny asked for information on how revenue for tolling would be forecasted and funded with projects. Ms. Ellis noted work with ODOT is still ongoing to answer these questions. In terms of processing and developing the revenue forecast, consultants are looking at each individual agency, jurisdictions and cities to help provide expectations for 2024-2045. ODOT is estimating statewide funds from state and Federal funding, which then will be determined what the Metro share is for the region.

  Toll funding is believed to be planned in ranges of funding, related to each individual project ODOT is planning. There are different NEPA and process stages happening now which is challenging. Required for each are Federal guidance to be followed, part of the financial constrained process. MTAC members were encouraged to work with their representatives on the County Coordinating Committees for project input. Help from Metro staff is also available with contacts listed and details on the Call for Projects on the RTP webpage.

- Matthew Hall asked are the 2018 RTP projects already in that online hub and jurisdictions will just need to update them, or will they need to be entered into the hub anew (by Metro or those jurisdictions)? Ms. Ellis agreed, this is the starting point. Agencies are identifying projects as priorities and will update this information. Project hubs will be important in the RTP update as project costs increase dramatically. If new projects are not listed there, they need to be entered in the online hub. It was emphasized that projects listed makes them eligible for Federal funding.
- Mike O'Brien asked if there was anyway to strengthen and emphasize the goals for climate actions and resiliency toward reducing greenhouse gas emissions earlier rather than later. Ms.

Ellis noted climate and equity have been highlighted as high priorities with JPACT and Metro Council discussions. The RTP financial constrained project list will need to demonstrate these goals and targets for our region. Our partners are looking at greenhouse reduction strategies that can be advanced which is why the project assessments are early in the process. Information gathered can be used the Call for Projects and used to update our climate strategy.

- Sarah Paulus acknowledged the work done and presentation. The language in Table 1 was appreciated regarding emergency transportation routes and resiliency. The committee looks forward to more information on the revenue forecasts and discussion.
- Tara O'Brien noted she will follow up on technical questions and comments directly to staff.

The presentation concluded noting the challenge with Federal timelines and Federal deadlines, but appreciation to input on projects for consideration. The RTP draft document would be compiled for public review in July 2023.

Climate Smart Strategy Update (Kim Ellis, Metro) This presentation provided background information on the Climate Smart Strategy and work ahead to review and update the strategy as part of the 2023 Regional Transportation Plan update. Feedback from MTAC will help identify what assumptions may need to be updated or revised to account for new information and changes to policies, strategies and then identifying which high impact and medium-impact strategies that have the greatest potential to reduce GHG emissions should be focused on in the update to the Climate Smart Strategy.

Comments from the committee:

- Tara O'Brien noted Table 1 key transportation assumptions in Climate Smart Strategy Scenario starting on page 42 of the packet, asking if the assumptions based on what you need to put in the model has been updated. Will this numbers or tracking trends be adjusted to help reach climate goals. Ms. Ellis noted more discussion at Metro Council and committees are providing feedback now and will later be presented with scenarios and proposed actions.

  Ms. O'Brien noted the transit service hours are being addressed and worked on to get to these targets. Are the RTO programming assumptions categories something that could be adjusted? At issue is the growth and number of people that have access to these programs so that affordability is a fewer barrier to people taking transit. Can the categories be tweaked for improved measurements? Ms. Ellis noted the data and findings tied to household in proximity to transit access. This might not be able to address the climate impacts but can be part of the strategies getting us to our targets.

  Given that climate smart strategies are about reducing light duty vehicle emissions, it was noted TriMet is transitioning their entire bus fleet to 0% emissions goal. In the evaluation of the overall Call for Projects in the RTP, how does this work together? Ms. Ellis noted we have mandated targets around light duty vehicle emissions and report on overall gas emissions and how targets are being met. The changes in the bus fleet will be factored in on how targets are met. The new state rule on VMT reduction targets will need to be demonstrated. The Federal and state rules applied to the RTP using different tools and models doesn't always sync but does provide policy makers understanding and direction for future strategies.

- Carol Chesarek noted the understanding of the focus on state targets but is challenged with the ability to correlate this with the IPPC goals as part of the global climate strategies. Are the state targets where we need them to be? Is there a way to reference this somehow? Ms. Ellis noted that since work began on climate the goal posts have changed. The IPPC goals asked for 80% reductions by 2050, but the math is missing with the data, and it is hard to back track to 1990 levels. State agencies are trying to track the changes with moving targets, but the numbers are missing with different technical evaluations, tools and models from various plans.
- Mike O'Brien referred to Table 1 with transit services as falling short of what should be done in keeping up with population growth. How and when would this be measured, and how successful from previous years have been plans been? With the adopted plan, is this the reality? Will it change when we go from planning to construction? Ms. Ellis noted that in the last RTP update we didn't rely on the models but looked at assumptions. Each year starts with a base year to represent what is current, taking into account what has been constructed with factors such as parking policies, land use plans and development areas. The monitoring report following the RTP adoption will provide more information. Asked if we would want to amend that strategy report to something more aspirational, it was agreed, and to look for ways to go beyond assumptions.
- Tara O'Brien added TriMet is asking the same questions on how transit service hours are matching accessibility issues, how may miles of dedicated transit facilities do we have on roadways, have we started reaching our goals to transit improvements, investments and pricing modes and tracking climate goals. Ms. Ellis noted work with partners to leverage transit investments toward climate strategies.
- Andrea Hamberg noted interest in tracking how we are estimating the health benefits related to active transportation, safety improvements in our transportation system and reduction in air pollution. It was noted MOVES does not give us this information in order to understand how air pollution reductions are impacting public health. Outputs of models were discussed in the past and was suggested to look at again, which can provide electeds and public better understanding of benefits from investments on the transportation system. It was noted Metro is looking at all the benefits these strategies bring, not just the climate benefits, while acknowledging the capacity limitations of tools and models.

  It was asked if Table 1 provides recent data and shows where we are falling short. It was hard to tell if any of the indicators have moved more in the wrong direction. Ms. Ellis noted some strategies have fallen short of anticipated goals, as an example with parking based on assumptions. Staff is working more with strategies on how we can make up these gaps. Additional data is coming from DEQ with their work on the extended length of time people own their vehicles contributing to longer times to transition to cleaner air.

- Jamie Stasny acknowledged this is part of the RTP update but asked for clarity regarding the land use factor as a big contributor issue with climate, which is now working off our 2040 plan. It appeared backward to update the climate smart strategy and then going back to update our whole original vision for land use after the RTP. Ms.Ellis noted this work will help inform the land use plan, and in addition provide direction with strategies growth, household planning,

codes and zoning, development and available lands, access to transportation and others. Much of the information will be relevant to each update.

- Eryn Kehe noted the plan updates were not in logical sequence perhaps, but related. The land use work ahead first is a UGB decision process. This will be the focus of the committee in 2023-24. The hope is to next update the 2040 growth concept.
- Jamie Stasny noted pricing among top factors the could give benefits from investments. In Clackamas County they are in the middle of the NEPA process with the I-205 program. This is providing an understanding of the impacts on the modeling systems and impacts with transportation. It was asked how decreases from divergences look like and is modeling showing this. How does this decrease model to VMT? And are roadway pricing vs road usage charges under discussion. Ms. Ellis noted specific modeling on decreases with the data have not been done yet. Assumptions on carbon pricing changes and information from the pricing study have shown potential for decreasing emissions, but more needs to be evaluated. The full system analysis will be made next year.

Adjournment

There being no further business, meeting was adjourned by Chair Kloster at 11:55 a.m.
Respectfully submitted,
Marie Miller, MTAC Recorder

Attachments to the Public Record, MTAC meeting November 16, 2022

Item	Document Type	Document Date	Document Description	Document No.
1	Agenda	11/16/2022	11/16/2022 MTAC Meeting Agenda	111622M-01
2	MTAC Work Program	10/13/2022	MTAC Work Program as of 10/13/2022	111622M-02
3	Slide	11/16/2022	Monthly fatal traffic crash report for Clackamas, Multnomah and Washington counties	111622M-03
4	Minutes	9/21/2022	Draft minutes from Sept. 21, 2022 MTAC meeting	111622M-04
5	Memo	11/9/2022	TO: MTAC members and interested parties From: Kim Ellis, RTP Project Manager RE: 2023 Regional Transportation Plan Policy Framework and Process for the RTP Call for Projects	111622M-05
6	Attachment 1	10/22/2022	2023 Regional Transportation Plan call for projects An overview of the policy framework and approach	111622M-06
7	Attachment 2	11/8/2022	DRAFT Policy Framework for the 2023 Regional Transportation Plan Call for Projects	111622M-07
8	Attachment 3	11/8/2022	Process Overview for the 2023 Regional Transportation Plan Call for Projects	111622M-08
9	Memo	11/9/2022	TO: MTAC members and interested parties From: Kim Ellis, RTP Project Manager RE: Climate Smart Strategy Update – Kick-off Discussion	111622M-09
10	Appendix A	December 6, 2018	2018 Regional Transportation Plan - Climate Leadership Policies	111622M-10
11	Appendix B	December 6, 2018	New State clean vehicle and fuel strategies since 2018	111622M-11
12	Appendix C	October 2022	2023 Regional Transportation Plan Update Climate Smart Strategy Update Jurisdictional Partner Comments	111622M-12
13	Presentation	11/16/2022	Policy Framework and Process for RTP Call for Projects	111622M-13
14	Presentation	11/16/2022	Climate Smart Strategy Overview	111622M-14

Memo

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

Date: Wednesday, January 18, 2023
To: Metro Technical Advisory Committee (MTAC)
From: Ally Holmqvist, Senior Transportation Planner
Subject: High Capacity Transit Strategy Update: Corridor Investment Readiness Tiers

Purpose

High capacity transit is the backbone of the Regional Transportation Plan (RTP) and Metro's 2040 Growth Concept, connecting the centers through corridors. The High Capacity Transit (HCT) Strategy has expanded the vision for the future of high capacity transit in the Portland region with the inclusion of rapid bus and has updated the framework for guiding regional high capacity transit system investments – categorizing corridors where a higher quality of service would most benefit the most people. This memorandum describes the work done to date with partners to revise the draft policy framework, re-envision the network, and identify corridor investment priorities – milestones for this key policy focus area for the 2023 Regional Transportation Plan (RTP) Update.

Background

This fall, the three County coordinating technical and policy committees, TPAC, MTAC, the Joint Policy Advisory Committee on Transportation (JPACT), the Metro Policy Advisory Committee (MPAC), and Metro Council all provided feedback to shape development of the network vision for high capacity transit for the 2023 RTP, as well as input on the engagement strategy for the project. At the October TPAC/MTAC meeting, staff heard it was important to consider: access to jobs and other major destinations, access to the high capacity transit network, connecting town centers, supporting alternatives to driving, and using the right tools in the right places, including how we can grow transit improvements in the future.

Opportunities for public input included a broader RTP needs survey; in-person tabling at TriMet's Forward Together open houses at PCC Cascade, the Rosewood Initiative, Shute Park Library, and CCC Harmony in partnership with APANO, Centro Cultural and Slavic Family; a discussion at the 2023 RTP Community Leader's Forum; meetings with TriMet's Transit Equity Advisory Committee and Committee on Accessible Transportation and Clackamas County Small Transit Providers; and two small group interviews with staff on Division Transit (SE Portland) and The Vine (Vancouver) lessons learned. Other feedback provided to staff included considering: balancing the regional system and focusing on connecting centers, supporting where the transit network is still being developed in addition to making improvements, and ensuring the system supports economy. Staff also heard it was important to continue to support the regional priority corridors we're already working to advance, as well as other existing or candidate high capacity transit corridors including: Lombard/Killingsworth, Martin Luther King Jr. Blvd., Cesar Chavez, Clackamas to Columbia, Halsey, Burnside, Powell, Hwy 212/Sunnyside, I-205, McLoughlin, WES/Route 76- Beaverton to Wilsonville, Hwy 26, 185th Avenue, and Hwy 99W.

Since then, the Project Management Team (including staff from Metro and TriMet) has been working with the Working Group (including regional partners) to continue to implement the engagement strategy and incorporate what was heard from decision-makers, advisory committees, regional stakeholders, and community to refine the draft policy framework, re-envision the regional high capacity transit network, and identify regional corridor high capacity transit investment priorities.

Revising the High Capacity Transit Policy Framework

While going through the process to apply the policy framework to develop the refined vision and the approach for assessing readiness, agency partners made additional recommendations for revising the policy framework to (see Attachment 3 for the minutes from HCT Strategy Update Working Group meetings #3.75 and #4):

- Better reflect the role of high capacity transit as the backbone of the transportation network and that with rapid bus and streetcar that role expands to connecting major town centers;
- Support high capacity transit operating in exclusive guideway to the greatest extent possible, while recognizing that it may operate in mixed traffic, exclusive guideway, or some combination of the two;
- Incorporate network design spacing best practices and mode shift goals;
- Clarify high capacity transit's role in speed and reliability, as well as the definition of mobility corridor and clean fleet; and
- Better reflect quality of life and environmental justice in the policy language.

The policy framework memo included in Attachment 6 incorporates these changes.

Refining the High Capacity Transit Network Vision

Guided by the policy framework and building from the 2018 RTP high capacity transit network, staff partners developed an approach to reimagine a stronger, expanded system best serving growing and changing regional needs. The approach was informed by feedback from decision-makers, advisory committees stakeholders, and community organizations on how to best refine the network vision for the long-term future of high capacity transit this past fall (Attachment 7 provides additional documentation for how the "Big Moves" lens informed this process). Agency partners stressed that as part of this process it was important to (see Attachment 3 for the agendas and minutes from HCT Strategy Update Working Group meetings #3.75 and #4):

- Continue to support established regional high capacity transit priorities: Southwest Corridor, Interstate Bridge, Montgomery Park Streetcar, Tualatin Valley Highway, and 82nd Avenue;
- Focus on ridership, land use supportiveness, accessibility, and cost-effectiveness when identifying corridors for investment near-term;
- Address gaps in the network supporting the 2040 Growth Concept blueprint when identifying corridors for investment short-term;
- Support north-south and east-west connections in Multnomah County and additional connections within and between Hillsboro, Clackamas County, and Wilsonville.

Applying that framework resulted in a refined network vision including new and stronger high quality transit connections along north-south and east-west corridors in Multnomah, Clackamas, Washington and Clark Counties. The scale is consistent with the regional history of success with the Federal Transit Administration's Capital Investment Grant Program and the scale of investment of prior plans and also considers network design and character (e.g., coverage, spacing, intensity). This stronger backbone would better support compact land development, create broader travel connections and mobility options, provide better alternatives to driving that encourage new ridership in support of our climate goals, and prioritize those who depend on transit or lack travel options, particularly communities of color and other historically marginalized communities.

Assessing Readiness and Developing Corridor Tiers

While all of the corridors in the vision are an important part of a broader system to meet our regional land use and transportation goals, they differ in their readiness for high capacity transit investment and not all are ready today. To be successful and maximize outcomes aligned with our regional investment priorities (equity, safety, climate, mobility, and vibrant and prosperous communities) corridors prioritized for this type of investment nearer-term must already have the following:

- many people already traveling today with more expected to travel in the future, especially historically marginalized communities,
- the potential to encourage people to ride transit rather than drive in support of our climate goals (e.g., reduce travel time, create capacity to meet travel demand),
- many and a balanced mix of jobs and housing (including affordable housing) that creates places where activity occurs most of the day,
- essential destinations (e.g., services, colleges, hospitals and medical facilities) within short, walkable distances of each other,
- well-designed streets and buildings that encourage walking and rolling and give transit priority,
- funding available for transit investments and a high cost-effectiveness of those investments, and
- solutions addressing community needs and priorities.

The expanded number of corridors in the refined vision went through additional system analysis and readiness evaluation to help better understand trips along the corridors, make additional adjustments, and assess these key indicators of readiness (see Attachment 4 for more detail on the approach). The approach built from the HCT Readiness Assessment Criteria developed with agency partners for the 2018 Regional Transit Strategy and drew from the Regional Transportation Plan performance measures in Chapter 7. It was also informed by feedback from decision-makers, advisory committees stakeholders, and community organizations on how to best refine the network vision for the long-term future of high capacity transit this past fall. Agency partners provided feedback that the readiness assessment criteria should (see Attachment 3 for the minutes from HCT Strategy Update Working Group meetings #3.75 and #4):

- Align with the policy framework, including optimal network spacing;
- Reflect the Federal Transit Administration's Capital Investment Grant Program criteria;
- Focus on people throughput and current and future productivity;
- Allow us to identify where to grow transit earlier;
- Consider travel time savings and car-dependent areas of the region;
- Focus on ridership, land use supportiveness, accessibility, and cost-effectiveness when identifying corridors for investment near-term; and
- Address gaps in the network supporting the 2040 Growth Concept blueprint when identifying corridors for investment short-term.

Table 1 below describes these measures in greater detail.

Table 1. Readiness Evaluation Criteria

Measure	Policy Context
Land Use Supportiveness and Market Potential: Connections linking the most people to jobs, essential services, and other major destinations (future population density by transportation analysis zone).	Supports the 2040 Growth Concept blueprint and 2023 RTP Vibrant Communities and Thriving Economy. Based on RTP Performance Measures 7.4.4 Access to Jobs, 7.4.7 Access to Transit and 7.4.5 Access to Community Places.
Equity Benefit: Connections linking the most people in equity areas to jobs, essential services, and other major destinations (access to essential services and jobs for people in equity focus areas).	Supports Metro's racial equity goals and the 2023 RTP Equitable Transportation Goal. Based on RTP Performance Measures 7.4.4 Access to Jobs, 7.4.7 Access to Transit and 7.4.5 Access to Community Places.
Transit Travel Time (Mobility) Benefit: How much investments in speed and reliability could improve how long a transit trip takes compared to other travel options (reliability ratio of congested to free flow conditions).	Supports the Regional Transit Strategy and the 2023 RTP Mobility Options goal. Based on RTP Performance Measure 7.4.9 Multimodal Travel Times.
Environmental Benefit: How many new riders could be created in support of our climate goals (reduction in vehicle miles traveled).	Supports the Climate Smart Strategy and the 2023 RTP Climate Action and Resilience Goal. Based on RTP Performance Measure 7.4.12 Carbon Emissions.
Productivity and Cost Effectiveness: What the cost would be per person riding for an investment (boardings per revenue hour and capital cost per rider).	Supports the Regional Transit Strategy and the 2018 RTP Fiscal Stewardship Goal. Based on RTP Performance Measure 7.4.11 Transit Efficiency and Ridership.

Other key indicators of the success of planning activities for and implementation of a high capacity transit investment include:

- **Documented Support:** what corridors are identified in local transportation for transit-supportive in-vestments, what local land use plans include transit-supportive land use policies for identified corridors, what displacement analysis and community stability strategies are in place, and what other high capacity transit-supportive work has been completed to date.
- **Existing Physical Conditions and Complexity:** how much potential right-of-way in the street is available and/or how much capacity could be added from transit investment, how accessible a corridor is by walking, rolling and bicycling today and what level of investment is needed, how long the corridor is, and what percentage is a freight route.
- **Local Commitment and Partnerships:** what level of documented local and community support there is for the corridor, what partnerships with agencies and municipalities

(including right-of-way owner) already exist, and what level of funding is or may be available.

Together, these measures indicated where there is the greatest need for and most potential benefits in making high quality transit investments today versus where there are other opportunities to make these types of investments in the future. Based on the assessment results, the team grouped the corridors by readiness into tiers also indicating the location and a representative mode for modeling (acknowledging that additional analysis through corridor planning and ultimately the NEPA process will define mode). When agency partners reviewed the proposed tiers in review sessions and Working Group #5 in December, staff heard it was important to consider:

- For Powell: light rail as the representative mode and a lower tier due to the planning complexity associated with the corridor and recent investment on Division,
- For Hillsboro to Forest Grove: a lower tier due to planning complexity and feasibility and recent investment on Tualatin Valley Highway,
- For Beaverton-Hillsdale Highway: local support from Washington County for this corridor as a priority, and
- For McLoughlin: rapid bus as the representative mode and that this corridor is the highest local priority in Clackamas County.

Incorporating this feedback, Attachment 4 identifies the pipeline of investment priorities (and provides more information as to how that was developed with working group partners)to inform the 2023 Regional Transportation Plan investment strategy — regional priority, emerging regional priority, developing, and future investment corridors. Similar to the 2009 HCT Plan, the associated map is intentionally fuzzy to allow the corridor planning process to select the preferred alignment supported by more detailed analysis.

For some of the corridors that are ready today, we have already started work to plan for new high quality transit connections in the nearer-term. These first-tier corridors either have a project with an adopted locally-preferred alternative or are actively working toward one now: Southwest Corridor, Interstate Bridge, Montgomery Park Streetcar, 82nd Avenue, and Tualatin Valley Highway. Tier 1 corridors would support these previously-identified regional priorities for 2030 and 2045 constrained investments in the 2023 Regional Transportation Plan. These are not the only corridors that are ready for investment today. But we know that our region's history of success with and capacity for the partnerships and work required to advance corridors through the Federal Project Development process is about one corridor every three years. As such, the second tier identifies corridors where planning activities for high capacity transit investments could begin as soon as the next five years. Tier 2 corridors would be opportunities for 2045 constrained and strategic investments in the 2023 Regional Transportation Plan.

Other corridors may first need additional development activity and/or other types of investments to help high capacity transit to be successful. These corridors demonstrate some readiness today and/or indicate strong readiness in the future, particularly where adopted land use and transportation plans and strategies promote a transit-supportive future. Additional work and/or time are needed to advance planning activities for these corridors and Better Bus improvements could provide a solution in the interim. Tier 3 corridors would be opportunities for additional 2045 strategic investments as feasible in the 2023 Regional Transportation Plan. Finally, some corridors may provide important future connections to support our 2040 Growth Concept vision that are not yet ready for this type of investment today. Many of the elements creating a supportive environment for the success of high capacity transit investment may not yet be present and/or fully established in adopted land use and transportation plans. Tier 4 corridors would continue to be

identified in the transit vision rather than investment opportunities for the 2023 Regional Transportation Plan.

Questions for Discussion

- What do you think about these additional adjustments to the transit policies derived from feedback from our engagement activities and work with the working group? Is there anything that you think could be improved upon to better reflect the outcomes we defined in developing the policy framework (including supporting regional goals)?
- What else should be considered in identifying the corridor investment readiness tiers? Are there refinements that should be considered? Are the Tier 2 next phase corridors that rose to the top the ones that the region is ready to champion?
- What would you like to see addressed in the final report towards best supporting implementation of the high capacity transit vision? How could the report best set-up local land use and transportation plans to be most transit-supportive?

Next Steps

Winter/Spring Corridor Readiness Engagement

Between January and March, staff will be working with decision-makers, advisory committees stakeholders, and community organizations to refine the investment priorities and identify additional considerations for high capacity transit investment readiness. Attachment 2 provides a preliminary draft schedule of these meetings and events. Those activities will include:

- participation in TriMet's 2023 Annual Service Plan (implanting year one of Forward Together) Tabling Events in January: *University of Oregon (Downtown Portland Campus), St. Philip Neri (SE Division, Portland), Rosewood Initiative (SE Stark), CCC Harmony (Milwaukie), Washington Street Conference Center (Hillsboro), Fairview City Hall, and Muslim Educational Trust (SW Portland).*
- proposed follow-up meetings with TriMet's Transit Equity Advisory Committee and Committee on Accessible Transportation;
- small business focus groups inviting participation from: *Business for a Better Portland, Venture Portland, Oregon Association of Minority Entrepreneurs, Westside Economic Alliance, North Clackamas Chamber, Gresham Chamber, and Tigard Chamber*;
- additional group discussions and events through contracts with community-based organizations (CBOs), coordinated with the 2023 RTP, involving community members from communities of color, youth and people with disabilities, who have been historically underrepresented in decision making and are more likely to rely on transit; and
- an online interactive storymap, including a survey, that walks community members through the work done to date on major milestones and seeks to identify how high capacity transit investments could best meet community needs.

Conversations with stakeholders and community members will help the team better understand what is needed to make the vision corridors ready for high capacity transit investment. As an outcome of this effort we are hoping to develop a list of opportunities, challenges, and recommendations for future corridor planning processes to address.

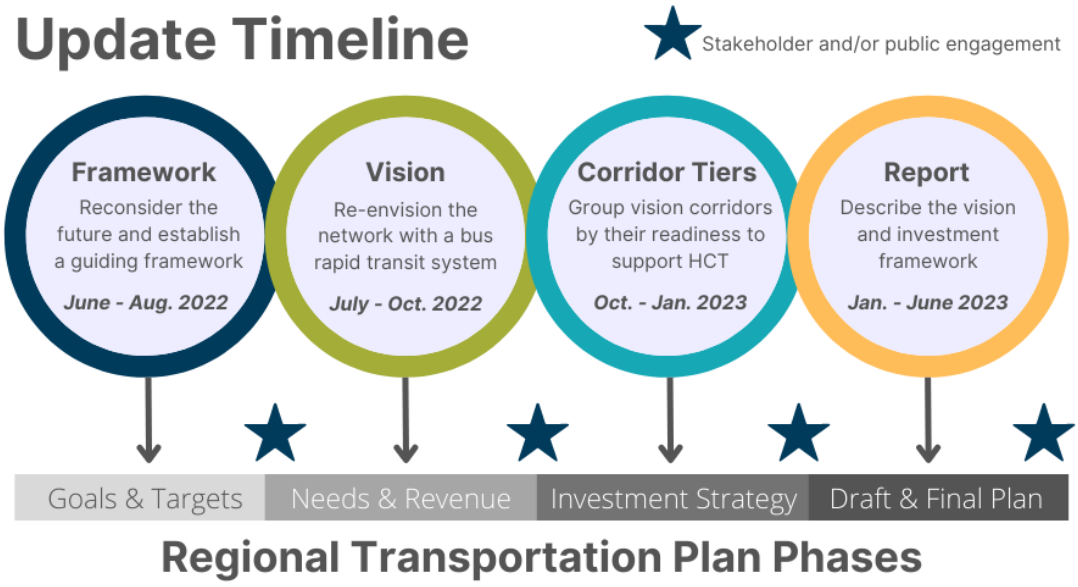
Developing the Draft Report

The next and final upcoming milestone for the High Capacity Transit (HCT) Strategy update is the draft report – drawing from and building upon the 2009 HCT Plan and 2018 Regional Transit Strategy. The report will summarize policy considerations, challenges and opportunities; vision development and outcomes; the corridor investment prioritization process; and actions and

strategies for facilitating implementation of the HCT System vision. It will also describe what it will take to implement the HCT System Vision, including identifying system needs and current and future actions necessary to meet those needs, what formal amendments or changes to existing plans may need to be enacted, and what additional actions or best practices should be pursued. Agency partners reviewed a draft outline of the report at Working Group #5 on December 20.

Spring/Summer Report Review and Engagement

As part of Working Group meeting #6 on April 5, partner members will review and comment on the draft High Capacity Transit Strategy Report. Staff will incorporate that feedback and then return to County and Metro advisory committees, including MTAC, for input on the draft High Capacity Transit Strategy report in May, aligned with timing for development of the RTP investment strategy. At the same time, staff will also reach out to all of the community, mobility, and advisory groups and organizations engaged as part of the process to invite review of and comment on the draft report.



ATTACHMENTS

1. Vision and Readiness Fact Sheet
2. Major Milestones and Meetings Outline (updated)
3. Working Group Meetings #3.75 & #4: Minutes
4. Readiness Approach Memo and Addendum
5. Readiness Reporting Matrix and Tiers
6. Updated Policy Framework Memo
7. Evaluation Supplemental Big Moves Analysis Documentation

cc: Tom Kloster, Metro Regional Planning Manager
Kim Ellis, Metro Principal Planner, Regional Transportation Planning
Andrea Pastor, Metro Senior Development Project Manager, Housing & TOD
Elizabeth Mros-O'Hara, Metro Principal Planner, Investment Areas
Grant O'Connell, TriMet Senior Planner, Mobility Planning & Policy
Jaime Snook, TriMet Director, Major Projects
Tara O'Brien, TriMet Senior Government Affairs Coordinator
Jonathan Plowman, TriMet Senior Transit Planner

High capacity transit vision & corridor investment priorities

A new vision for high capacity transit identifies faster and reliable transit connections that will connect more people in the greater Portland region to the places they need to go. Now, the region must prioritize where to invest first.

What is the vision for high capacity transit?

New high capacity transit will strengthen the backbone of the transportation system in the greater Portland region as the area continues to grow and change. High capacity transit is public transportation that moves a lot of people quickly and often – think light or commuter rail or bus rapid transit. It can efficiently move the highest number of people along regional routes where the most people need to travel quickly, reliably, and comfortably. The vision for high capacity transit builds from the existing light rail network and Division Street Frequent Express (FX) bus line and calls for new and stronger high quality transit connections in Multnomah, Clackamas, Washington and Clark counties.

The envisioned high capacity transit system will provide better alternatives to driving that encourage new ridership in support of the region's climate goals. The expanded system will prioritize those who depend on transit or lack travel options.

What is a "corridor"?

Corridors are routes that are heavily used by people and freight to connect to major destinations throughout the region. A corridor might include a large roadway with multiple transit lines and nearby smaller roadways and bikeways.

How will the corridors be prioritized?

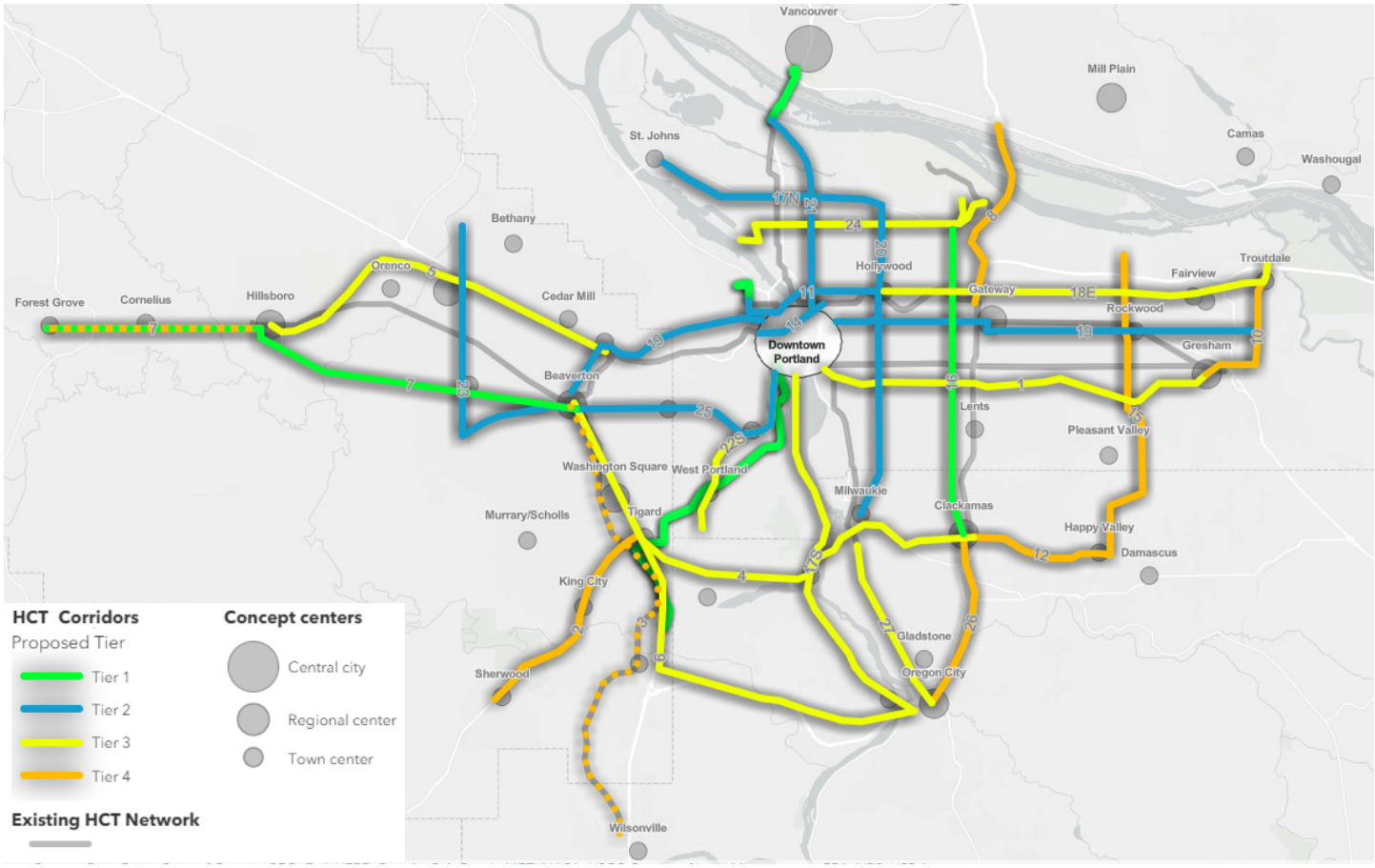
Not all the corridors identified in the vision are ready for high capacity transit today. To be prioritized for high capacity transit in the near-term, corridors must already have:

- many and a balanced mix of jobs and housing that creates places where activity occurs most of the day,
- essential destinations within short, walkable distances of each other,
- well-designed streets and buildings that encourage walking and rolling and give transit priority,
- funding available for investments and high cost-effectiveness of those investments, and
- community needs and priorities.

Together, these considerations help identify where there is the greatest need for and most potential benefit in making high quality transit investments. Grouping the corridors by levels of readiness, referred to as tiers, creates a plan that will support the cost-effective use of regional resources to build a high capacity transit system.

- **Tier 1:** Corridors that are ready and where new high capacity transit connections are currently planned for the near-term.
- **Tier 2:** Corridors where planning for high capacity transit investments could start as soon as the next five years.
- **Tier 3:** Corridors where other investments are needed to help high capacity transit to be successful
- **Tier 4:** Important future connections that are not yet ready for high capacity transit in the near-term.

Metro



HCT Investment Tiers

Tier 1: Where investments are currently being planned

- Southwest Corridor MAX
- 82nd Avenue FX Bus
- TV Highway FX Bus
- Interstate Bridge MAX
- Montgomery Park Streetcar

Tier 2: Where planning could start in five years

- 14 Central City Tunnel (improving MAX speed and reliability)
- 19 Burnside Beaverton to Gresham
- 11 NW Lovejoy to Hollywood
- 21 MLK Blvd Hayden Island to Downtown
- 23 185th Bethany to Beaverton
- 25 Hwy 10 Beaverton to Portland
- 22N St Johns to Portland
- 20 Cesar Chavez Portland to Milwaukie

Tier 3: Where corridors are getting ready for investments

- 1 Portland to Gresham (Powell)
- 22S Capitol Hwy PCC Sylvania to Portland
- 5 Hwy 26 Sunset TC to Hillsboro
- 24 Swan Island to Parkrose
- 17S Portland to Oregon City
- 18E Hollywood to Troutdale
- 27 McLoughlin Park Avenue MAX to Oregon City
- 6 Beaverton to Oregon City
- 4 Beaverton to Clackamas TC

Tier 4: Important corridors not yet ready for investment

- 9 Hillsboro to Forest Grove
- 10 Gresham to Troutdale
- 2 Hwy 99W Tigard to Sherwood
- 3 WES Corridor Improvements
- 15 Clackamas to Columbia
- 12 Clackamas TC to Damascus
- 26 Clackamas TC to Oregon City
- 8 I-205 Gateway to Clark County

What's Next?

In winter and spring 2023, the project team will work with community members and organizations, businesses, agency partners and elected officials to hear more about their investment priorities. Discussion will focus on what else the corridors need to be ready for high quality transit service.

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HIGH CAPACITY TRANSIT STRATEGY UPDATE

Key Meeting Dates and Engagement Activities for Project Milestones

January 2023

Outcome: Review corridor investment tiers. Continue revenue discussion. Feedback on HCT report outline.

Date	Who
January 4	East Multnomah County Transportation Committee TAC
January 5	Clackamas County Coordinating Committee TAC
January 5	Washington County Coordinating Committee TAC
January 9	East Multnomah County Transportation Committee (policy)
January 9	Washington County Coordinating Committee (policy)
January 11	**Transportation Policy Alternatives Committee (TPAC)**
January 18	Clackamas County C-4 subcommittee (policy)
January 18	**Metro Technical Advisory Committee (MTAC)**
January 19	**Joint Policy Advisory Committee on Transportation (JPACT)**
January 24	**Metro Council (work session)**
January 25	**Metro Policy Advisory Committee (MPAC)**

January-February	• Project webpage updates
	  ○ Readiness Assessment Memo
	  ○ Storymap and Survey: Readiness and Investment Priorities
	• Stakeholder Meetings/Interviews: Corridor Investment Tiers (January): How do you think these tiers look for investment priorities? What changes would you like to see? Why?
	  ○ TriMet TEAC & CAT (TBD)
	  ○ RTP CBO Contract – HCT corridor readiness and community priorities events (TBD)
	  ○ Focus groups (TBD): Small business organizations

April/May 2023

Outcome: Feedback on the draft report. Discuss 2023 RTP investment strategy. Preview public review process.

Date	Who
April 5	**HCT Working Group #6: Draft Strategy Report and RTP Investment Strategy** • HCT Report • RTP Investment Strategy • RTP Public Review Preview
May 3 (tentative)	*East Multnomah County Transportation Committee TAC*
May 4 (tentative)	*Clackamas County C-4 TAC*
May 4 (tentative)	*Washington County Coordinating Committee TAC*
May 10	**Transportation Policy Alternatives Committee (TPAC)**
May 15 (tentative)	*East Multnomah County Transportation Committee (policy)*
May 15 (tentative)	*Washington County Coordinating Committee (policy)*
May 17 (tentative)	*Clackamas County C-4 subcommittee (policy)*
May 17	**Metro Technical Advisory Committee (MTAC)**

May 18	**Joint Policy Advisory Committee on Transportation (JPACT)**
May 24	**Metro Policy Advisory Committee (MPAC)**
May 30	**Metro Council (work session)**

April-May	• Project webpage
	  ○ MetroQuest Survey: HCT Strategy
	  ○ Send survey, follow-up documents and public review notice to engaged stakeholders
	  ○ Draft report documents
	• Fact Sheet #6: What is the region's strategy for HCT?
	• RTP: Snapshot Story on Transit (importance of HCT- queue project list)

June/July 2023

Outcome: RTP Priorities and Public Review (including HCT).

Date	Who
TBD	TPAC
TBD	MTAC
TBD	JPACT
TBD	MPAC
TBD	Metro Council
June-July	• RTP Project webpage: Public review draft documents • RTP Public Review Period

November 2023

Outcome: RTP adoption.

Date	Who
TBD	Metro Council Work Session discussion
TBD	TPAC/MTAC workshop discussion
TBD	JPACT discussion
TBD	MPAC discussion
TBD	TPAC recommendation to JPACT
TBD	MTAC recommendation to MPAC
TBD	JPACT recommendation to Metro Council
TBD	MPAC recommendation to Metro Council
TBD	Metro Council considers action on MPAC and JPACT recommendations
October-December	• RTP Public Hearings • RTP Project webpage: Final documents

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TECHNICAL MEMORANDUM

DATE: November 17, 2022
TO: Ally Holmqvist, Metro
FROM: Ryan Farncomb, Kirsten Pennington (KLP Consulting), Oren Eshel (Nelson\Nygaard)
SUBJECT: Approach to assessing HCT corridor readiness, modes, and tiering
CC: Metro High Capacity Transit (HCT) Strategy Update

This memorandum documents the proposed approach to determining high capacity transit (HCT) corridor "readiness," corridor ranking, and discussion of factors that will influence future mode choice in each corridor. Metro will use this assessment to shape the HCT Strategy update, including identifying which corridors are priorities for implementation. The approach in this memo builds on the evaluations conducted previously for the 2009 and 2018 iterations of the HCT Strategy.

CORRIDOR READINESS EVALUATION

The prior *Revised Corridor Evaluation Memorandum* describes the overall approach to identifying the preliminary vision of possible HCT corridors and evaluating them through a two-step process. Corridors that emerge from this "Levell 1" screening, including previously identified corridors from 2009 and 2018 HCT system planning work that have not yet advanced, will be evaluated with this Level 2 screening. The Level 1 evaluation identified the preliminary HCT vision corridors that are subject to further screening and evaluation. Corridors with existing regional commitments – such as Southwest Corridor LRT, 82nd Avenue, and the Interstate Bridge Project, will not be evaluated further and are assumed to be included in the final vision as "Tier 1" corridors (see Corridor Ranking section below).

This memo describes the Level 2 screening which focuses on corridor "readiness;" meaning, whether the right conditions are in place to support advancing a given corridor for HCT investment. The Level 2 criteria are shown in Table 1. Attachment A shows an example evaluation using these criteria. These criteria are refined based on the 2018 evaluation and include criteria related to climate and equity, among other RTP policy priorities, and federal funding. The project team added these criteria to reflect regional policy priorities.

The federal funding criteria are based on the Federal Transit Administration's (FTA) Capital Investment Grants (CIG) program. This program is the most substantial non-local source for HCT funding in the Portland-Vancouver region and has funded many HCT investments, including much of the existing LRT system. Because of the outsize influence this program has on funding viability, the Level 2 screening criteria were revised to reflect the CIG program's criteria, thereby helping to ensure readiness of project corridors.

Table 1. Level 2 Corridor Evaluation Criteria

Criteria	Measure	Data Source/Notes	Methodology
Transit Travel Time Benefit	Ratio of personal vehicle travel time to transit travel time	HCT Plan (2018) Core Criteria Meets Section 5309 Capital Investments Grants (CIG) Small Starts Program "Mobility Improvements"	The team will compare the average travel time at 3:00 PM on a typical weekday for personal vehicles versus transit; the higher this ratio, the greater the opportunity to improve transit travel times.

Criteria	Measure	Data Source/Notes	Methodology
		Travel model data	
Productivity + Cost Effectiveness	Existing boardings per revenue hour in a given corridor Capital Cost per Rider (range to account for modal options)	HCT Plan (2018) Core Criteria Input to 5309 Capital Investments Grants (CIG) Program "Cost Effectiveness" measure	Boardings per revenue hour will be calculated based on 2019 and modeled 2040 boardings and transit revenue hours. Capital cost per rider will be presented as a range, based on average per-mile costs for two HCT modes (LRT and BRT).
Environmental Benefit	Change in GHG emissions associated with HCT investment in a given corridor.	"Reduction in emissions" meets HCT Plan (2018) Core Criteria VMT used as key performance measure in Metro 2021 TSMO Strategy	Using established transit elasticities, estimate the change in ridership that is likely occur in a given corridor by investing in HCT and the corresponding change in auto VMT that would be expected. Convert this change in VMT to GHG emissions using an average fleet emissions factor for year 2030.
Equity Benefit	Access to employment – Essential Jobs and Essential Services by Census Block within ½ mile of corridors Relative proportion of historically marginalized populations in each corridor, based on Metro's Focus Areas	TriMet and Metro Essential Destinations data. Remix Online Tool for Existing Routes Consider specific impact to in-person jobs in the region (data from TriMet *Forward Together* project)	The team will rely on data from TriMet's Forward Together program. Forward Together included location analysis of in-person jobs in the Metro region. The team will assess the relative number of in-person jobs within ½ mile of corridors using 20th percentiles. The relative proportion of historically marginalized populations within ½ mile of each corridor will be reported.
Land Use Supportiveness and Market Potential	2040 Population Density by TAZ within ½ mile of corridors 2040 Employment Density by TAZ within ½ mile of corridors Presence of higher education institutions, multi-family and affordable housing	Metro Travel Model HCT Plan (2018) Core Criteria "Land Use Supportiveness and Market Potential" Meets Section 5309 Capital Investments Grants (CIG) Small Starts Program "Land Use" and "Economic Development" criteria	Using existing 2040 Metro travel model data, the team will develop population densities within ½ mile of each corridor and rank by 20th percentiles. The project team will also provide for purposes of comparison the average density within 1/2 mile of (1) the average existing frequent service bus line and (2) average light rail line. The same approach will be applied for total employment within ½ mile of the corridors. The presence of multi-family and affordable housing, and higher education institutions will be applied as an additional land use check.

Jurisdictional Readiness Evaluation

After screening the corridor with the quantitative criteria, the project team will conduct a "jurisdictional readiness" evaluation to provide additional context. This next evaluation will be conducted on those corridors that score highly on the quantitative evaluation. This evaluation will be qualitative and based on the following factors:

- **Documented community support**, as determined by inclusion of a given corridor in local plans, supportive language in local Comprehensive Plans, etc.
- **Political support,** as determined by an identified jurisdictional "champion" for a given corridor. HCT corridors require strong political support and usually a local agency(s) that is strongly supportive of the project and that will maintain that support over the long-term.
- **Transit-supportive local policies**, such as those encouraging multifamily housing, minimum land use densities, mixed uses, affordable housing, employment, and other areas.
- **Local anti-displacement strategies or policies**
- **Identified local funding** for implementation (either as match or as a locally-funded project).
- **Physical conditions in the corridor,** looking at the likely availability of ROW broadly within a given HCT corridor or the need for mobility solutions that could require additional ROW within a high travel and constrained corridor; known environmental constraints, and presence of sidewalks and cycling facilities. Corridors with major physical constraints would score lower relative to this criterion. However, a major influx of funding could influence the readiness of corridors with major physical constraints.
- **Assessment of work conducted to-date,** meaning, the level and amount of planning, design, environmental, or other work that has been completed to define and advance the HCT investment in a given corridor.

CORRIDOR RANKING

After both evaluation steps have been completed, the project team will conduct an initial sort of corridors into one of four tiers based on their performance. These tiers are based on the original 2009 HCT System Plan Report:

- **Tier 1 – Regional Priority Corridors**: these include corridors with an adopted Locally Preferred Alternative (LPA) under the National Environmental Policy Act (NEPA), or those where determination of the LPA is already underway (such as 82nd Avenue). These corridors are likely to score well with respect to the Federal Transit Administration's (FTA) Capital Investment Grant (CIG) program. These corridors already have regional consensus and so were not evaluated with the Level 2/readiness criteria described above.
- **Tier 2 – Emerging Regional Priority Corridors**: Tier 2 includes corridors that score highest based on the quantitative and qualitative assessment where additional policy or planning actions may elevate the corridor to advance within the next five years. With steps taken to advance regional discussion on these corridors and/or some changes in the corridor itself, Tier 2 corridors may score well with respect to the Federal Transit Administration's (FTA) Capital Investment Grant (CIG) program.
- **Tier 3 – Developing Corridors**: corridors that scored in the middle relative to others based on the quantitative evaluation and where the qualitative assessment shows multiple issues or needs that must be addressed, or where land use or employment and population density is marginal for HCT investment. These corridors likely require more time before advancing.
- **Tier 4 – Future Corridors**: these corridors score lowest on the quantitative and qualitative evaluation and lack policy or land use conditions that warrant near-term HCT investments.

Funding considerations will be an important "lens" applied to the initial tiering that emerges from this assessment. Available funding is fundamental to the number of corridors the region is able to advance in the

near-term and as such is an important final screen on the initial tiering. The project team will also conduct a final "policy check" to ensure the corridors that emerge from the analysis align with the HCT policy framework and the intended regional outcomes. The final funding and policy check reviews are qualitative in nature; limited modifications, additions, removals, or changes in assigned Tier may result.

Finally, the project team will describe conditions that are likely to influence future discussions on the appropriate HCT mode for each corridor. A specific mode may not be assigned to corridors, given that further study and evaluation is required to determine the appropriate mode in each corridor, as well as the final corridor routing, as part of further studies outside of this process. The team will review the following factors that contribute toward mode selection, including:

- Existing corridor ridership.
- The personal vehicle to transit travel time ratio, determined for each corridor previously (Table 1). The greater this ratio, the greater the need for corridor investment in transit priority or other interventions (e.g., stop consolidation) to improve travel times.
- Existing roadway capacity and available right-of-way: this qualitative assessment will look at the likely availability of ROW broadly within a given HCT corridor or the need for mobility solutions that could require additional ROW within a high travel and constrained corridor. This assessment aims to understand the relative difficulty of implementing HCT.

These criteria will be used to determine if they likely require <50% priority or >50% priority.

However, the project team will assign a representative corridor and mode for purposes of modeling corridors only to understand the high-level impacts of HCT investments on regional transit ridership and mode split. The project team will determine these representative modes based on ridership and connections to the existing HCT system. Future corridor refinement studies will make alignment and mode determinations.

AREAS SUBJECT TO FURTHER REFINEMENT

This evaluation will result in high-level information useful for confirming the vision for HCT and ranking corridors based on readiness to advance. However, identifying and tiering corridors is the first step toward advancing HCT. Detailed study and public involvement is required to advance corridors through the various phases of project development, design, construction, and implementation. An important early step in advancing corridors is a detailed look at alignments, potential termini, and segmentation to further define the corridor and project; it may be that only part of a corridor is ready to proceed, or that segmenting a given corridor is the preferred approach to move forward. Additional work that would occur outside of the HCT Strategy Update process and would define elements of the project further includes:

- Mode and vehicle type
- Exact alignment and termini
- Level of transit priority needed
- Station locations
- Roadway design
- Pedestrian and bicycle facilities
- Integration with the broader transportation system, including first/last mile considerations, park and rides, traffic impacts, etc.

12/8/22 Revised DRAFT Level 2 and Readiness Assessment Addendum

The following provides more details on the analysis conducted as part of the Level 2/Readiness Assessment for the HCT Strategy Update. This addendum is subject to revision as the evaluation approach and results are refined based on agency and stakeholder feedback.

Level 2 Evaluation

Metric	Approach
Transit-Auto Travel Time Ratio	Results represent the estimated ratio of transit travel time to personal car travel time in a given corridor. This ratio is calculated using Google Maps travel times during the same hour for all corridors (trip departing at approximately 3:00 PM on a Wednesday), average of both directions, including transfer time (if applicable). Corridors were scored relative to each other based on quartiles.

Productivity and Cost Effectiveness	• **Boardings per revenue hour:** calculated based on 2019 fall quarter average ridership and revenue hours on TriMet lines associated with each corridor. For those corridors where no transit line exists today, the team used the following assumptions:
	  ○ Corridor 14, Central City Tunnel: productivity estimated using combined MAX Red and Blue line boardings and revenue hours. This project would affect corridor-wide travel times, and therefore the team used the corridor-wide ridership for this factor.
	  ○ Corridor 8, Parkrose to Clark County: the team was not able to develop a ridership estimate for this route.
	• **Capital cost per rider:** this metric was estimated similarly to how it would be estimated as part of the FTA CIG program evaluation. It represents the *annualized federal capital cost per rider*. Because the HCT Strategy Update is not going to assign a specific mode to most corridors, the team developed a range of capital cost estimates based on BRT and LRT costs to feed into this metric. A low and high capital cost was generated for each corridor as follows:
	  ○ Low: using the per-mile capital cost for the Division BRT project, multiplied by the representative corridor length to yield a total corridor cost.
	  ○ High: using the per-mile capital cost for the SW Corridor LRT project, multiplied by the representative corridor length to yield a total corridor cost.
	To align with CIG criteria, the cost was then annualized based on an average annualization factor of 30 years and 50 years for the low-end and high-end, respectively. These factors represent the average lifespan of all of the capital elements of a representative BRT and LRT project; some elements have shorter life spans (e.g., vehicles) while others have longer life spans (e.g.,

Metric	Approach
	trackway). Finally, the project team assumed that each corridor would receive 50% federal funding, such that effectively half of the capital cost for each corridor contributes to the federalized share. This annualized federal cost share was then divided by the number of annual riders on transit in each corridor, based on 2019 ridership data. Exceptions to the above methodology include: ○ Corridor 14- Central City Tunnel: assumed a single capital cost based on the capital cost developed as part of Metro's Central City Transit Capacity Analysis project (2019). ○ Corridor 18W- Montgomery Park to Hollywood: this corridor is assumed to be "streetcar." The project team used the per-mile cost of the eastside streetcar project (from 2011), inflated using the construction cost index to 2022 dollars. ○ Corridor 6- Beaverton to Oregon City: no existing service on this line. Used the estimate of new riders that was modeled as part of the TriMet Express and Limited Stop Study (2020) for this corridor. ○ Corridors 3, 9, 10, 27 were assigned LRT as representative mode based on prior planning (2009 HCT Strategy) for purposes of scoring capital cost.
Environmental Benefit	**GHG reduction benefit:** the methodology uses an assumed change in transit headways and research on transit elasticities to result in an estimated change in ridership based on implementing HCT, a corresponding reduction in VMT based on this increase in ridership, and in turn a reduction in GHG emissions on an annual basis in metric tons. No ridership modeling was conducted for this assessment, so the team used headway elasticities to generate a high-level estimate of change in ridership from implementing HCT in each corridor. Research shows that headway improvements are responsible for a substantial share of the ridership impact of HCT; however, the project team recognizes that this does not account for the other elements of BRT (such as improved stations, etc.) that also contribute to ridership increases. Additional assumptions for the GHG calculation are as follows: • Used existing weekday transit ridership, average trip length, and average headways for each corridor based on 2019 TriMet data • Assumed that corridors improved to an average of 12-minute headways all day, based on Division Transit headways. • Headway elasticity is estimated at 0.5 per Victoria Transport Policy Institute (VTPI), meaning every 10% improvement in headway results in a 5% increase in ridership. For some corridors, an estimate of future ridership already exists (e.g., Central City Tunnel) and was used in place of the headway elasticity method. • The assumed increase in ridership was multiplied by the average transit trip length to generate an average increase in transit person miles travelled (PMT). • The increased transit PMT was assumed to result in a corresponding decrease in personal vehicle VMT; however, this VMT change was discounted by 50% to account for induced demand (based on research findings). When people

Metric	Approach
	shift to transit from driving, some increase in driving occurs as a result of newly freed up roadway space. • The reduction in VMT was then converted to a reduction in GHG, based on the average fleet efficiency (23 miles per gallon) and average GHG content of gasoline (9 kg/gallon) in 2020 to yield an annual reduction in GHG emissions.
Equity Benefit	• **Key destinations within a ½ mile of each corridor**: this metric looks at the average number of key destinations within ½ mile of each corridor. Key destinations include city halls, community centers, hospitals, libraries, and schools. The total was normalized using corridor length. • **Share of marginalized populations within ½ mile of each corridor:** this metric uses Metro equity focus areas based on Census tracts to report the percentage of the population that are marginalized populations in each corridor. Equity focus areas are Census tracts that represent communities where the rate of Black, Indigenous, or People of Color (BIPOC), people with limited English proficiency (LEP), or people with low income (LI) is greater than the regional average. Additionally, the density (persons per acre) of one or more of these populations must be double the regional average.
Land Use Supportiveness	• **Population density:** population density, per square mile, within ½ mile of each corridor based on 2040 projections from the Metro model by TAZ. Corridors with a population density above 7,000 persons per square mile are considered most supportive of HCT. • **Employment density:** number of jobs, per square mile, within ½ mile of corridor based on 2040 projections from the Metro model by TAZ. • **Number of affordable housing units:** number of units, per linear mile of corridor, within ½ mile of each corridor. • **Presence of higher education:** scored based on the presence of one or more higher education institutions within ½ mile of each corridor.

Readiness Criteria

Metric	Approach

Documented Support	• **Community support:** this was scored based on whether HCT or similar investment capital project is identified in local TSPs or related documents.
	• **Local champion/local funding:** *this criterion requires further discussion and is not scored at this time.*
	• **Transit-Supportive Policies:** this criterion looks at local jurisdiction policies that support HCT and align with the types of policies identified through the CIG program:
	  ○ Local jurisdiction anti-displacement policies
	  ○ Local jurisdiction policies that align with CIG funding criteria, including transit-supportive population and employment policies, housing policies, etc.

	• **Work completed to-date:** scored based on whether local jurisdictions and partners have performed work to advance a given corridor, beyond inclusion in long-range plans. This may include additional studies, projects, investments, or recent planning work supportive of advancing a given corridor. • **Tolling:** *this measure requires further discussion and is not scored at this time. The intent of this measure is to identify HCT corridors that overlap with tolling corridors.*
Physical Conditions in the Corridor	• **"Physical space":** the project team determined the share of each representative corridor that is less than or equal to three lanes or greater than three lanes (four or more lanes), in addition to the share of the corridor that is railroad ROW. This criterion provides a high level understanding of how constrained a given corridor is; corridors that are predominantly along roads that are less than three lanes would likely require greater capital investments and/or ROW acquisition in order to achieve transit priority lanes or separate guideways, and in turn, may have more complex planning and design processes that require more time. Corridors that are predominantly along roads that are four or more lanes wide potentially have more opportunity to re-purpose existing roadway space for transit priority lanes/separate guideways, and in turn, may require less complex planning and design processes to advance. • **Miles of sidewalks and miles of bicycle facility within ½ mile of each corridor:** these metrics look at the density of the existing cycling and walking networks as a way of understanding the robustness of the first-/last-mile network in each corridor. These metrics are normalized by the length of each corridor. Corridors were scored based on whether they are higher or lower than the median across all corridors.
Implementation Complexity	• **Length of corridor:** based on TriMet experience, lengthier HCT corridors become more complex and take more time to implement. Shorter corridors were assigned a higher score. • **Freight corridor**: this criterion assigns a score based on whether a corridor is a designated freight corridor or not. Corridors having a freight designation are scored lower, the need maintain freight mobility can present obstacles to developing HCT.

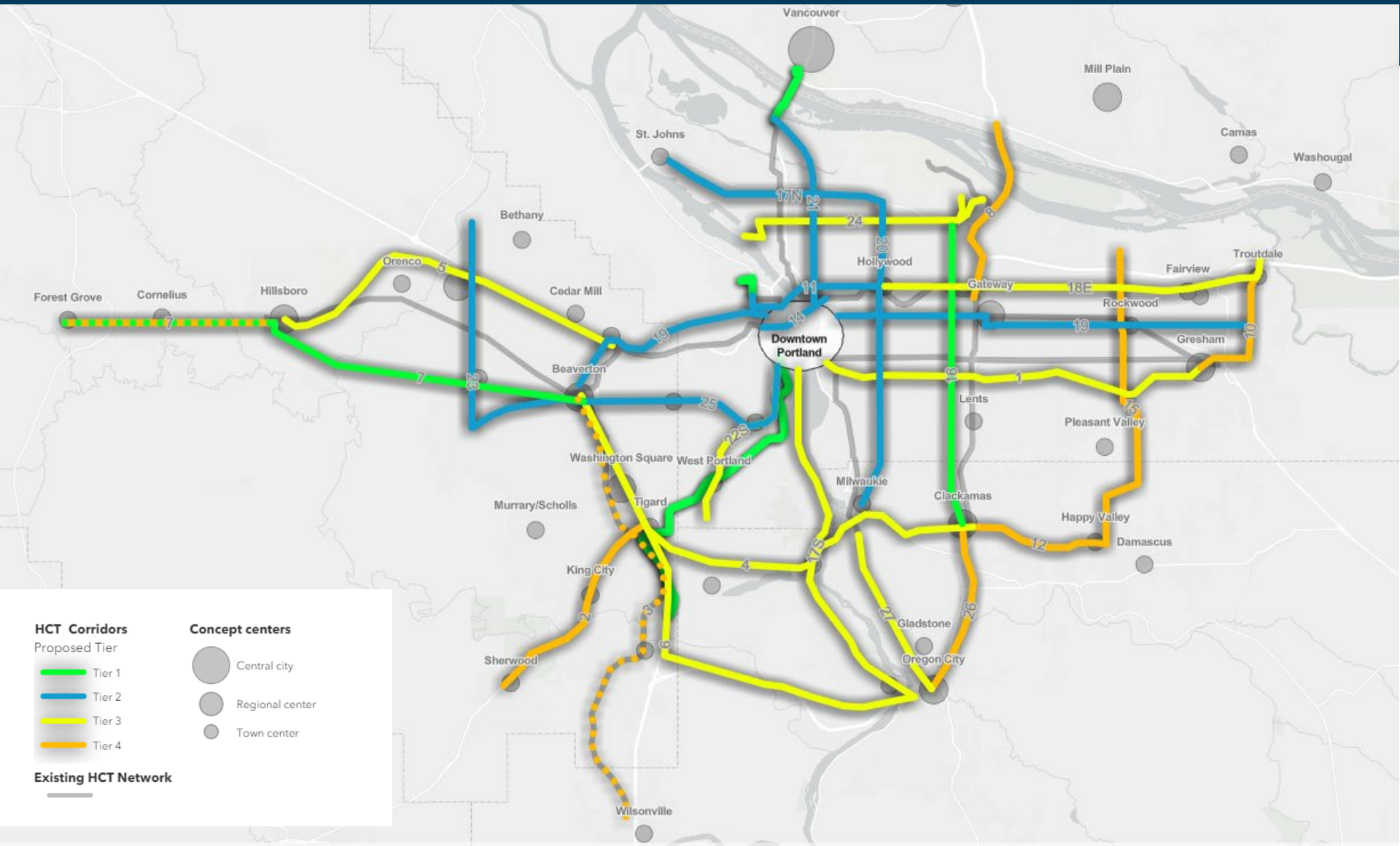
Map ID	Potential Project and Representative Corridor	Mobility	Productivity and Cost Effectiveness		Environmental Benefit	Equity Benefit		Land Use Supportiveness and Market Potential				Level 2 Evaluation Total Score	Documented Support			Physical Conditions in the Corridor			Implementation Complexity		Readiness Total Score	Total Score	Proposed Tier	Geography / Jurisdiction
		Transit Travel Time to Car Travel Time Ratio	Boardings per Revenue Hour	Capital Cost per Rider	GHG Reduction Benefit, Annual CO2e	Key Destinations within 1/2 Mile, Normalized	Share of Marginalized Populations within ½ Mile	Population Density	Employment Density	Number of Affordable Housing Units, Normalized	Presence of Higher Education		Community Support	Transit Supportive Land Use Policies	Work completed to-date	Physical Space	Miles of Sidewalks within 1/2 mile of Corridor, Normalized	Miles of street with Bike Facility Present within 1/2 mile of Corridor, Normalized	Corridor Length	Freight Corridor				
11	NW Lovejoy to Hollywood via Broadway/Weidler																						2	Portland/Multnomah
14	Central City Tunnel																						2	Portland/Regional
19	Beaverton - Portland - Gresham via Burnside																						2	Washington/Portland/Multnomah
21	Hayden Island - Downtown Portland via MLK																						2	Portland
23	Bethany to Beaverton via Farmington/SW 185th																						2	Washington
25	Beaverton to Portland via Hwy 10 (BH Hwy)																						2	Washington/Multnomah
22N	St Johns - Downtown Portland via Vancouver/Williams, Rosa Parks																						2	Portland
20	St. Johns - Milwaukie via Cesar Chavez																						2	Portland
1	Portland to Gresham in the vicinity of Powell Corridor																						3	Multnomah
22S	PCC Sylvania to Downtown Portland via Capitol Hwy																						3	Portland
5	Sunset Transit Center to Hillsboro via Hwy 26/ Evergreen																						3	Washington
24	Swan Island to Parkrose																						3	Portland
17S	Oregon City to Downtown Portland via Hwy 43																						3	Clackamas/Multnomah
18E	Hollywood to Troutdale																						3	Portland/Multnomah
27	Park Ave MAX Station to Oregon City via the McLoughlin Corridor																						3	Clackamas
6	Beaverton - Tigard - Tualatin - Oregon City																						3	Clackamas/Washington
4	Beaverton - Tigard - Lake Oswego - Milwaukie - Clackamas Town Center																						3	Clackamas/Washington
9	Hillsboro to Forest Grove																						4	Washington
10	Gresham to Troutdale																						4	Multnomah
2	Tigard to Sherwood via Hwy 99W Corridor																						4	Washington
3	Beaverton to Wilsonville in the vicinity of WES																						4	Washington
15	Happy Valley to Columbia Corridor via Pleasant Valley																						4	Multnomah/Clackamas
12	Clackamas Town Center to Damascas																						4	Clackamas
26	Clackamas Town Center to Oregon City																						4	Clackamas
8	Gateway to Clark County in the vicinity of I-205 Corridor																						4	Multnomah/Clark

Legend

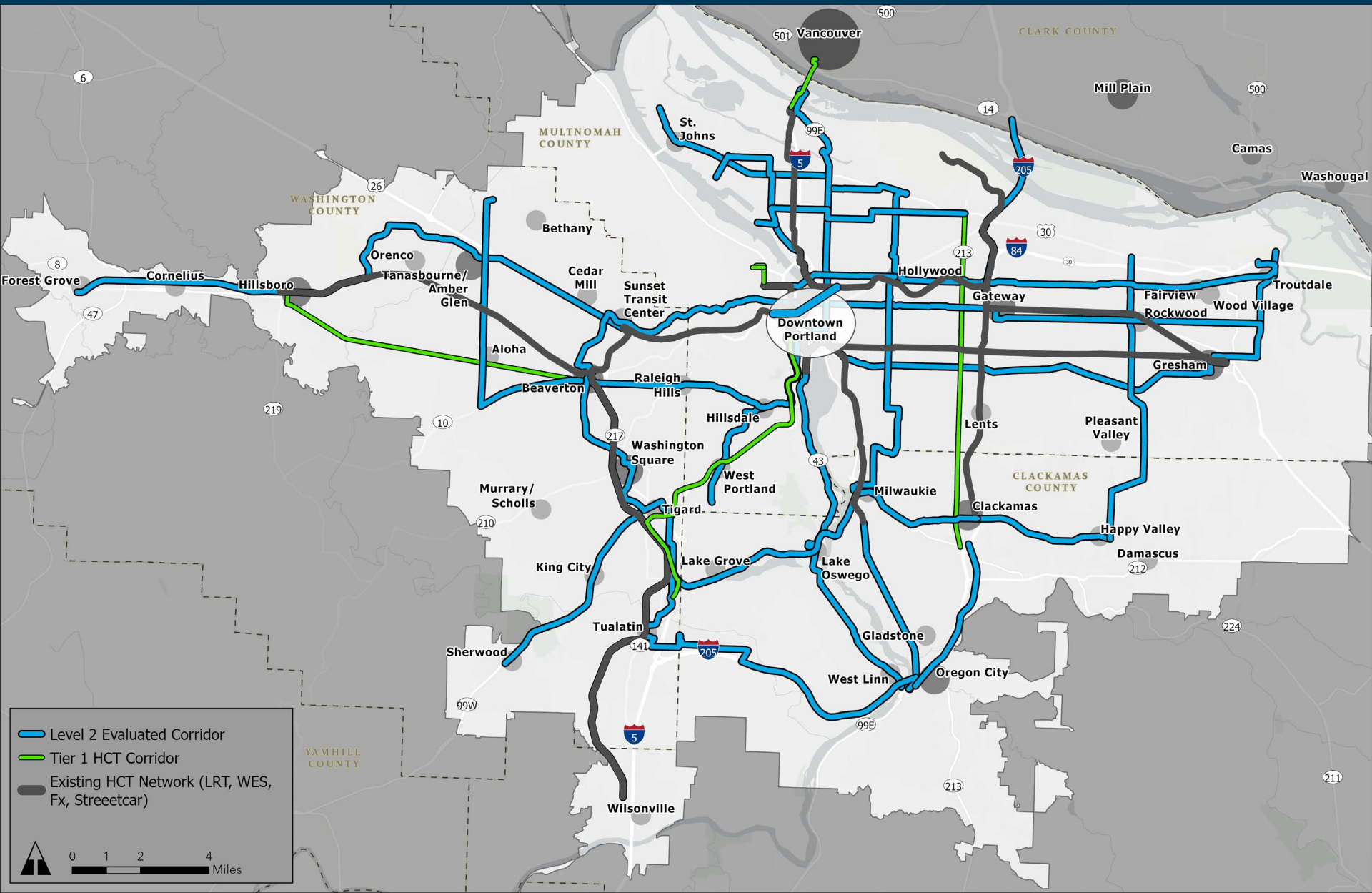
High

Low

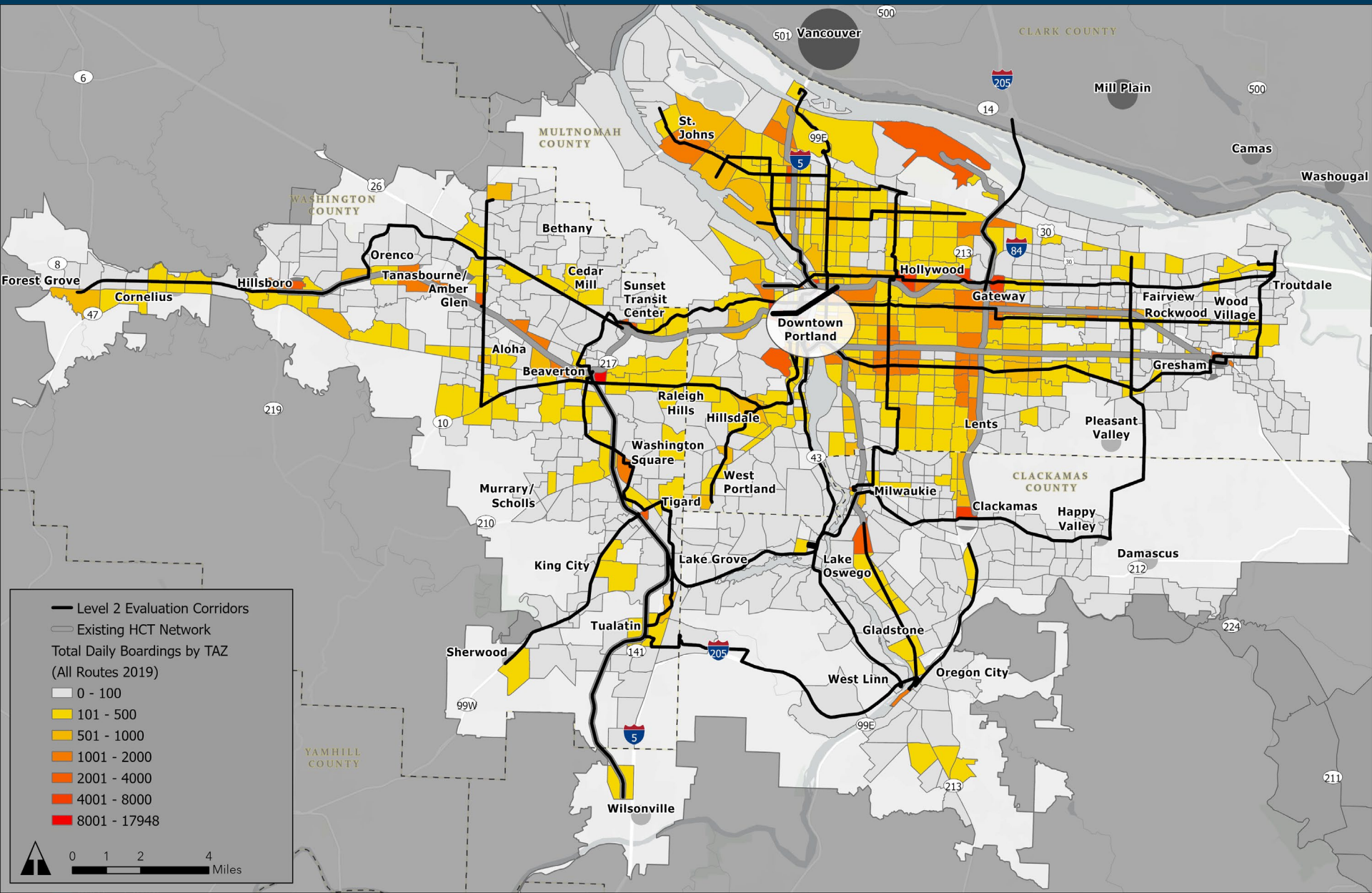
Corridor Tiers



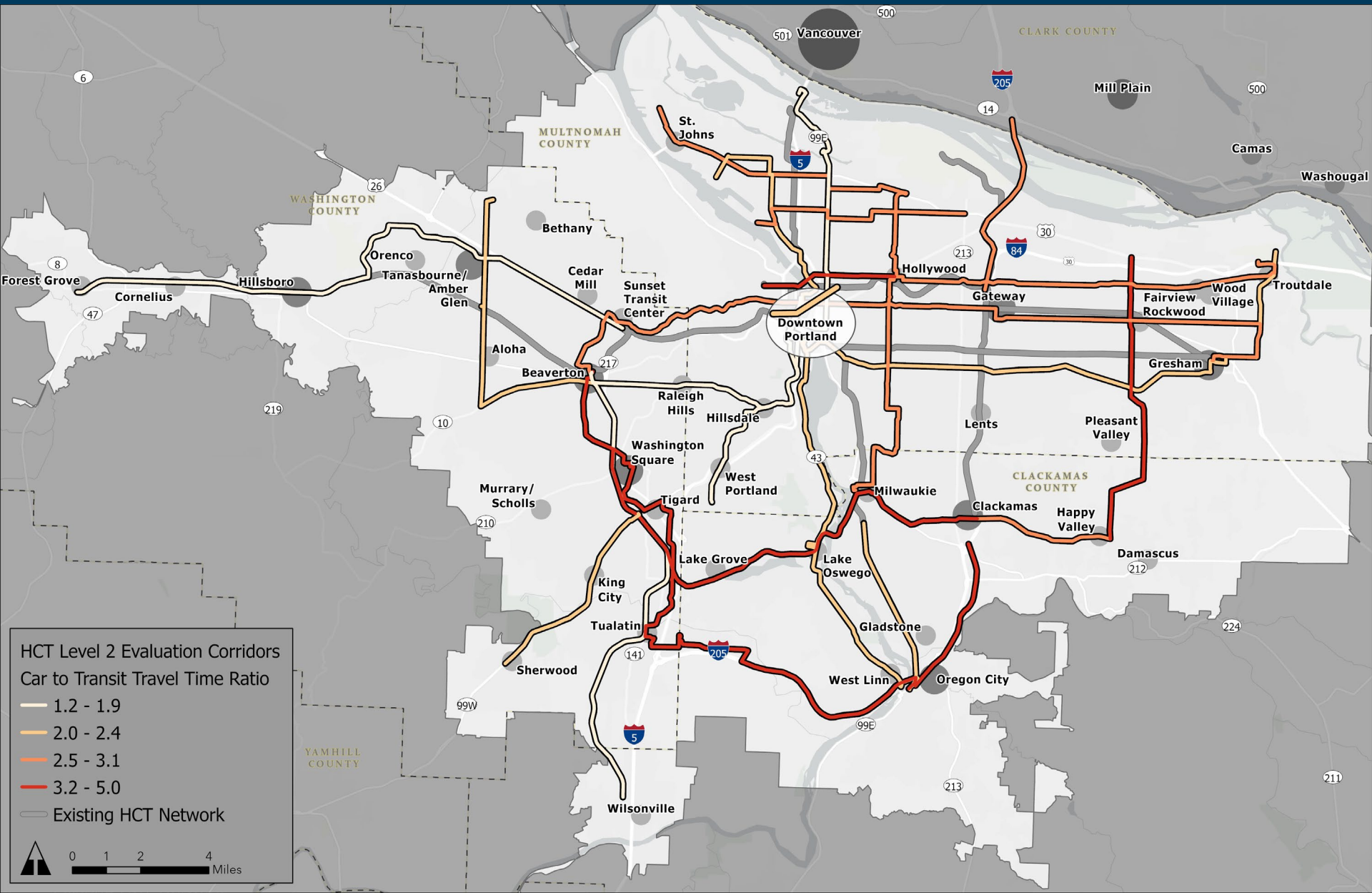
“Representative” Corridors



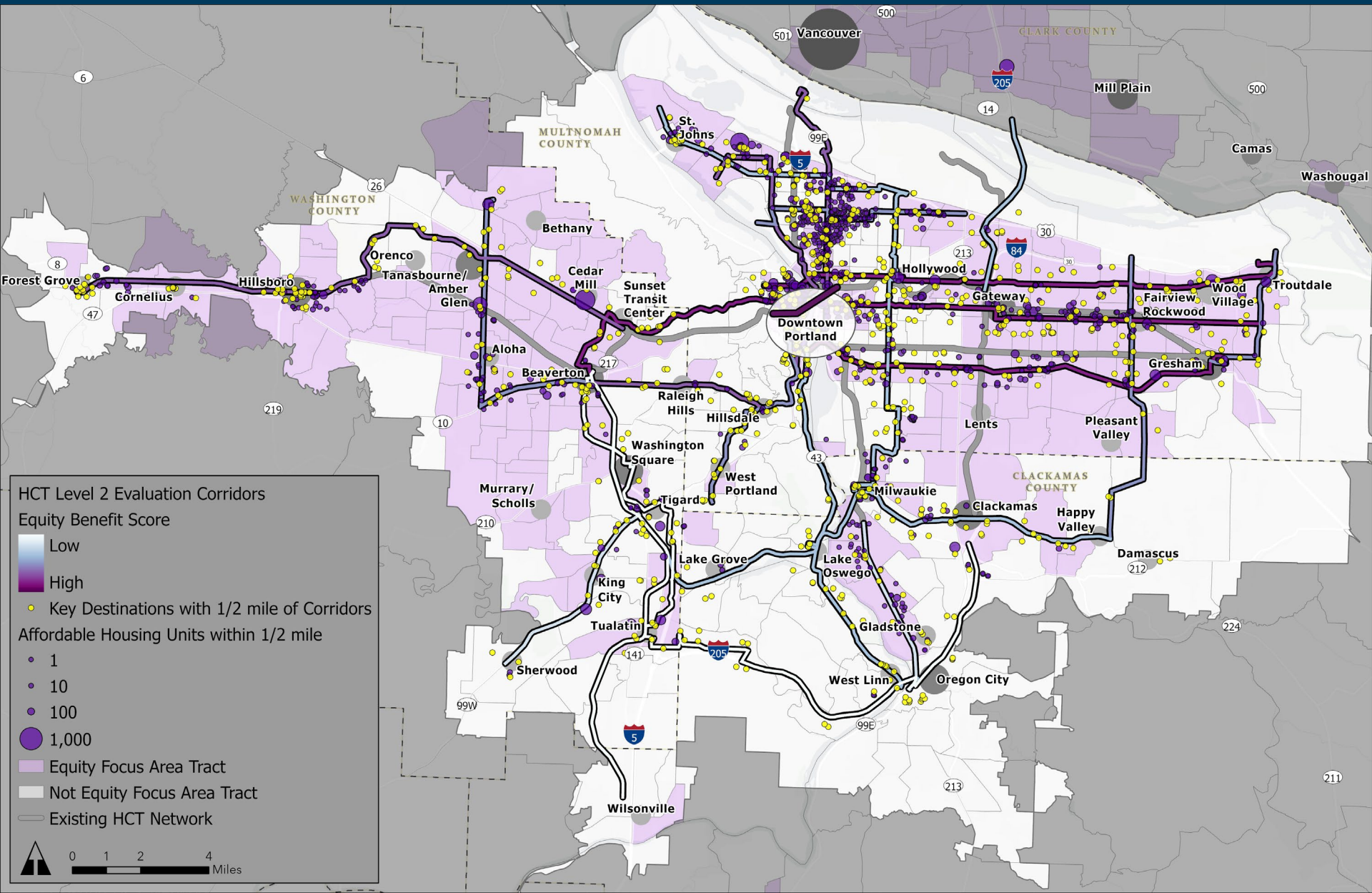
Daily TriMet Boardings by TAZ, 2019



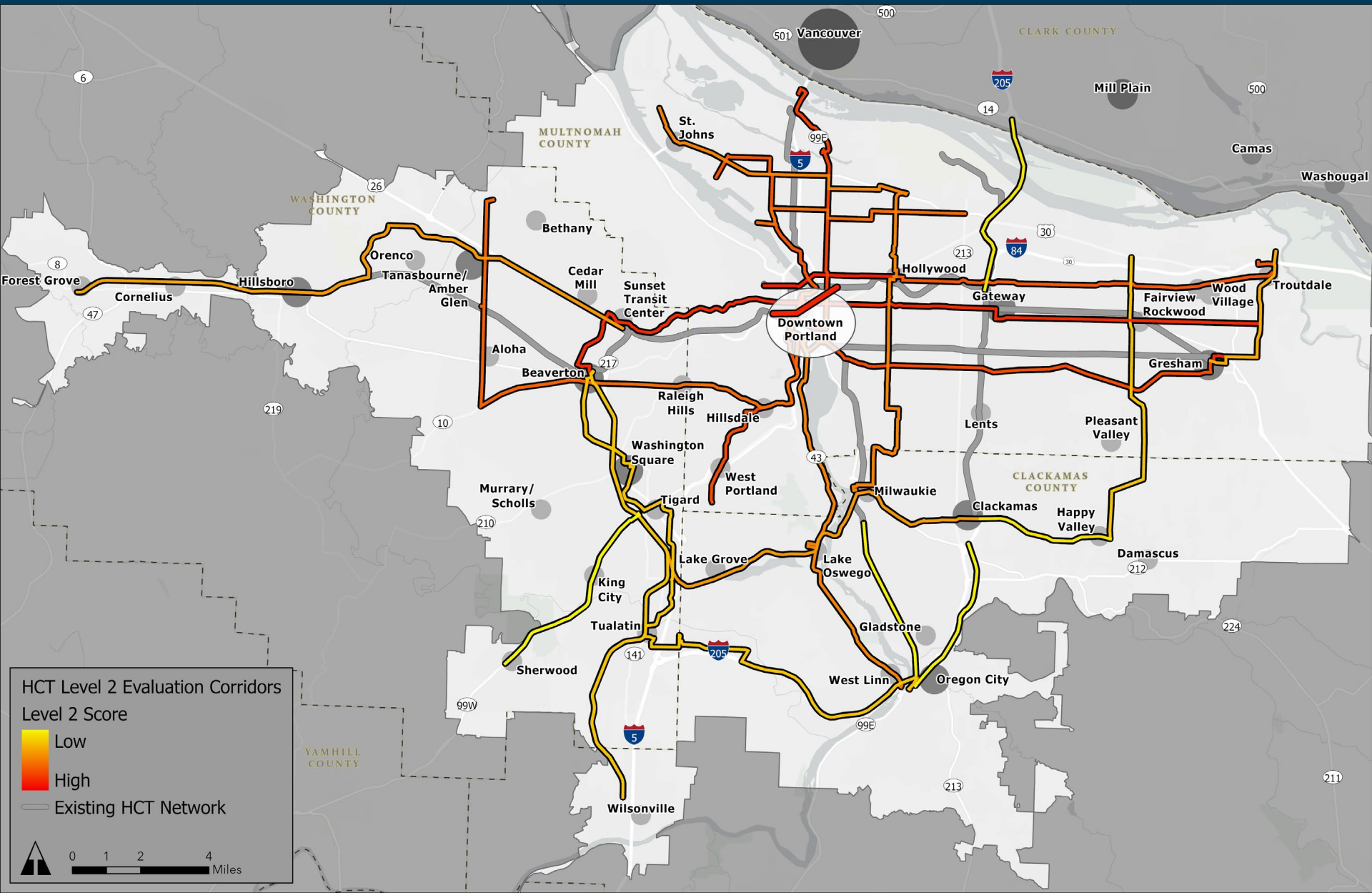
Car to Transit Travel Time Ratio



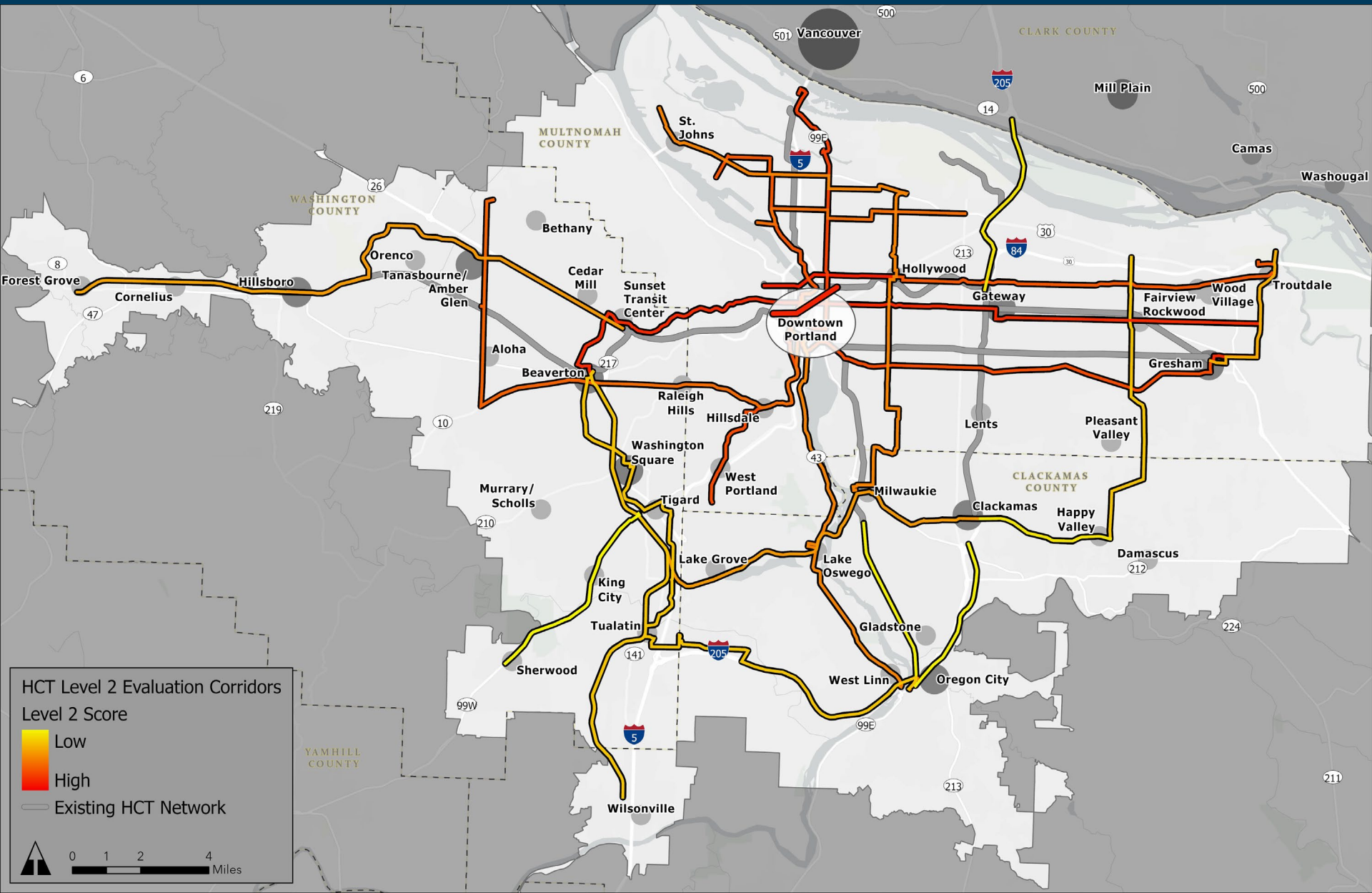
Equity Benefit and Key Destinations



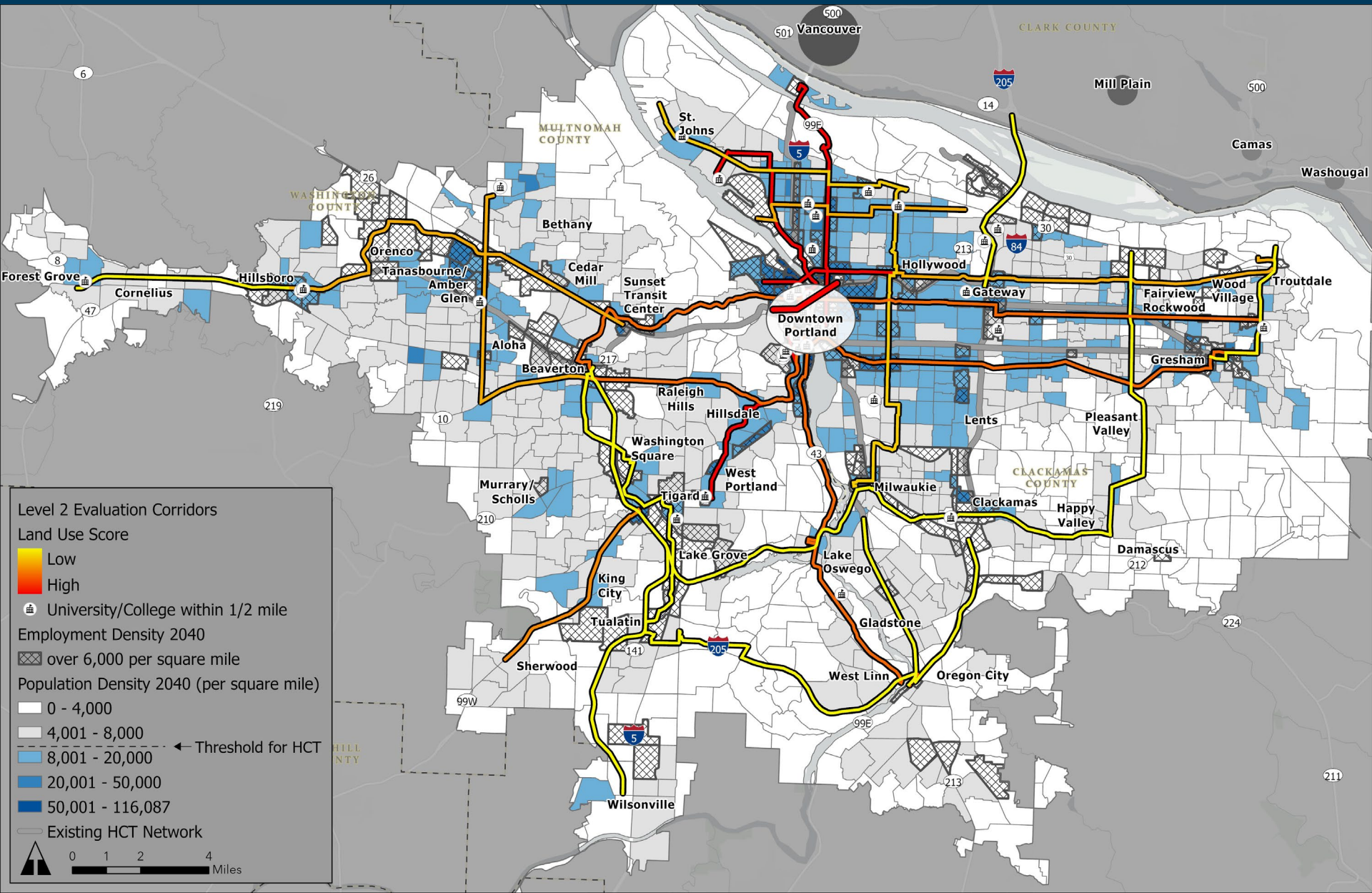
L2 Evaluation Corridor Ranking



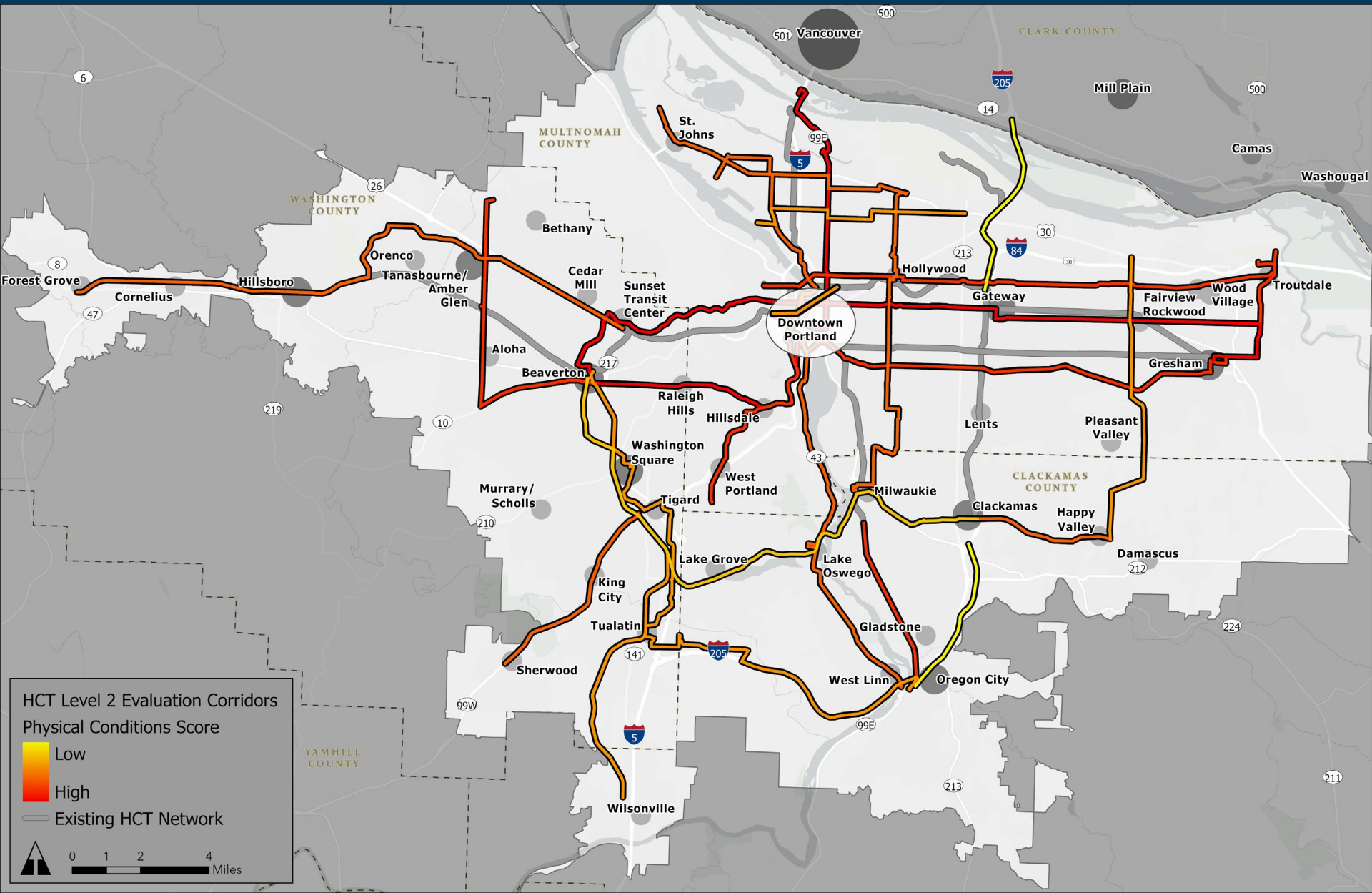
L2 Evaluation Corridor Ranking



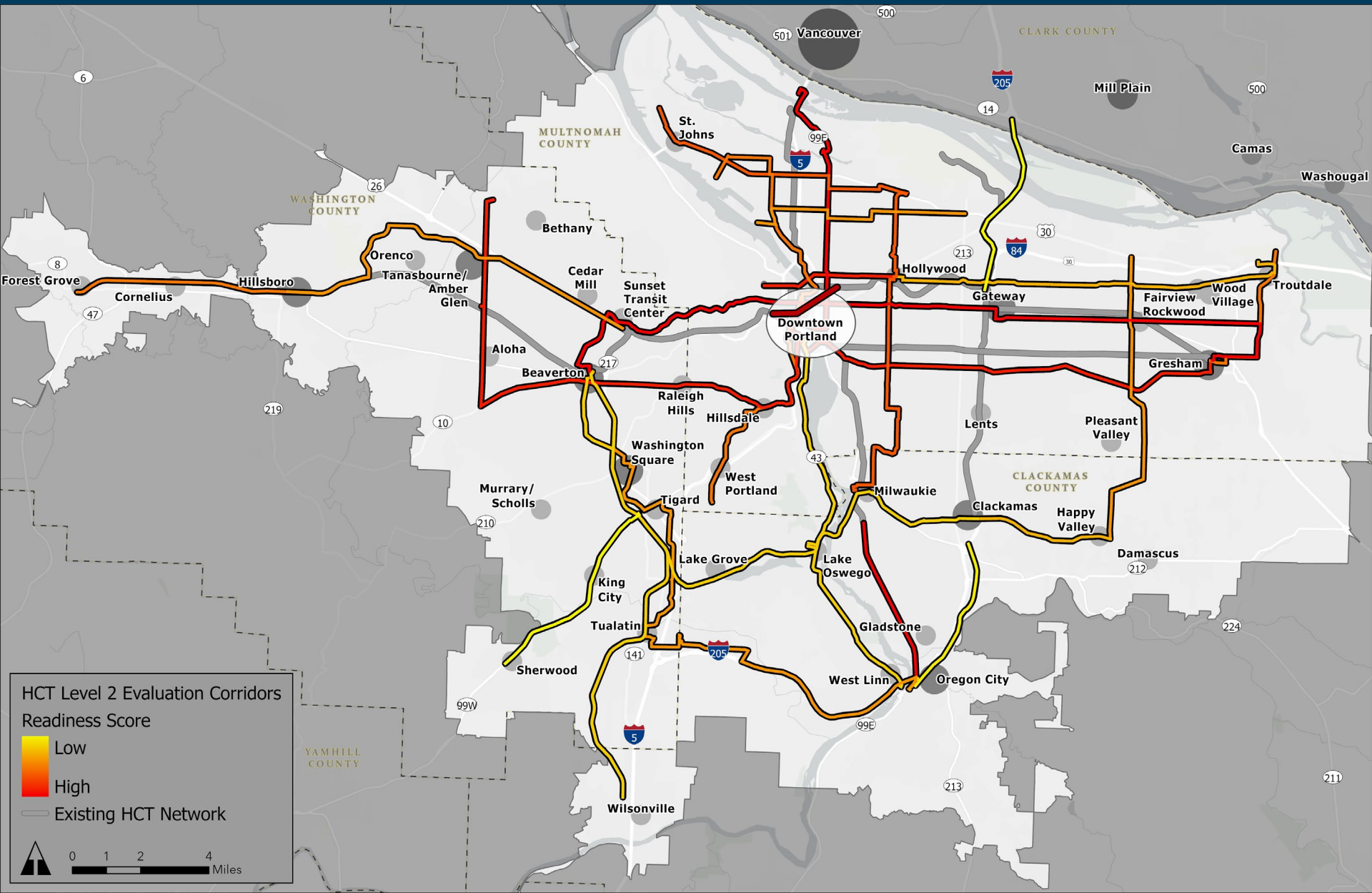
Land Use Readiness Screening



Physical Conditions



Readiness Corridor Ranking



Metro High Capacity Transit Strategy and Regional Transportation Plan Transit Update

HCT Policy Framework – Regional Transit Network Policy Review

December 2022 - **DRAFT**

Parametrix

NELSON NYGAARD

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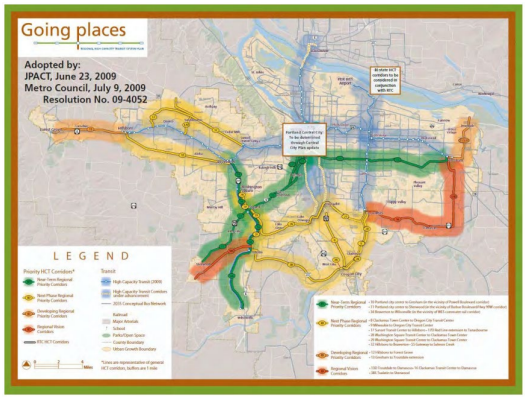
METRO HCT POLICY FRAMEWORK - REGIONAL TRANSIT NETWORK POLICY REVIEW

INTRODUCTION



In 2009, Metro adopted the first 30-year Regional High Capacity Transit (HCT) System Plan that guided investments in light rail, commuter rail, bus rapid transit and rapid streetcar in the Portland metropolitan region. The 2009 HCT Plan identified and ranked 16 corridors into four priority tiers using a multi-phase evaluation process and created the System Expansion Policy (SEP) framework for prioritizing future system expansion. The SEP framework is a process agreed to by Metro and local jurisdictions to advance high capacity transit projects as a regional priority. The framework:

- Identifies which corridors should move into the federal project development process
- Establishes a process for other corridors to advance toward development
- Measures a corridor's readiness for investment using targets such as transit supportive land use policies, ridership development plans, community support and financial feasibility.

In 2018 as part of the Regional Transportation Plan (RTP) update, the Regional Transit Strategy (RTS) was also updated and provided the following definition of HCT:

> *Our high capacity transit (HCT) system operates with the majority or all of the service in exclusive guideway. The high capacity transit system is meant to connect to regional centers and carry more transit riders than the local, regional and frequent service transit lines. HCT could include rapid streetcar, corridor-based bus rapid transit, bus rapid transit, light rail or commuter rail.*

The 2018 RTS also revised the SEP with a streamlined set of HCT Assessment and Readiness Criteria and updated the corridors included on the Regional Transit Network map. Finally, the 2018 RTS introduced the Enhanced Transit Concept (ETC), which improves transit speed and reliability on the

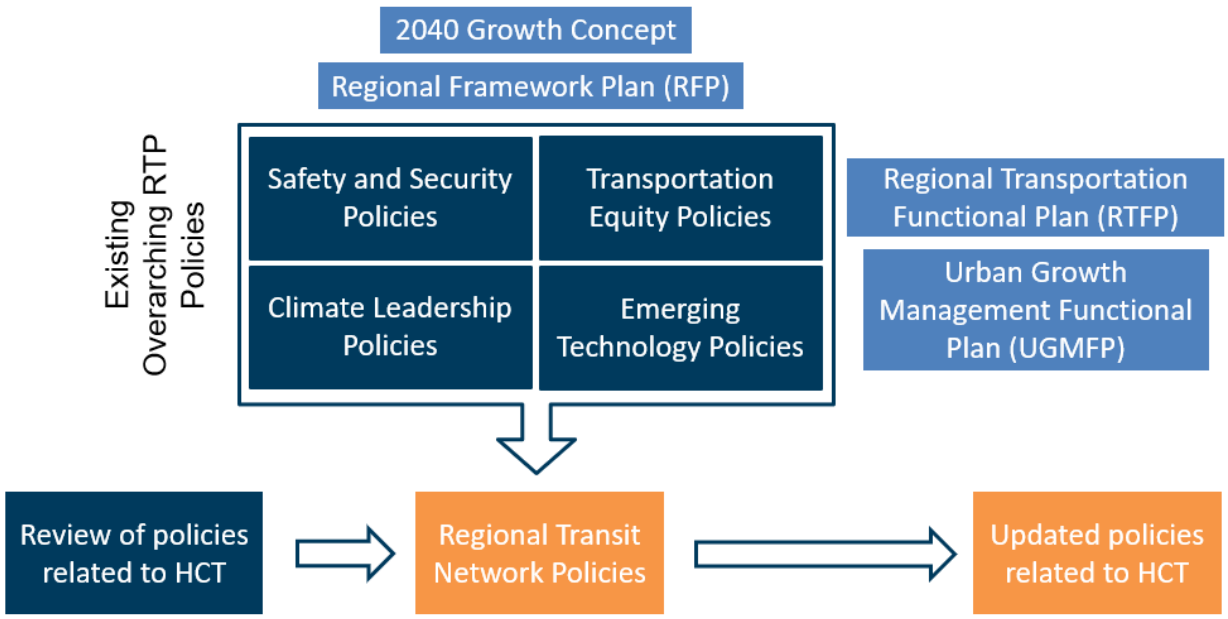
most congested existing and planned frequent service bus or streetcar lines. ETC is now known as "Better Bus."

As part of the 2023 Regional Transportation Plan update, **this HCT Policy Framework memo** provides an important first step in updating the Regional High Capacity Transit Strategy, a component of the Regional Transit Strategy. This memo focuses on a review of local, regional, state and federal policies as they relate to High Capacity Transit and suggests policy updates to reflect the region's current and future priorities and desired outcomes related to Equity, Safety, Climate and Mobility. To provide context and guidance as part of this policy review, this memo also identifies emerging trends impacting HCT and provides key takeaways from peer regions throughout the country. The suggested policy updates at the end of this memo will ultimately inform the evaluation criteria used to prioritize HCT corridors that will be included in the 2023 RTP update.

This memo focuses on reviewing and updating the existing transit-specific policies included in the Regional Transit Network, which will be an element of the 2023 Regional Transportation Plan. The 2023 RTP update continues to support the **2040 Growth Concept**, the region's long-range land use and transportation plan for managing growth, and the **Regional Framework Plan (RFP)** identifies regional policies to implement the 2040 Growth Concept. As part of Metro's code, two functional plans – the **Regional Transportation Functional Plan (RTFP)** and **Urban Growth Management Functional Plan (UGMFP)** – provide additional guidance to local jurisdictions to implement the policies in the RTP.

In addition to the transit-specific policies included as part of the Regional Transit Network, the RTP includes four overarching system policies related to **safety and security**, **transportation equity**, **climate leadership**, and **emerging technologies**. These policies will guide all other policies included in the RTP, including for High Capacity Transit. The relationship of each of the foundational plans that helped frame this policy review is summarized in **Figure 1** below.

Figure 1 Regional Transit Network Policies in Relation to the RTP and Other Metro Plans



The HCT Policy Framework memo is organized into the following sections:

- Existing Regional Transit Network Policies
- Regional, State, and Federal plans and policy review
- Local plans and policies related to HCT
- Current issues and trends, identified through regional, state, or federal plans or initiatives
- Long-range plans and policies in peer regions
- Other key issues and trends impacting transit infrastructure and investments

This memo concludes with suggested updates to the definition of HCT and considerations for updating and expanding the eight existing Regional Transit Network policies as they relate to HCT.

PLAN AND POLICY REVIEW

Existing Regional Transit Network Policies

This section provides a brief assessment of the existing RTP Regional Transit Network policies. **Figure 2** identifies:

- **A proposed "Headline" for each policy** that succinctly communicates the theme addressed.
- **Each policy's relationship to 2023 RTP priority outcomes**, which include Equity, Safety, Climate, and Mobility.[1]
- **Each policy's relationship to HCT**. The relationships are identified in one of three ways:
  - **Foundational to Role** of HCT in the region and the definition of HCT (Policy 4).
  - **Directs Investments** by directly influencing key evaluation/readiness measure(s) used for HCT decision making.
  - **Influences Outcomes** of HCT system investments.

Examples for how the policies were determined to relate to HCT include:

- Policy 1 can direct HCT investments to address disparities such as travel time for equity priority communities, through the criteria used to prioritize potential HCT projects. Policy 1 can also influence the outcomes of HCT projects through assessing displacement risk and putting into place partnerships and policies to prevent displacement.
- Policy 6 is not identified as directing HCT investments – using existing quality of the pedestrian and bicycling environment to prioritize investments may exclude projects that could help advance improvements. However, Policy 6 can influence HCT outcomes through improvements to walking and biking access around HCT stations in advance of or as part of a project.

[1] Metro, 2023 Regional Transportation Plan Update Work Plan, May 2022

Based on this assessment of existing Regional Transit Network policies, those that are most directly relevant to identifying and prioritizing HCT investments – and thus the focus of this memo – include:

- Policy 1: **System Quality and Equity**
- Policy 2: **Maintenance and Resiliency**
- Policy 3: **Coverage and Frequency**
- Policy 4: **High Capacity Transit**

The following two Regional Transit Network policies influence outcomes but are not foundational to the role of HCT nor direct investments:

- Policy 5: **Intercity and Inter-Regional Transit**
- Policy 6: **Access to Transit**

Finally, the last two policies are important to the overall transit network but are neither foundational to the role of HCT, direct investments, nor influence overall outcomes:

- Policy 7: **Mobility Technology**
- Policy 8: **Affordability**

Figure 2 Existing Regional Transit Policies and Relationship to 2023 RTP Outcomes and to HCT

Existing Regional Transit Network Policy (2018 RTP)	*Proposed* Policy Headline(s)	2023 RTP Outcomes	Relationship to HCT
Policy 1: Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.	Service Quality and Equity	☒ Equity ☐ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes
Policy 2: Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.	Maintenance and Resiliency	☐ Equity ☒ Safety ☒ Climate ☐ Mobility	☐ Foundational to Role ☒ Directs Investments ☐ Influences Outcomes
Policy 3: Make transit more reliable and frequent by expanding regional and local frequent service transit and improving local service transit options.	Coverage and Frequency*	☐ Equity ☐ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes
Policy 4: Make transit more convenient by expanding high capacity transit; improving transit speed and reliability through the regional enhanced transit concept.	High Capacity Transit	☐ Equity ☐ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes
Policy 5: Evaluate and support expanded commuter rail and intercity transit service to neighboring communities and other destinations outside the region.	Intercity / Inter-Regional Transit	☐ Equity ☐ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☒ Influences Outcomes
Policy 6: Make transit more accessible by improving pedestrian and bicycle access to and bicycle parking at transit stops and stations and using new mobility services to improve connections to high-frequency transit when walking, bicycling or local bus service is not an option.	Access to Transit	☐ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☒ Influences Outcomes
Policy 7: Use technology to provide better, more efficient transit service – focusing on meeting the needs of people for whom conventional transit is not an option.	Mobility Technology	☒ Equity ☐ Safety ☐ Climate ☒ Mobility	☐ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes
Policy 8: Ensure that transit is affordable, especially for people who depend on transit.	Affordability	☒ Equity ☐ Safety ☐ Climate ☐ Mobility	☐ Foundational to Role ☐ Directs Investments ☐ Influences Outcomes

Note: * A proposed change in policies would create a new policy around reliability

Regional, State, and Federal Plans and Policies Related to HCT

This section identifies regional and statewide plans relevant to the HCT Policy Framework for the region. Similar to the previous section, each applicable policy in these plans is categorized by the Metro RTP outcomes (Equity, Safety, Climate, and Mobility) and its relationship to high capacity transit (HCT).

Other state or federal plans or initiatives that are relevant to the region's HCT Policy Framework were reviewed but were not included in the plan and policy review table:

- **Regional High Capacity Transit System Plan (2009).** This is the previous HCT plan for the Portland region, which is being updated through this effort, and is assumed to be reflected in more recent documents such as the Regional Transit Strategy (RTS).
- **Climate-Friendly and Equitable Communities (CFEC) Rulemaking (Ongoing)**. Rulemaking by the Department of Land Conservation and Development (DLCD) to strengthen transportation and land use planning for regions including the Portland Metro area; key outcomes including equity, climate, and housing will be addressed in the issues/trends section.
- **USDOT Equity and Justice40 in Transportation Planning**. Federal initiative to address racial equity and climate priorities, including delivering 40% of federal investments to disadvantaged communities; will be addressed in the issues/trends section.

Figure 3 Regional, State, Federal Plan Hierarchy and Policy Summary

Plan	2023 RTP Outcomes	Relationship to HCT	Considerations for Updating Regional Transit Network Policies (Foundational Considerations Bolded)
Portland Metro Transportation System Management and Operations Strategy	☒ Equity ☒ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Harm reduction ▪ Alleviating transportation system disparities ▪ **Connecting people to goods, services, and places** ▪ **Equitable transit reliability improvements** ▪ Transit system resiliency
Portland Metro and ODOT Regional Mobility Policy Update	☒ Equity ☒ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Land use and transit decision-making efficiency in movement of people and goods ▪ **Seamless, well-connected, low-carbon, convenient, and affordable mode share** ▪ **Transit system travel predictability and travel time reasonableness** ▪ Safe and comfortable mode share; equitable mobility experiences among Black, Indigenous, and People of Color (BIPOC) communities and people with low incomes, youth, older adults, and people living with disabilities
Portland Metro Regional Freight Strategy	☐ Equity ☒ Safety ☐ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Coordinating for seamless movement and better access, with less conflict with transit ▪ Delay reduction, with increases in reliability and improvements in safety, for reliable transit planning ▪ Integrating issues with planning and communicating movement issues ▪ Eliminating traffic fatalities and serious injuries caused with other modes
Portland Metro Regional Transportation Safety Strategy	☒ Equity ☒ Safety ☐ Climate ☐ Mobility	☐ Foundational to Role ☒ Directs Investments ☐ Influences Outcomes	▪ Achieve Vision Zero goals using transit as a safety mechanism ▪ Safety investments to reduce speeds and speeding at high-risk areas, increase security, and reduce crime, with prioritization of vulnerable communities ▪ Equitable safety investments to benefit people with higher crash risk, such as vulnerable communities ▪ Safety increases across modes through planning, designing, constructing, operating, and maintaining the transit system with focus on speed reduction ▪ Avoidance of repeating and/or exacerbating safety issues ▪ Consideration of safety as an adequacy metric.
Portland Metro Emerging Technology Strategy	☒ Equity ☐ Safety ☐ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Accessibility, availability, and affordability of new technologies to progress equity ▪ Usage of new technologies to improve transit, providing shared modes regionwide, and supporting transit, biking, and walking ▪ Empowering travelers with data for planning, decision-making, and managing transit ▪ Advancing public interest by preparing for, learning from, and adapting to new technological developments

Plan	2023 RTP Outcomes	Relationship to HCT	Considerations for Updating Regional Transit Network Policies (Foundational Considerations Bolded)
Portland Metro Strategic Plan to Advance Racial Equity, Diversity and Inclusion (Racial Equity Framework)	☒ Equity ☒ Safety ☐ Climate ☐ Mobility	☐ Foundational to Role ☐ Directs Investments ☒ Influences Outcomes	▪ Engaging communities of color ▪ Hiring, training, and promoting a racially diverse workforce ▪ Creating safe, welcoming services, programs, and destinations ▪ Allocating resources to advance racial equity
Portland Metro Climate Smart Strategy	☐ Equity ☒ Safety ☒ Climate ☒ Mobility	☒ Foundational to Role ☒ Directs Investments ☐ Influences Outcomes	▪ **Making transit convenient, accessible, and affordable** ▪ Making walking and biking safe and convenient ▪ Making streets safe, reliable, and connected ▪ Using technology to manage transit ▪ Providing information and incentives to increase mode share ▪ Securing funding for transit
Portland Metro Regional Active Transportation Plan	☒ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Making walking and biking the most convenient, safe, and preferrable choices for trips less than three miles ▪ Developing well-connected regional pedestrian and bicycle routes integrated with transit to prioritize safe, convenient, accessible, comfortable pedestrian and bicycle access for all ages and abilities ▪ Ensuring that regional transit and active transportation intersections equitably serve all people ▪ Complete the regional active pedestrian and bicycle networks where transit transfers are common ▪ Use data and analyses to guide transit and active transportation investments

Plan	2023 RTP Outcomes	Relationship to HCT	Considerations for Updating Regional Transit Network Policies (Foundational Considerations Bolded)
ODOT Strategic Action Plan 2021-2023	☒ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Supporting equitable operations and policies and establishing an informed and inclusive culture ▪ Promoting opportunities through transit investments, such as by working with BIPOC communities, women, and other historically and/or are currently marginalized communities ▪ Utilizing the perspectives of people who reside in communities served by Metro and who are likely to be affected by Metro decision-making ▪ Investing in the protection of vulnerable communities from environmental hazards ▪ Preserving, maintaining, and operating a multimodal transportation system and achieving a cleaner environment ▪ Ensuring the safety of transit riders and operators ▪ Providing greater transit access and broader range of mobility options while addressing climate change ▪ Investing in transit as a mechanism to manage and reduce congestion ▪ Enhancing multimodal options ▪ Implementing road usage charging to ensure revenue to maintain and improve the transit system and manage congestion
ODOT Climate Action Plan 2021-2026	☐ Equity ☒ Safety ☒ Climate ☒ Mobility	☐ Foundational to Role ☒ Directs Investments ☒ Influences Outcomes	▪ Integrating climate change and emissions reductions considerations in policy and investment frameworks ▪ Providing transit options to manage demand and reduce congestion ▪ Transitioning to an efficient transit fleet, supporting adoption of alternative fuels ▪ Maintaining and operating transit and recovering from climate impacts by using sustainable funding ▪ Increasing efficiency through investments in safety, and operations practices ▪ Utilizing sustainable products and fuels ▪ Reducing energy consumption, and reducing Metro's carbon footprint

Local Plans and Policies Related to HCT

In addition to reviewing regional, state, and federal plans and policies, relevant plans from or related to Metro area cities and/or counties were reviewed at a high level to document any policies that should be considered as part of the HCT Policy Framework. As shown in **Figure 4**, these plans included local transportation system plans (TSPs), comprehensive plans, or transit development/master plans (TDPs/TMPs), or HCT-specific plans, including the Clark County/CTRAN High Capacity Transit System Plan.

Specific plans that have recently been completed (or are currently underway) that relate to HCT and/or ETC include:

- Clackamas County completed its TDP in 2021.
- Washington County is conducting a Transit Study (completion anticipated in 2023), which will integrate the County's recent TDPs and shuttle planning study.
- The City of Portland developed the Rose Lane Vision in 2020 and the Enhanced Transit Corridors Plan in 2018, which are advancing projects to provide bus and streetcar lines with additional transit priority and help achieve the City's climate and transportation justice goals.
- TriMet is conducting the Forward Together Comprehensive Service Analysis, which will recommend a revised bus network concept to reflect shifts in ridership and travel demand that have occurred since the COVID-19 pandemic. TriMet also completed an Express and Limited Stop Bus Study (2021) to identify where these services could improve ridership and access to jobs, including for equity priority populations. These studies will shape the agency's FY2023 Service Plan.
- TriMet is also completing its first FX (Frequent Express) line in the Division Street corridor; Metro, TriMet, and the City of Portland are working on planning for the 82nd Avenue corridor; and TriMet is leading the Tualatin Valley (TV) Highway BRT Study, connecting Beaverton, Hillsboro, and Forest Grove, where TriMet's Line 57 operates today.
- The Southwest Corridor project, connecting downtown Portland with SW Portland, Tigard and Tualatin, has a Locally Preferred Alternative and Record of Decision from the FTA.
- Metro and TriMet are continuing the ETC program, now known as Better Bus, to improve transit speed and reliability across the region. Where the previous implementation of this program focused on the most congested locations on the system with the highest ridership, the next phase will look at other locations across the region to improve bus operations.

Outside of the TriMet service district:

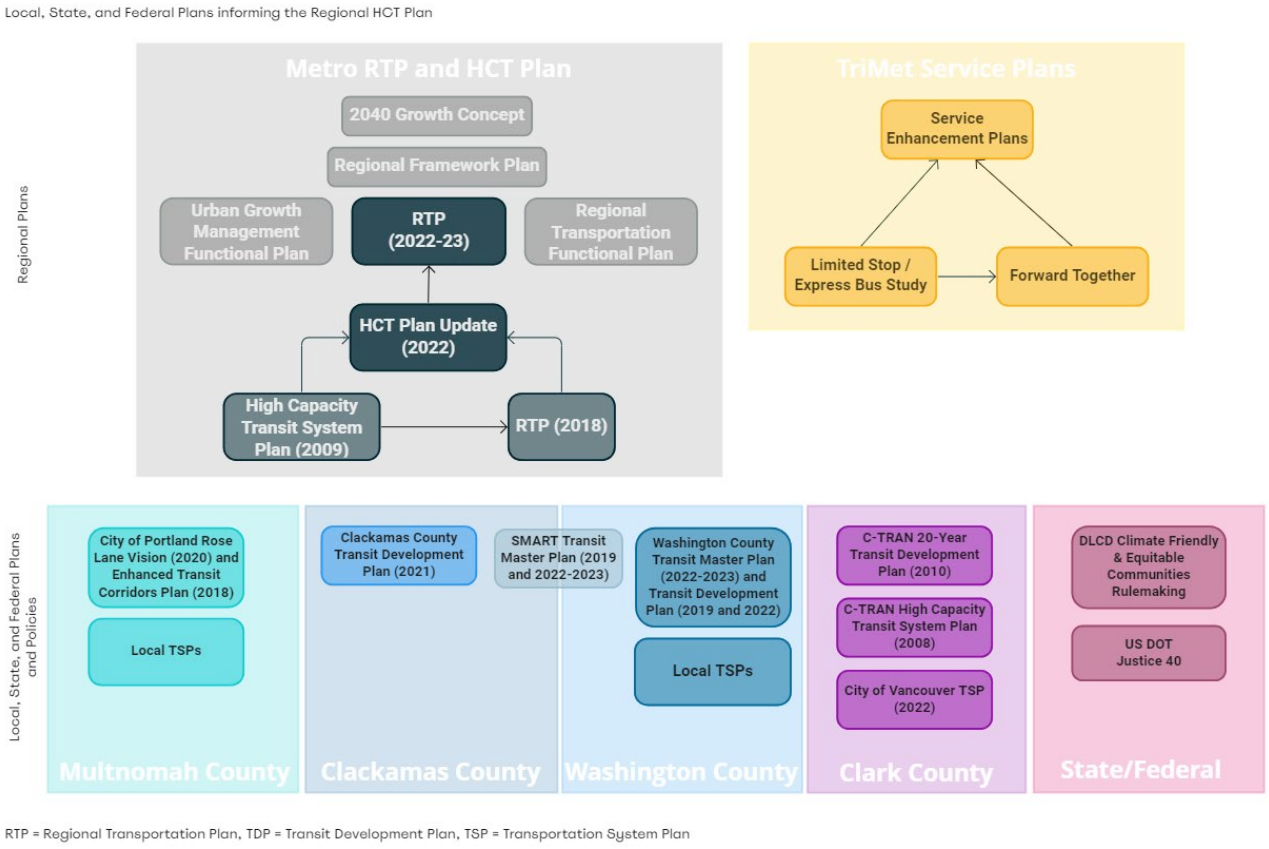
- The Interstate Bridge Replacement's Locally Preferred Alternative recommends a MAX Yellow Line extension from Expo Center across the Interstate Bridge to Evergreen in Vancouver, connecting to C-TRAN's Vine Bus Rapid Transit system.
- The City of Wilsonville (SMART) is updating its TMP (completion anticipated in 2023).

- The Clark County (C-TRAN) High Capacity Transit System Plan was completed in 2008; a TSP update for the City of Vancouver, which includes Enhanced Transit Corridors, is underway (completion anticipated in late 2022).
- C-TRAN has also completed development of several BRT corridors in recent years and others are in the planning stages.

As noted above, the Department of Land Conservation and Development (DLCD) has been conducting Climate-Friendly and Equitable Communities (CFEC) rulemaking, filed on August 22, 2022, to help local governments revise plans to reduce greenhouse gas emissions. Similarly, the US DOT has undertaken the Justice 40 initiative with a goal of delivering 40% of the overall benefits of federal investments in climate and clean energy, including sustainable transportation, to disadvantaged communities.

In addition to informing the HCT policy framework, these plans and studies can also be consulted to validate the universe of potential HCT projects considered in the HCT Plan update as well as inform criteria used in the evaluation.

Figure 4 Regional Plan Hierarchy and Policy Summary



Review of Plans and Policies from Peer Regions or other Agencies

This section includes a high-level review of long-range planning documents from peer regions. The purpose of the peer review is to inform the HCT Policy Framework, but key findings from the peer review could also be utilized in other dimensions of the HCT Plan and/or RTP updates, such as the development of corridor evaluation criteria.

Peer Identification

Key criteria for selecting the peer regions or agencies included:

- Preference for plans/policies developed after 2020 that address current issues and trends such as recovery from the COVID-19 pandemic.
- Identify high capacity transit in their goals and policies.
- Include/address multiple HCT modes (e.g., rail and bus).
- Potential HCT lessons learned related to RTP investment priorities (safety, equity, climate and mobility).
- Geographic distribution.

Thirteen regions were identified in **Figure 5** below (See also **Figure A-1 in Appendix A** for more detail). These were narrowed to seven for high-level consideration and the project team then focused on four peers for more detailed review.

Figure 5 Selected Peers

Region	Agency	Document	Year Published	HCT Modes
Seattle	Puget Sound Regional Council (PSRC), and/or Sound Transit (ST)	Regional Transportation Plan (2022-2050)	2021	Link and RapidRide
	King County Metro	Metro Connects Long-Range Plan		
San Francisco	Metropolitan Transportation Commission (MTC) and/or SFMTA/ConnectSF	Plan Bay Area 2050	2021	BART, LRT (e.g., Muni Metro), BRT and RapidBus (e.g., Muni Rapid)
Los Angeles	LA County MTA (Metro)	Long Range Transportation Plan	2020	BRT and LRT
Minneapolis-St. Paul	Metropolitan Council	Transportation Policy Plan	2020	LRT and BRT
Austin	Capital Area MPO (CAMPO)	2045 Transportation Plan (and Regional Transit Study)	2020	LRT MetroRail) and BRT (MetroRapid)
Boston	Metropolitan Area Planning Council (MAPC), Massachusetts Bay Transportation Authority (MBTA), The Greater Boston BRT Study Group	MetroCommon 2050 | Better Rapid Transit for Greater Boston | Focus40	2015-2021	BRT (Silver Line and additional prioritized corridors) and LRT and Heavy Rail (Commuter Rail, Blue, Green, Orange, and Red Lines)
Philadelphia	Delaware Valley Regional Planning Commission	Connections 2050 | StoryMap | Policy Manual | Process and Analysis Manual | Major Regional Projects	2021	BRT, Streetcar, LRT, Heavy Rail, High-Speed Rail
	City of Philadelphia, Southeastern Pennsylvania Transportation Authority	The Philadelphia Transit Plan		

Summary of Common Themes and Key Takeaways

Common themes and notable examples from the peer review are summarized below, organized by the four RTP priority outcomes. Examples include cases where policy shifts had a clear impact of prioritization criteria and plan outcomes.

- **Equity considerations for vulnerable communities and transit riders**
  - All peer regions have goals or objectives regarding the transit needs of women, people of color, people with low incomes, or people experiencing houselessness.
  - Direct feedback from community groups representing vulnerable populations (such as the Equity Cabinet for King County Metro) was critical in identifying specific policy areas to address in plan updates.
  - Many regions are also addressing affordability, such as through implementation of a means-based fare for low-income transit riders in the Boston region, funded with legislative support for consistent funding for operations.
  - All regions address how equity can be achieved by transit investments for priority communities, such as how communities access transit and destinations via transit.
  - In the City of San Francisco's ConnectSF program, the pandemic refocused investment priorities on serving essential trips citywide, including through quick-build capital improvements to maximize scarce resources. Model-based criteria used to prioritize investments (including access to jobs and services, ridership, cost-effectiveness, and travel time) looked at both equity priority communities and at low-income households earning below 200% of the federal poverty level, in addition to overall performance citywide.
- **State of good repair and safety / HCT system maintenance and reliability**
  - All regions seek to achieve safety goals in terms of how people wait for, access, or experience transit, some with a focus on Vision Zero targets systemwide.
  - 6 of 7 regions emphasize the need for transit infrastructure maintenance, preservation, reliability, or lifecycle expansion.
  - Prioritizing equity outcomes in the greater Philadelphia region included universal design and user experience, such as implementation of full ADA access, all-door boarding, safer and cleaner services, and better amenities at stops and for passengers.
- **System-level climate goals or objectives**
  - All regions specify climate goals or objectives that are part of other climate-related goals, such as stewardship or safety. Five regions prioritize a net-zero emissions transit fleet, such as procuring battery-electric buses and implementation of associated charging infrastructure, with a policy goal to achieve procuring 100% renewable electricity.

  - All regions prioritize VMT reduction goals, with Los Angeles and Philadelphia introducing concepts for VMT fees to generate revenue for transit investments and lower the dependence on the federal gas tax.
  - The urgency of addressing climate change was an impetus and key message around prioritizing transit improvements and related programs and initiatives, to attract additional trips to transit and other sustainable modes. For example, greater Boston has a goal to achieve a net-zero carbon region, which has an objective that all land travel is by carbon-free modes, such as walking, biking, and electrified public transit

- **Quality of service and mobility improvements for bus or rail**
  - All regions are pursuing bus or rail expansions or infrastructure improvements; for example, Seattle, Los Angeles, Boston, and greater Philadelphia have specific HCT and ETC enhancement goals, such as increasing the capacity of the transit fleet for new and existing services, expanding the HCT network to meet and respond to changing needs, or adding bus lanes and other features to speed up service and eliminate delay.
  - All regions emphasize the importance of transit and transportation system integration to expand travel choices and mode share; enhance local and regional transit connectivity; or improve transit frequencies, operations, or safety.

Peer Review Details

Please see **Appendix A** for additional peer review details.

Additional Key Issues and Trends

In addition to exploring how peer regions have structured their long-range transportation plans focused on HCT, it is important to note that several recent issues and trends have emerged over the past five years that are directly impacting local, state, and federal transportation policies. Metro and TriMet have recently summarized some of these issues and trends in separate but related memos: Metro Emerging Trends and TriMet Forward Together Emerging Trends. In addition, very recent policies related to climate change and the economy continue to shape how regions will adapt their transportation policies in the coming years.

The following is a summary of these issues and trends that were considered when conducting the HCT Policy Framework analysis:

- Transit service and ridership declines, including the decrease in peak commute demand
- Inequities and social justice
- Sustained reliance or preference for remote work
- Continued expansion of e-commerce
- Continued advancements in vehicle electrification (EVs and e-bikes)
- Issues with personal safety, especially for BIPOC riders
- Increases in severe and fatal crashes
- Increases in recreational cycling
- Challenges associated with agency recovery and innovation
- Continued gentrification and affordability issues, including people experiencing houselessness
- Inflation and increases in fuel prices
- Staffing shortages across many industries, including transit

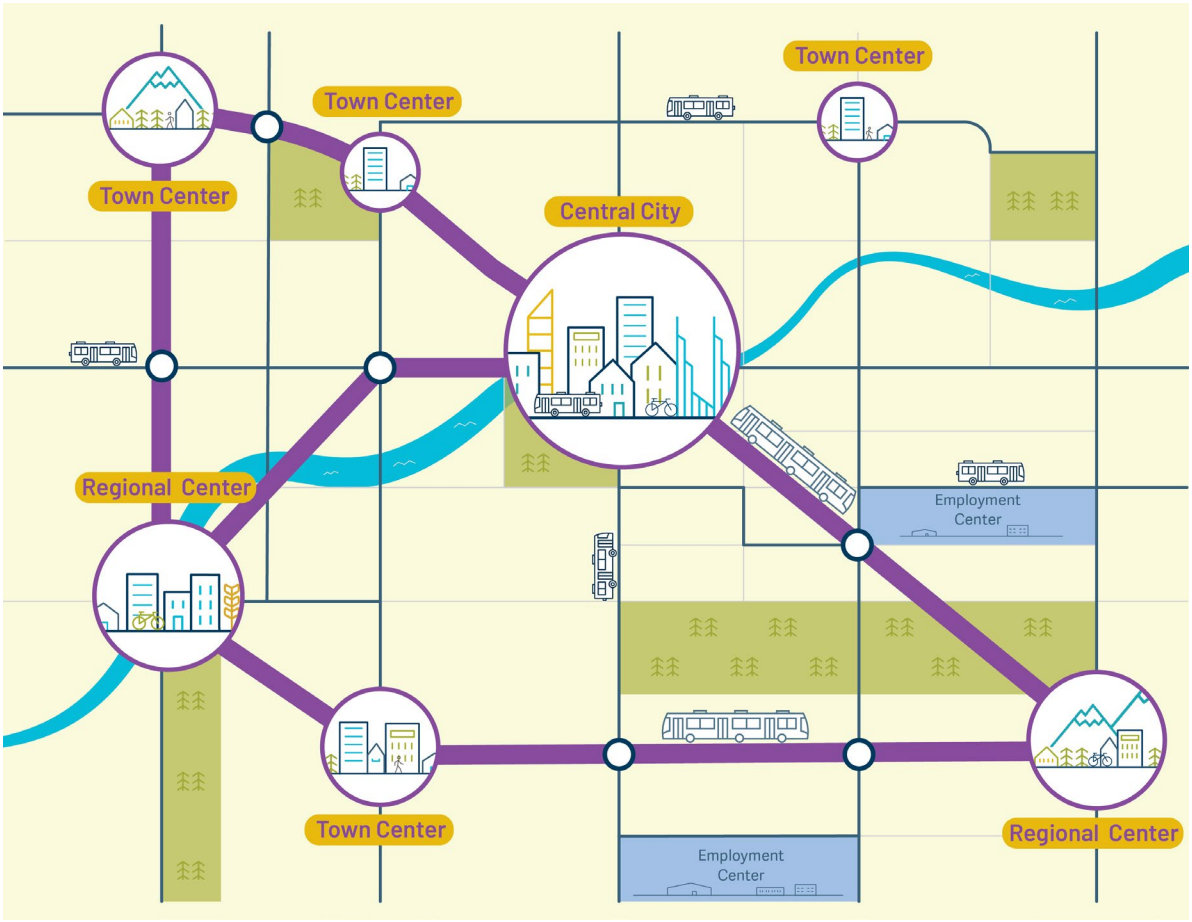
HCT DEFINITION AND POLICY GAP ANALYSIS

The HCT Policy Framework Analysis concludes with considerations for how High Capacity Transit is defined in our region as well as considerations for updating the eight Regional Transit Network policies. This analysis considers not only the review of local, regional, state, and federal policies, but also key findings from the peer regions, as discussed above.

High Capacity Transit Definition Considerations

The 2040 Growth Concept sets forth a vision for connecting the central city to regional centers like Gresham, Clackamas, and Hillsboro with fast and reliable high capacity transit (HCT), helping the region concentrate development and growth in its centers and corridors. High capacity transit carries high volumes of passengers quickly and efficiently, and serves a regional travel market with relatively long trip lengths to provide a viable alternative to the automobile in terms of convenience and travel time.

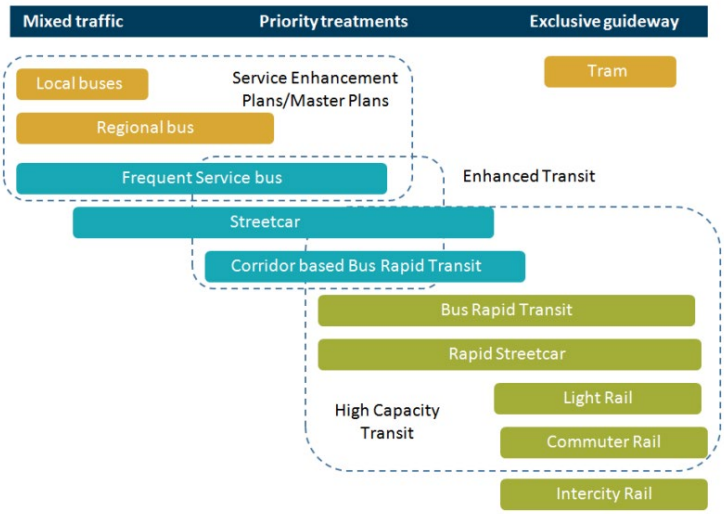
Figure 6 Regional Transit Network Concept



High capacity transit is defined in multiple places in the 2018 Regional Transportation Plan, including in the System Policies chapter (pages 3-77, 3-88), in Glossary of Terms (page G-4), and in the multiple sections of the separate Regional Transit Strategy. While there are minor differences in how HCT is defined, the following introductory paragraph is perhaps the most direct at defining HCT (from page 4-10 of the Regional Transit Strategy):

> **"Our high capacity transit (HCT) system operates with the majority or all of the service in exclusive guideway. The high capacity transit system is meant to connect to regional centers and carry more transit riders than the local, regional and frequent service transit lines. HCT could include rapid streetcar, corridor-based bus rapid transit, bus rapid transit, light rail or commuter rail."**

As illustrated in the following graphic (from page 4-6 of the Regional Transit Strategy), there is also some overlap between Enhanced Transit and HCT, where some streetcar or corridor-based Bus Rapid Transit applications could be considered either High Capacity Transit or Enhanced Transit. Other modes, including Commuter Rail, Light Rail, Rapid Streetcar and Bus Rapid Transit are exclusively defined as HCT. It is important to note that the term "corridor-based Bus Rapid Transit" is not fully defined in the 2018 RTP.



To clarify how we define High Capacity Transit, the following considerations are offered for this update of the High Capacity Transit Strategy:

- Consider leading with the *purpose* of HCT in the regional transit network, and to integrate equity into the definition by emphasizing that it connects *people* to regional centers
- Consider stating that HCT is *high-quality transit* (i.e., fast, frequent, safe, and reliable) before its physical attributes (operating with the majority or all of the service in exclusive guideway)

The first half of the HCT definition in **blue** could be updated as follows:

> **"The high capacity transit system is meant to serve as the backbone of the transportation network, connect people to**

> **regional centers *and major town centers* with high-quality service (fast, frequent, safe and reliable), and carry more transit riders more comfortably than the local, regional and frequent service transit lines. HCT operates in exclusive guideway, to the greatest extent possible, and could include light rail, commuter rail, rapid streetcar, streetcar, bus rapid transit, and corridor-based bus rapid transit"**

The last half of the definition in **green** emphasizes that HCT provides the needed capacity to serve the region's highest demand corridors with a variety of modes and levels of transit priority, ranging from light rail or BRT with "majority exclusive guideway" to corridor-based BRT or streetcar modes that have a mix of exclusive and shared right of way (such as the FX2-Division high capacity bus service).

Enhanced Transit Concept (ETC) / Better Bus

Another important part of defining High Capacity Transit and reviewing the Regional Transit Network policies related to HCT is clarifying the role of the Enhanced Transit Concept (ETC), now known as Better Bus. ETC was introduced in the 2018 Regional Transit Strategy and is defined as follows (from page 4-9 of the RTS):

> ***The purpose of ETC is to improve transit speed and reliability on our most congested existing and planned frequent service bus or streetcar lines.***

The RTP Glossary further clarifies that:

- "Enhanced transit is a set of street design, signal, and other improvements that improve transit capacity, reliability and travel time along major Frequent Service bus lines…" (RTS page G-9)
- "…Enhanced Transit encompasses a range of investments comprised of capital and operational treatments of moderate cost. It can be deployed relatively quickly in comparison to larger transit capital projects, such as building light rail." (RTS page G-9)

While no changes to how ETC is defined are suggested, several policy considerations are provided to strengthen and clarify the role of ETC in the Regional Transit System.

Transit Mode Characteristics and Relationships to Land Use

The graphic below identifies the transit modes that are part of the regional transit system, including their general service quality characteristics, and the land use density that is typically appropriate to warrant a capital investment in building a HCT project. The graphic identifies the characteristics of regional transit modes (both HCT and other modes serving the region) and shows which modes fall into the high-capacity transit category. It includes:

- **Transit Modes:**
  - HCT Modes: Commuter Rail, Light Rail, BRT, Corridor-Based BRT (e.g., RapidBus), Rapid Streetcar, and Streetcar; Streetcar may be considered HCT depending on the context
  - Non-HCT Bus Modes: Frequent Bus, Regional Bus
  - Other modes:
    - Aerial Tram, Intercity Rail
    - Vanpool, microtransit, etc. are included as potential modes to be considered in the future Metro Access to Transit Study.
- **Transit Characteristics:**
  - Level of Transit Prioritization (e.g., Speed & Reliability), Frequency, Market Demand, Passenger Capacity, Transit Access Shed, Stop/Station Amenities, Capital Cost (per passenger), Operating Cost (per passenger)

The following graphic illustrates the essential characteristics of high-capacity transit that work together to provide high-quality connections around the region, consistent with the HCT definition and vision.

Figure 6 What is High Capacity Transit?

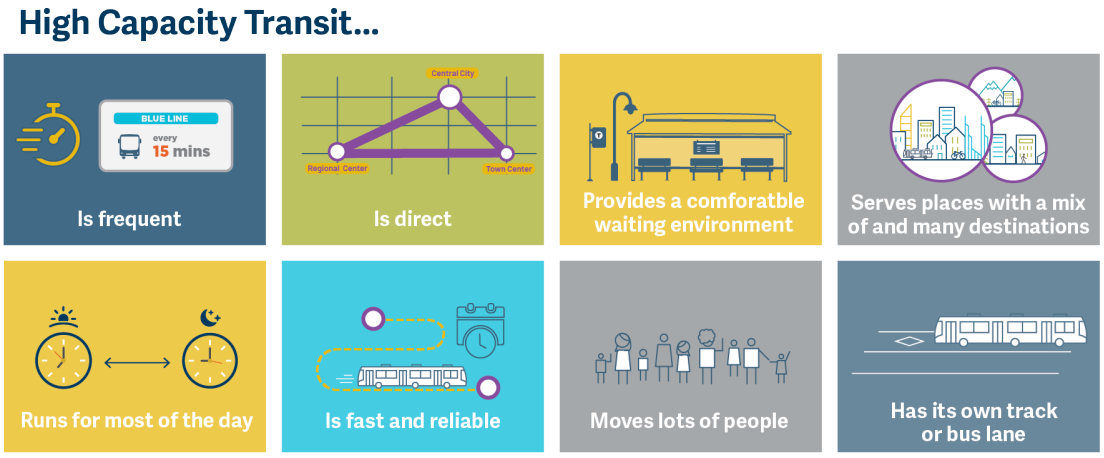
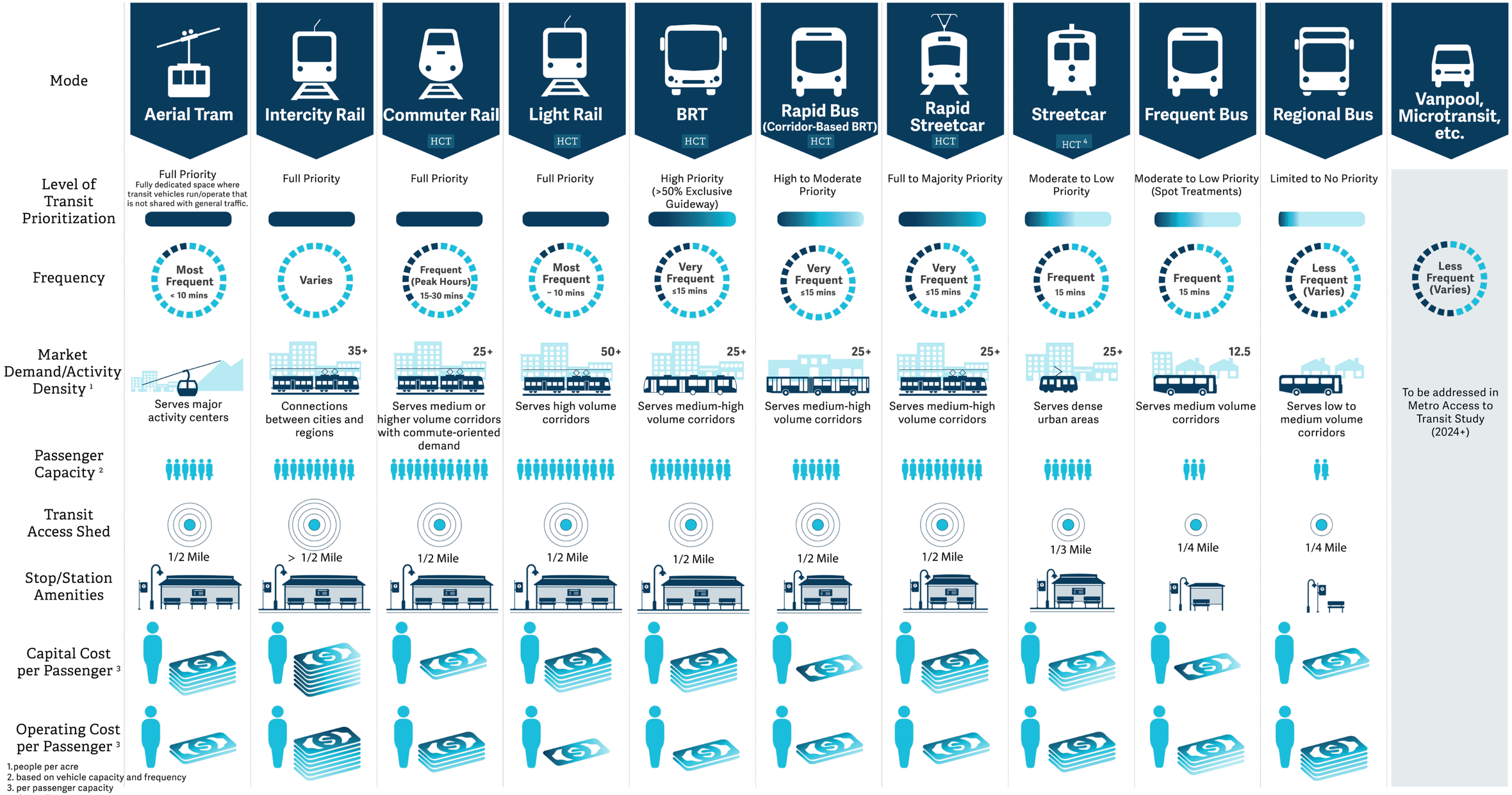


Figure 7 Characteristics of High-Capacity Transit



1.people per acre
2. based on vehicle capacity and frequency
3. per passenger capacity
4. depending on context

Regional Transit Network Policy Considerations

Based on the review of local, regional, state, and federal plans and policies, as well as the peer review and overview of key issues and trends, several areas have emerged as a focus of the Regional Transit Network policy updates:

- **System Quality and Equity.** Equity has long been a priority in making transportation planning decisions in the region and was one of the overarching policies included in the 2018 RTP. The 2023 RTP includes equity as one of the four desired outcomes and all network policies will be updated to further strengthen equity as a regional priority. The importance of dignified, high-quality service should also be emphasized to make transit work for everyone. As such, **Policy 1: Service Quality** is updated and clarified; **Policy 2: Equity** is updated and separated into a new policy.
- **Climate change.** While climate leadership is one of the overarching policies from the 2018 RTP, and one of the desired outcomes for the 2023 RTP update, there are no specific Regional Transit Network policies focused exclusively on sustainability and the environment. A new policy (**Policy 3: Climate Change**) is proposed focusing on how the Regional Transit Network should address climate change.
- **Maintenance and Resiliency.** Reliability is integrated into **Policy 4: Maintenance and Resiliency** to better integrate it as a key outcome of a system that is preserved and maintained in a state of good repair.
- **HCT and ETC.** The current **Policy 4: High Capacity Transit** (renumbered to Policy 5) includes both HCT and ETC in a single policy. To strengthen and clarify the role of both HCT and ETC in the regional transit network, creating **Policy 7: Reliable and Enhanced Transit** addresses the separate role of ETC as a tool for increasing reliability of the transit system.
- **Clear policy headlines.** All of the suggested modifications to the Regional Transit Network policies focus on a primary theme, so simple headlines are offered for each.

Figure 8 below lists each of the 2018 Regional Transit Network policies and provides suggested updates to the policies most related to high capacity transit.

Figure 8 Policy Framework Gap Analysis

Existing #	Revised #	Proposed Headline	Existing Policy Text	Gaps / Considerations Addressed	Updated Policy Text Considerations
1	1	**System Quality**	*Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.*	▪ Separated existing Policy 1 into two policies ▪ Aligned with overarching Transportation Equity Policy 3 ▪ Integrated quality of service into policy language	Provide a high-quality, safe, and accessible system that makes transit a convenient and comfortable transportation choice for everyone to use.
	2	**Equity**			Ensure that the regional transit network equitably prioritizes service to those who rely on transit or lack travel options; makes service, amenities, and access safe and secure; improves quality of life (e.g., air quality); and proactively supports stability of vulnerable communities, particularly communities of color and other historically marginalized communities.[2]
N/A	3	**Climate Change**	*N/A*	▪ Strengthen policies to focus on transit's role in addressing climate change	Prioritize our investments to create a transit system that encourages people to ride transit rather than drive alone and to support transitioning to a clean fleet that aspires for net zero GhG emissions, enabling us to meet our state, regional, and local climate goals.
2	4	**Maintenance and Resiliency**	*Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.*	▪ Incorporated reliability into State of Good Repair	Preserve and maintain the region's transit infrastructure in a manner that improves safety, reliability, and resiliency while minimizing life-cycle cost and impact on the environment.

[2] Historically marginalized communities are areas with high concentrations (compared to regional average) of people of color, people with low-incomes, people with limited English proficiency, older adults and/or young people.

Existing #	Revised #	Proposed Headline	Existing Policy Text	Gaps / Considerations Addressed	Updated Policy Text Considerations
4	**5**	**High Capacity Transit**	*Make transit more convenient by expanding high capacity transit; improving transit speed and reliability through the regional enhanced transit concept.*	▪ Align with equity and climate outcomes and HCT definition ▪ Reframe "convenient" around equity ▪ Revise description of capacity	Complete and strengthen a well-connected high capacity transit network to serve as the backbone of the transportation system. Corridors should generally be spaced at least one half-mile to one mile or more apart and serve mobility corridors with the highest travel demand. High capacity transit prioritizes transit speed and reliability to connect regional centers with the Central City, link regional centers with each other, and link regional centers to major town centers.[3]
3	**6**	**Coverage and Frequency**	*Make transit more reliable and frequent by expanding regional and local frequent service transit and improving local service transit options.*	▪ Moved reliability and the Enhanced Transit Concept to a new policy (see Policy 7)	Complete a well-connected network of local and regional transit on most arterial streets – prioritizing expanding all-day frequent service along mobility corridors and main streets linking town centers to each other and neighborhoods to centers.
3 and 4	**7**	**Reliability**	*See Policy #4*	▪ Created a separate policy focused on reliability that clarifies the role of ETC in the regional transit network	Through the Better Bus program, prioritize capital and traffic operational treatments identified in the Enhanced Transit Toolbox in key locations or corridors to improve transit speed and reliability for frequent service.
5	**8**	**Intercity / Inter-Regional Transit**	*Evaluate and support expanded commuter rail and intercity transit service to neighboring communities and other destinations outside the region.*	▪ No proposed changes	

[3] The regional "mobility corridor" concept refers to a network of integrated transportation corridors that moves people and goods between and within subareas of the region. These transportation corridors influence the development and function of the land uses they serve and are defined by the major centers set forth in the Region 2040 Growth Concept. High capacity transit, along with frequent bus service and pedestrian/bicycle connections to transit, play an important role in moving people in these corridors. (2018 Regional Transportation Plan, Section 3.4.1)

Existing #	Revised #	Proposed Headline	Existing Policy Text	Gaps / Considerations Addressed	Updated Policy Text Considerations
6	**9**	**Access to Transit**	*Make transit more accessible by improving pedestrian and bicycle access to and bicycle parking at transit stops and stations and using new mobility services to improve connections to high-frequency transit when walking, bicycling or local bus service is not an option.*	▪ No proposed changes	
7	**10**	**Mobility Technology**	*Use technology to provide better, more efficient transit service – focusing on meeting the needs of people for whom conventional transit is not an option.*	▪ No proposed changes	
8	**11**	**Affordability**	*Ensure that transit is affordable, especially for people who depend on transit.*	▪ No proposed changes	

Notes:

Green – proposed update or addition

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DRAFT TECHNICAL MEMORANDUM

DATE:	November 17, 2022
TO:	Ally Holmqvist, Metro Metro HCT Strategy Update PMT
FROM:	Chad Tinsley, Parametrix Ryan Farncomb, Parametrix Kelly Betteridge, Parametrix Oren Eshel, Nelson/Nygaard Tomoko Delatorre, Nelson/Nygaard Paul Lutey, Nelson/Nygaard
SUBJECT:	HCT Corridor Analysis Approach to Identify "Big Moves"
CC:	Project file
PROJECT NAME:	Metro High Capacity Transit (HCT) Strategy Update

1 INTRODUCTION

This memo describes an approach to identify "Big Moves" as part of the corridor identification and screening process for the High Capacity Transit (HCT) System Strategy Update (HCT Update) project. This analysis would complement the Level 1 screening to identify candidate HCT corridors (HCT Screening) for inclusion in the regional HCT system vision, as described in previous memos. The HCT "Level 1" Screening process analyzed existing and planned frequent service corridors as well as corridors identified through the original HCT Plan in 2009 to help identify the universe of corridors to consider in the HCT Evaluation. However, since the screening is primarily based on corridors aligned with the existing TriMet service network, it may not identify travel "desire lines" where the existing transit network does not provide a convenient connection that people would choose for their trip. The project team is proposing an approach to help confirm needs identified through the screening process and assess additional connections that may not have been identified through the screening process:

1. Where current and future travel demand are strong
2. Where the current transit system does not provide a connection or a high quality connection

Connections with strong demand and lower-quality transit may be high priorities to evaluate for HCT, or other types of transit service (HCT may not be the most suitable mode for all areas). This analysis could confirm the need for corridors already identified through the screening process as well as suggest additional connections that should be evaluated as part of the HCT Strategy Update. Connections with strong demand and a low-quality transit connection could suggest additional corridors to evaluate for HCT. HCT projects could also be identified to strengthen existing parts of the HCT system that are only of moderate quality.

2 "BIG MOVES" CORRIDOR IDENTIFICATION APPROACH

2.1 Travel Demand Analysis Zones

Analysis zones were developed based on the following approach:

- Start with Metro Concept Analysis Center (2040) geographies
- Include City of Portland Town Center designations, based on the City of Portland Centers GIS layer and/or the map in Chapter 3 of the Comprehensive Plan (page 30): Belmont-Hawthorne-Division, Interstate/Killingsworth, Midway, and Northwest District
- Select Transportation Analysis Zones (TAZs) overlapping with the above geographies
- Identify additional TAZs as either additions to the above geographies or as additional geographies, including:
  - Major institutions (major hospitals, universities, etc.), such as OHSU.
  - Major employment areas, based on Longitudinal Household Employment Dynamics (LEHD) data and Metro model 2040 projections, using a threshold of 4,000 jobs in a TAZ and grouping adjacent TAZs with employment at or close to the threshold.
- Portland Central City Zones were disaggregated as follows for initial analysis, given the high concentration of trips, but could be reaggregated at a later stage of the process or for representation purposes.
  - Downtown – South, Central, and North
  - West of Downtown (west of I-405, north of Burnside)
  - Northwest Portland – Northwest District (corresponding to the City of Portland Town Center), Outer Northwest, and Northwest Industrial area
  - South Waterfront (with the OHSU Marquam Hill Campus as a separate geography)
  - Central Eastside – South and North
  - Rose Quarter/Albina West
  - Lloyd District
  - Albina East

Figure 1 shows the analysis zones.

2.2 Travel Demand

Travel demand data was aggregated to the above centers-based travel demand zone structure. The data was normalized using the area of the zones to account for the varying geographic size (and density of travel demand) of each area.

The primary travel demand measure used was future travel demand from the Metro model:

- Future (2040) Person Trips, both directions, Total and Normalized for area of the zone (per square mile)

Secondary travel demand measures were used to provide an understanding of more recent changes to travel demand, including effects of the pandemic:

- Fall 2021 person trips from Replica data,[1] both directions, Total and Normalized for area of the zone (per square mile), including trips by people earning less than 200% of the federal poverty level and estimate transit person trips
- Fall 2019 person trips for comparison with current (baseline) person trips from the Metro model

Travel demand measures were classified into five categories.

2.3 Service Quality

For purposes of this analysis, travel time was used as a proxy for service quality. Transit travel time was compared to auto travel times to understand the relative convenience of making a particular trip by transit versus driving.

- A representative point was selected for each analysis zone. If existing high capacity transit service was present, a HCT station was selected so that access time to/from destinations was not considered in evaluating how well a geography is generally served by the HCT system.
- Google Maps was used (via an automated query) to determine: 1. Auto travel time and 2. Transit travel time for each zone-to-zone connection. A trip time of 3 pm on a weekday (Wednesday) was specified. Analysis was run in both directions and the highest ratio used.
- A ratio of the transit travel time to the auto travel time was calculated. A ratio of 2.0 would mean that a transit trip takes twice as long as a trip made by driving.

The transit to auto travel time ratio was classified into five categories using the following breakpoints:

- Up to 1.1 (Transit competitive with auto)
- > 1.1 to 1.5
- > 1.5 to 2.4
- 2.5 to 3.9
- 4.0 or more (Transit takes significantly longer than driving)

[1] Replica is an activity-based transportation model in which travel demand is derived from people's daily activity patterns, including de-identified mobile location and demographic data sources.

Figure 1 Map of Analysis Zones

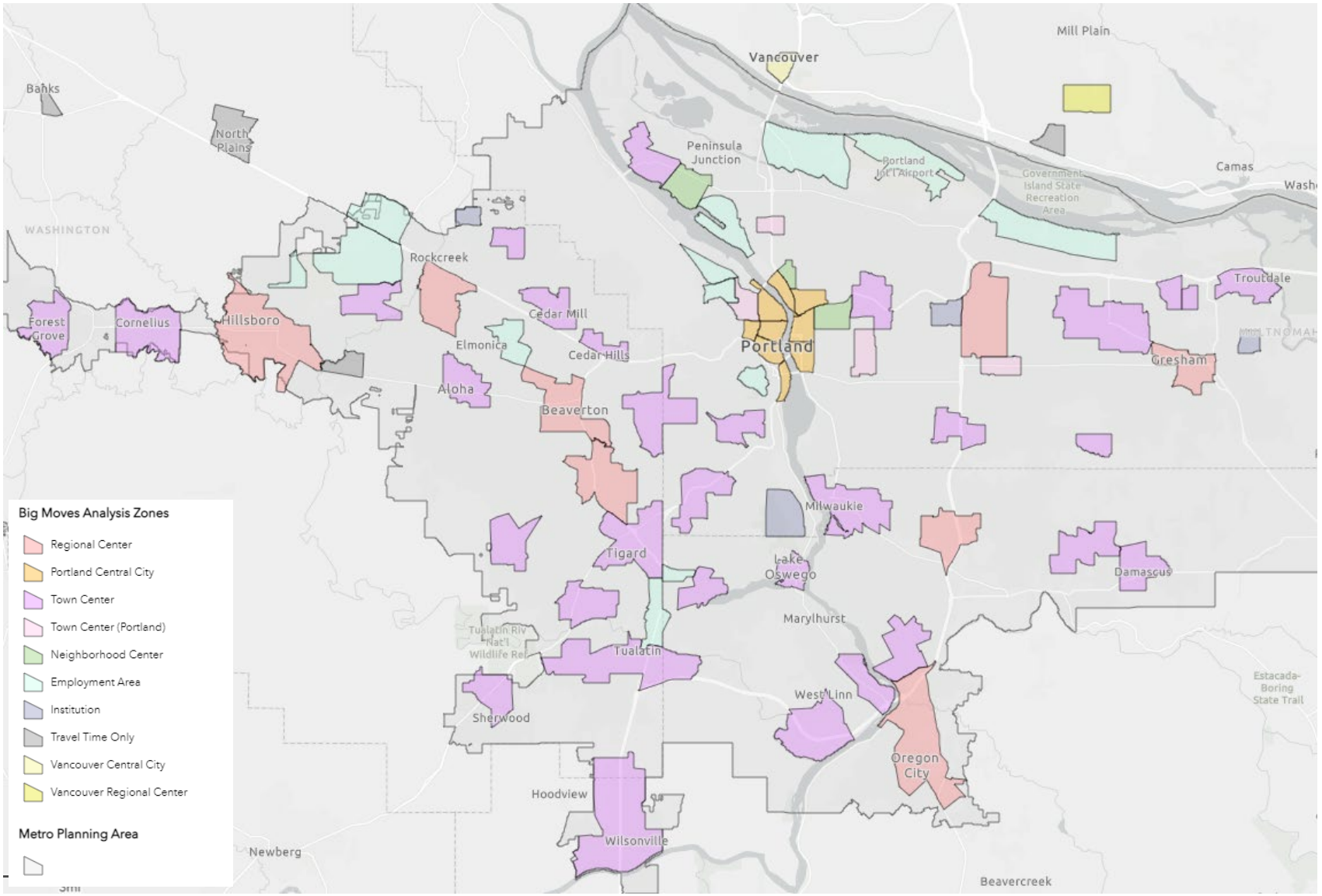
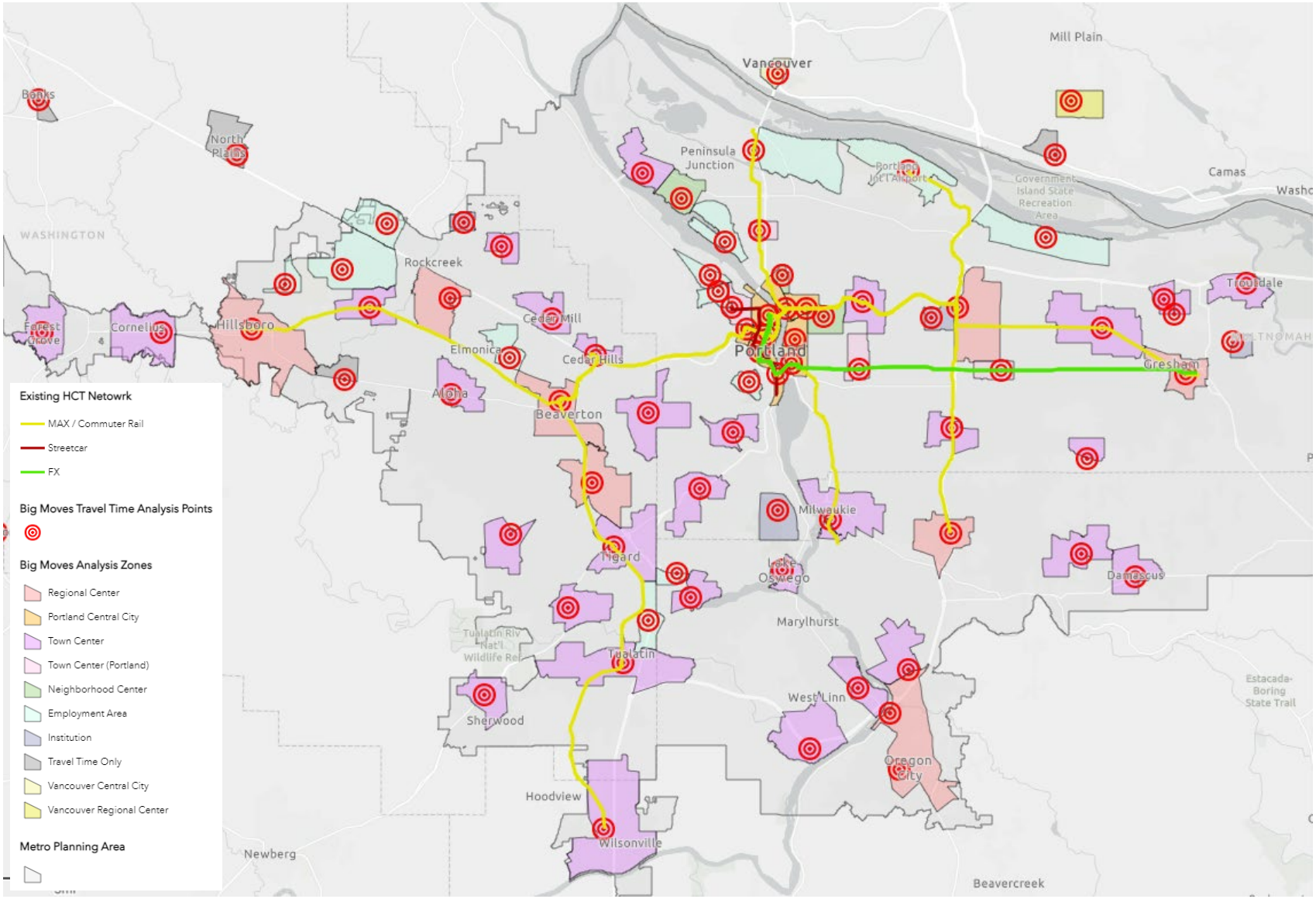


Figure 2 Map of Analysis Zones, Travel Time Analysis Points, and Existing HCT Network



3 ANALYSIS RESULTS

3.1 Analysis Results

The analysis was utilized as a tool to further explore and understand possible additional connections identified through the Level 1 Screening analysis and identify additional connections to consider in the next phases of the evaluation (e.g., Level 2 and Readiness Evaluation). **Figure 3** illustrates travel demand and the transit to auto travel time ratios for a representative set of connections between regional and town centers, including the additional employment and major activity centers included in the analysis. Line color illustrates the travel time ratio. Line weight illustrates travel demand. Travel demand in this schematic representation reflects only the demand between the specific centers connected, not the total travel demand between multiple centers that might utilize a particular connection (aggregating that demand was beyond the scope of this analysis). This analysis also did not consider demand outside of these centers.

- Connections shown in dark or lighter blue have a transit travel time that is competitive with driving. These include many parts of the existing light rail network, such as:
  - Between Gresham, Gateway, Hollywood, and Lloyd District
  - Between Clackamas and Gateway
  - Between Downtown Portland, Beaverton, and Hillsboro

  They also include some centers connected by bus links today.
- Connections shown in yellow, orange, and red range from moderately less competitive by transit to significantly longer.

The regional high capacity transit system is intended to be the backbone of the transit system. As such, this analysis focuses on longer-distance connections between regional centers, major town centers, and central cities with the highest travel demand and person capacity needs, that have gaps in service quality identified through this analysis. Focusing on these types of connections, this analysis identified the potential to improve transit travel times for corridors such as the following:

- Between multiple town and regional centers in a generally southeast to northwest arc through the Hwy 217 corridor between south and north/northwest Washington County, including connections from southwest Clackamas County. Since WES commuter rail operates between Wilsonville, Tualatin, Tigard, and Beaverton, but only during AM and PM peak hours, there is a gap in HCT service quality.
- The Tualatin Valley (TV) Highway corridor, between Beaverton, Hillsboro, Cornelius, and Forest Grove. There is an active planning project in this corridor (TV Hwy BRT).
- The Beaverton-Hillsdale (BH) Highway corridor, between Beaverton, Raleigh Hills and Hillsdale
- The Hwy 99W corridor, including Tigard, Tualatin, and Southwest Portland
- In South Clackamas County, between Oregon City and Clackamas Town Center (CTC) as well as along the Hwy 99E and Hwy 43 corridors, and between CTC and both Milwaukie and Happy Valley
- Town centers in East Multnomah County, including Troutdale, Fairview, and Wood Village, both east-west and north-south
- Across the Columbia River to/from Clark County

- Between St. Johns and various parts of Multnomah County

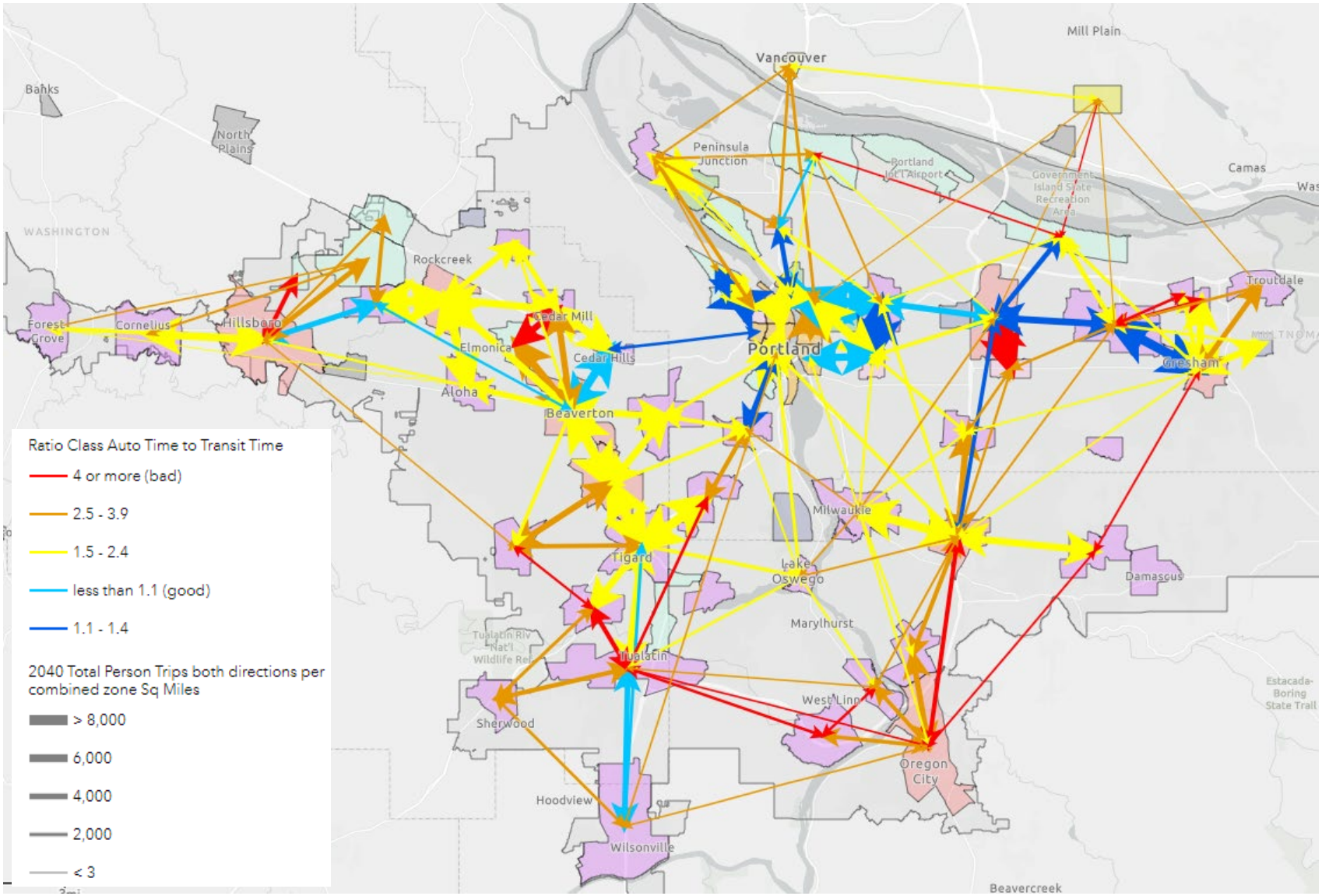
Figure 4 summarizes the connections identified above, along with existing HCT in these corridors, existing HCT priorities that were identified (in the 2009 HCT Plan/RTP or 2018 RTP), and active HCT planning efforts.

The analysis also highlights additional connections that are shorter in length or affect smaller or more isolated town centers. Examples of these types of gaps include:

- Employment areas north of Hillsboro, including along Evergreen Pkwy and Cornelius Pass Road.
- Town Centers in Washington County that are not along major travel corridors, such as Bethany, Murray/Scholls, and Sherwood.
- Columbia Corridor Employment Area in Multnomah County
- Between Midway and Gateway

However, these connections may be better addressed through other transit investments, such as frequent service fixed route, Better Bus enhancements, or enhanced connections to existing HCT service, and/or first and last mile improvements. These connections are likely outside the primary focus of the HCT system in connecting regional and major town centers and creating the backbone of the transit network.

Figure 3 Illustration of Travel Demand and Travel Time Ratio for Regional Zone-to-Zone Connections



3.2 Summary of Potential System Gaps and Previous/Active HCT Planning

Figure 4 Summary of Identified Major HCT Service Quality Gaps and Previous/Active HCT Planning

Major Travel Corridor / Connections	Counties	Existing HCT	Previously Identified HCT Priorities	Active HCT Planning
OR 217 Corridor (SW Clackamas Cty and SE Washington County – N/NW Washington County)	Washington, Clackamas	WES Commuter Rail (Peak Hours Only)	• Upgrades to WES, Wilsonville-Beaverton • Clackamas Town Center to Washington Square • Oregon City to Washington Square	-
TV Hwy Corridor	Washington	-	• TV Hwy BRT	TV Hwy BRT Study
US 26 Corridor (Sunset TC – Hillsboro)	Washington	-	• US 26 Corridor, Sunset TC – Hillsboro	-
BH Hwy Corridor	Washington, Multnomah	-	• 2010 Mobility Corridors Atlas	-
Hwy 99W / I-5 Corridor	Washington, Clackamas, Multnomah		• Southwest Corridor LRT • Sherwood – King City – Tigard	Southwest Corridor LRT Project
Hwy 43 Corridor	Clackamas, Multnomah		• Lake Owego – Portland (Rapid Streetcar)	-
Hwy 99E Corridor	Clackamas	MAX Orange Line (north of Park Ave)	• Milwaukie – Oregon City (Extension)	-
I-205 Corridor	Clackamas		• CTC – Oregon City – Washington Square	-
Hwy 224/Sunnyside Road Corridor	Clackamas	-	• CTC- Milwaukie – Washington Square • CTC – Happy Valley	-
East Multnomah County (Troutdale / Fairview / Wood Village)	Multnomah	MAX Blue Line (south of identified communities)	• LRT Extension, Gresham – Troutdale	-
St. Johns	Multnomah	-	• 2010 Mobility Corridors Atlas	-
I-5 (Interstate Bridge)	Multnomah, Clark	-	• Interstate Bridge	Interstate Bridge Replacement Project
I-205 Corridor	Multnomah, Clark	-	• 2010 Mobility Corridors Atlas	-

3.3 Portland Central City Analysis Results

Although the focus of this analysis is trips around the region, regional transit trips are affected by service quality through downtown Portland. Figure 5 illustrates travel demand and the transit to auto travel time ratios for a representative set of connections within the Portland Central City. Although the transit is relatively time competitive for some trips, HCT system speed into and through the Central City is slow, which affects travel time competitiveness both for transit trips into downtown and for transit trips that cross the region through downtown Portland. Figure 6 summarizes these connections along with existing HCT lines, existing HCT priorities that have been identified (in the 2009 HCT Plan/RTP or 2018 RTP), and active HCT planning efforts.

Figure 5 Illustration of Travel Demand and Travel Time Ratio for Portland Central City

Figure 6 Summary of Identified Major HCT Service Quality Gaps and Previous/Active HCT Planning – Portland Central City

Major Travel Corridor / Connections	Counties	Existing HCT	Previously Identified HCT Priorities	Active HCT Planning
MAX into downtown and through Portland Central City	Multnomah	MAX	• Central City Tunnel Study	
Central Eastside (north-south and between Downtown)	Multnomah	Streetcar	• 2010 Mobility Corridors Atlas	-
Northwest Portland and parts of Downtown	Multnomah	Streetcar	• 2010 Mobility Corridors Atlas	-

3.4 Next Steps

This analysis provides additional information about the potential HCT connections identified in the Level 1 HCT Screening and helps identify additional gaps in regional transit connections and/or service quality (travel time). This analysis was used to shape the set of HCT corridors that will be considered in the Readiness step of the HCT Evaluation.

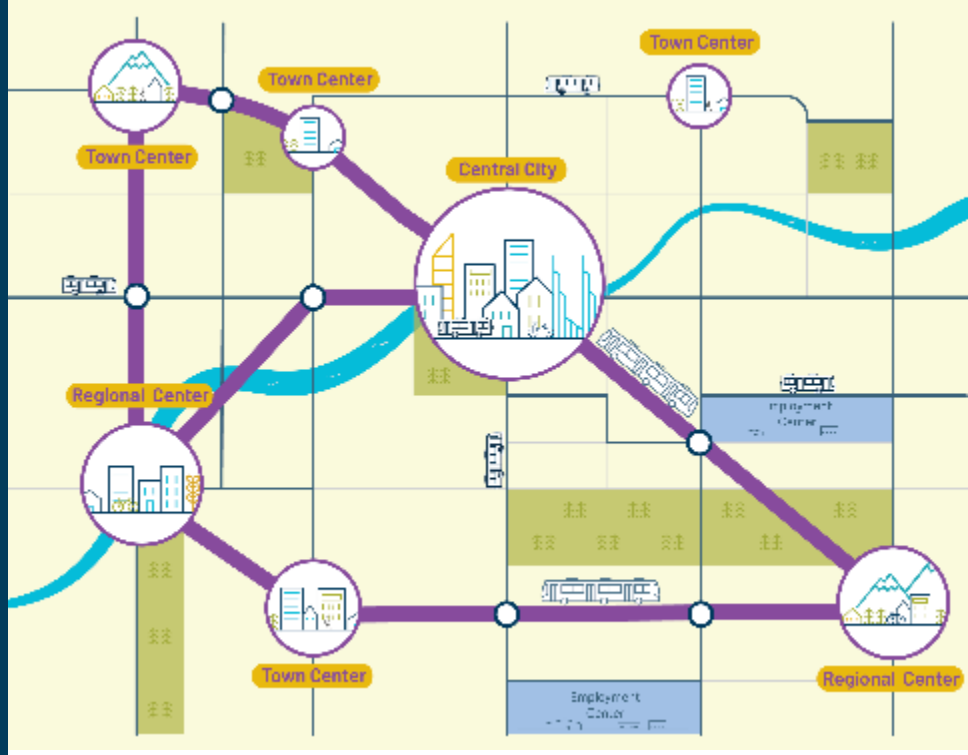
Materials following this page were distributed at the meeting.

Metro

HCT Strategy Update: Vision & Corridor Readiness Tiers

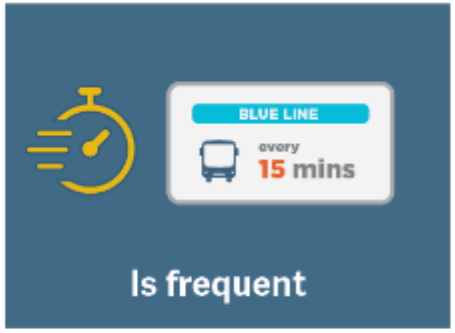
Metro

Establishing the Policy Framework

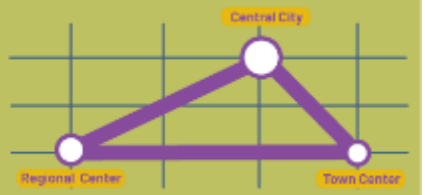


***Regional Transit Network Policy 4**: Complete and strengthen a well-connected high capacity transit network to serve as the backbone of the transportation system... High capacity transit prioritizes transit speed and reliability to connect regional centers with the Central City, link regional centers with each other, and link regional centers to major town centers.*

High Capacity Transit...



Is frequent



Is direct

Provides a comforatble waiting environment

Serves places with a mix of and many destinations

Runs for most of the day

Is fast and reliable

Moves lots of people

Has its own track or bus lane

Evolving the definition of “high capacity”…

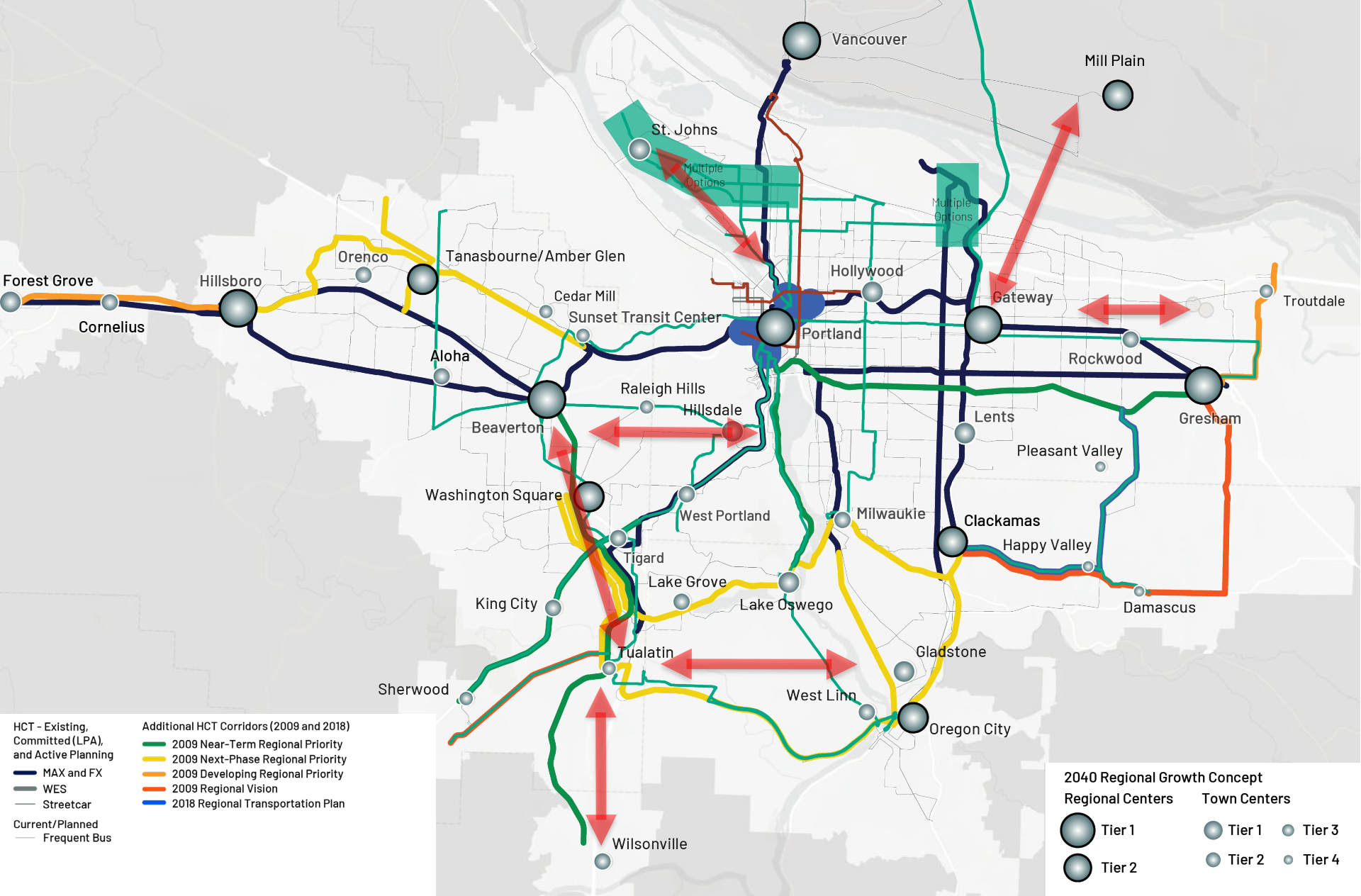
Revised policy language

Policy	Language
High Capacity Transit	• Better reflect the role of high capacity transit as the backbone of the transportation • Incorporate network design spacing best practices • Clarify high capacity transit's role in speed and reliability
Equity	• Better reflect quality of life and environmental justice
Climate	• Incorporate language related to mode shift goals • Clarify what is meant by "clean fleet"
Coverage & Frequency	• Creating flexibility in coverage and frequency by looking to first expand frequent service to other 2040 growth areas

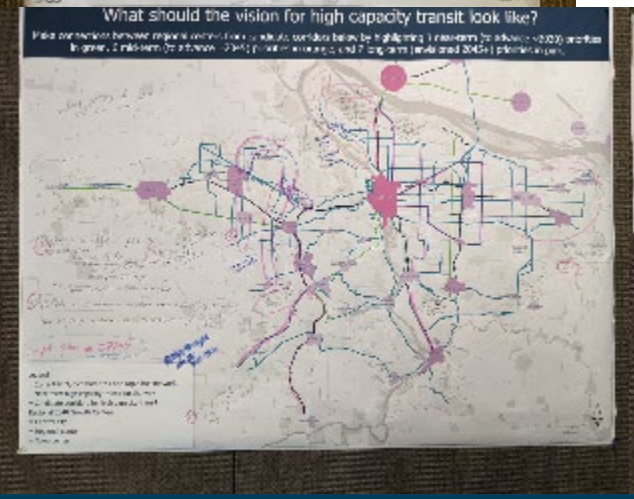
Expanded HCT Mode Spectrum

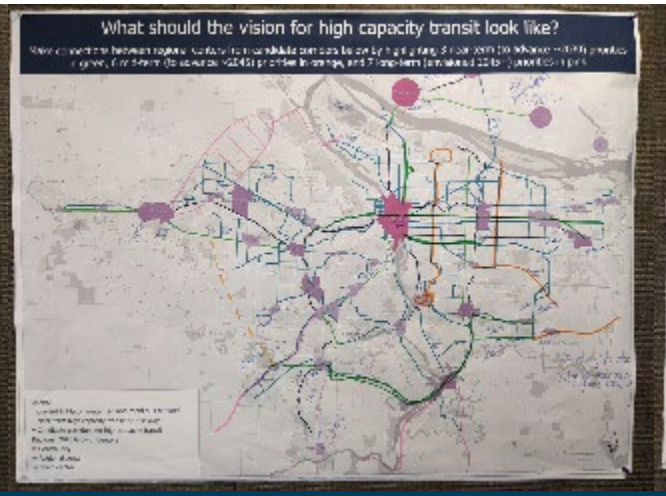
Mode	Aerial Tram	Intercity Rail	Commuter Rail HCT	Light Rail HCT	BRT HCT	Rapid Bus (Corridor-Based BRT) HCT	Rapid Streetcar HCT	Streetcar HCT [4]	Frequent Bus	Regional Bus	Vanpool, Microtransit, etc.
Level of Transit Prioritization	Full Priority Fully dedicated space where transit vehicles run/operate that is not shared with general traffic.	Full Priority	Full Priority	Full Priority	High Priority (>50% Exclusive Guideway)	High to Moderate Priority	Full to Majority Priority	Moderate to Low Priority	Moderate to Low Priority (Spot Treatments)	Limited to No Priority	
Frequency	Most Frequent < 10 mins	Varies	Frequent (Peak Hours) 15-30 mins	Most Frequent ~ 10 mins	Very Frequent ≤15 mins	Very Frequent ≤15 mins	Very Frequent ≤15 mins	Frequent 15 mins	Frequent 15 mins	Less Frequent (Varies)	Less Frequent (Varies)
Market Demand/Activity Density [1]	Serves major activity centers	35+ Connections between cities and regions	25+ Serves medium or higher volume corridors with commute-oriented demand	50+ Serves high volume corridors	25+ Serves medium-high volume corridors	25+ Serves medium-high volume corridors	25+ Serves medium-high volume corridors	25+ Serves dense urban areas	12.5 Serves medium volume corridors	Serves low to medium volume corridors	To be addressed in Metro Access to Transit Study (2024+)
Passenger Capacity [2]											
Transit Access Shed	1/2 Mile	> 1/2 Mile	1/2 Mile	1/2 Mile	1/2 Mile	1/2 Mile	1/2 Mile	1/3 Mile	1/4 Mile	1/4 Mile	
Stop/Station Amenities											
Capital Cost per Passenger [3]											
Operating Cost per Passenger [3]											

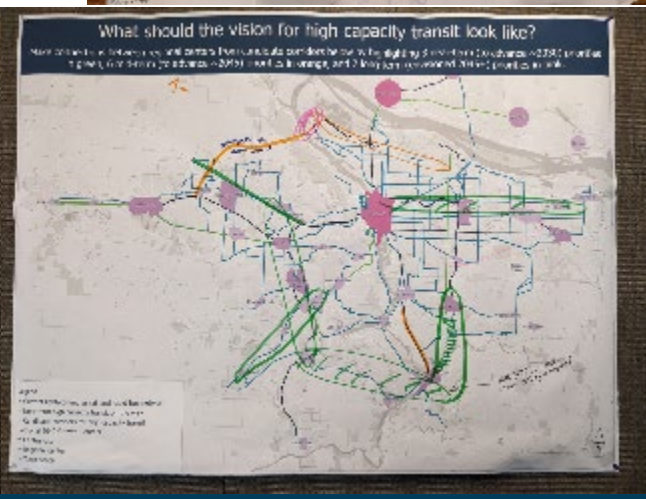
1. people per acre
2. based on vehicle capacity and frequency
3. per passenger capacity
4. depending on context



Expanding the Network Vision

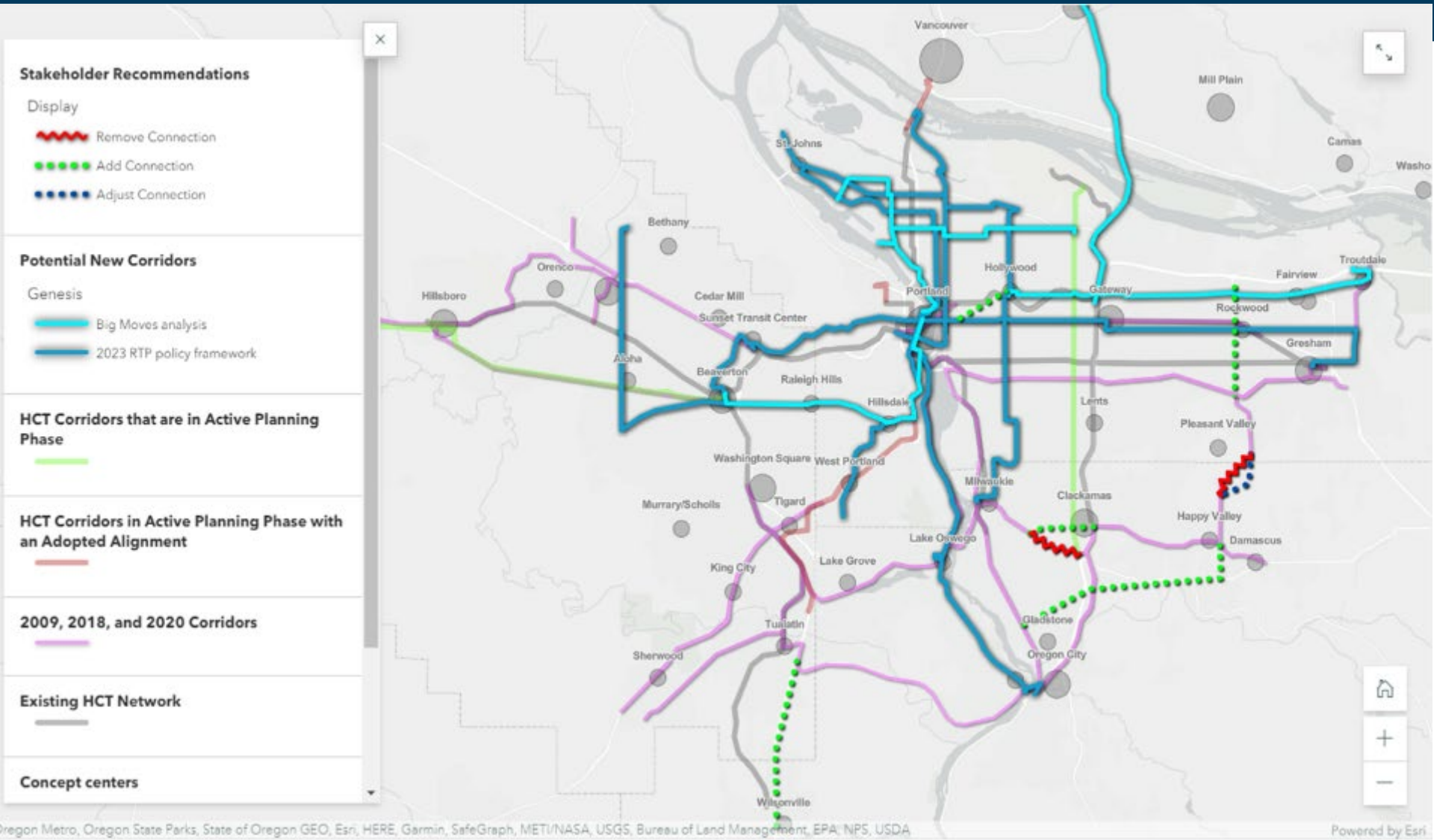






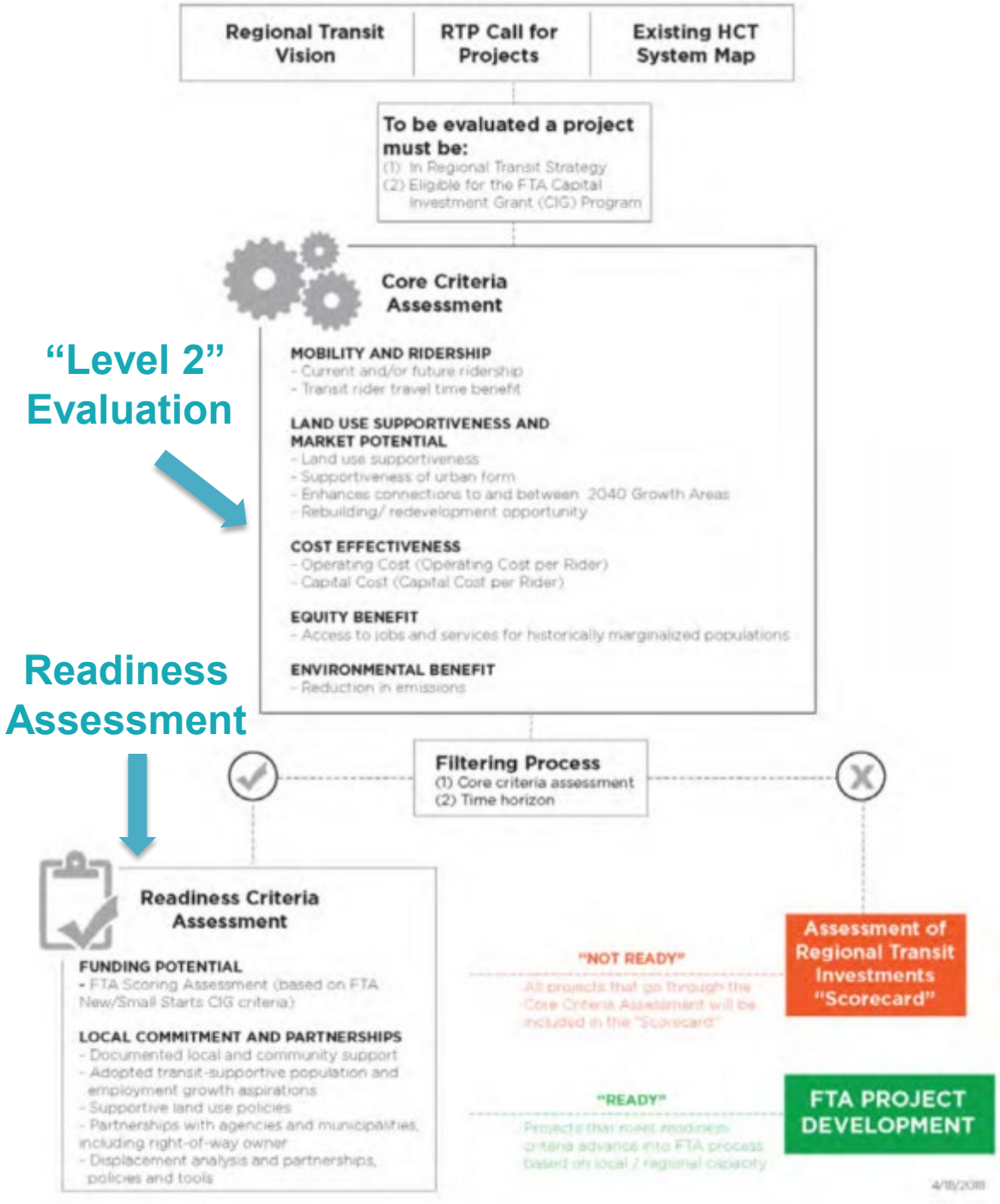
Fall Outreach and Working Group Refinement

Working together to make refinements…



Metro

Assessing Readiness & Tiering Corridors

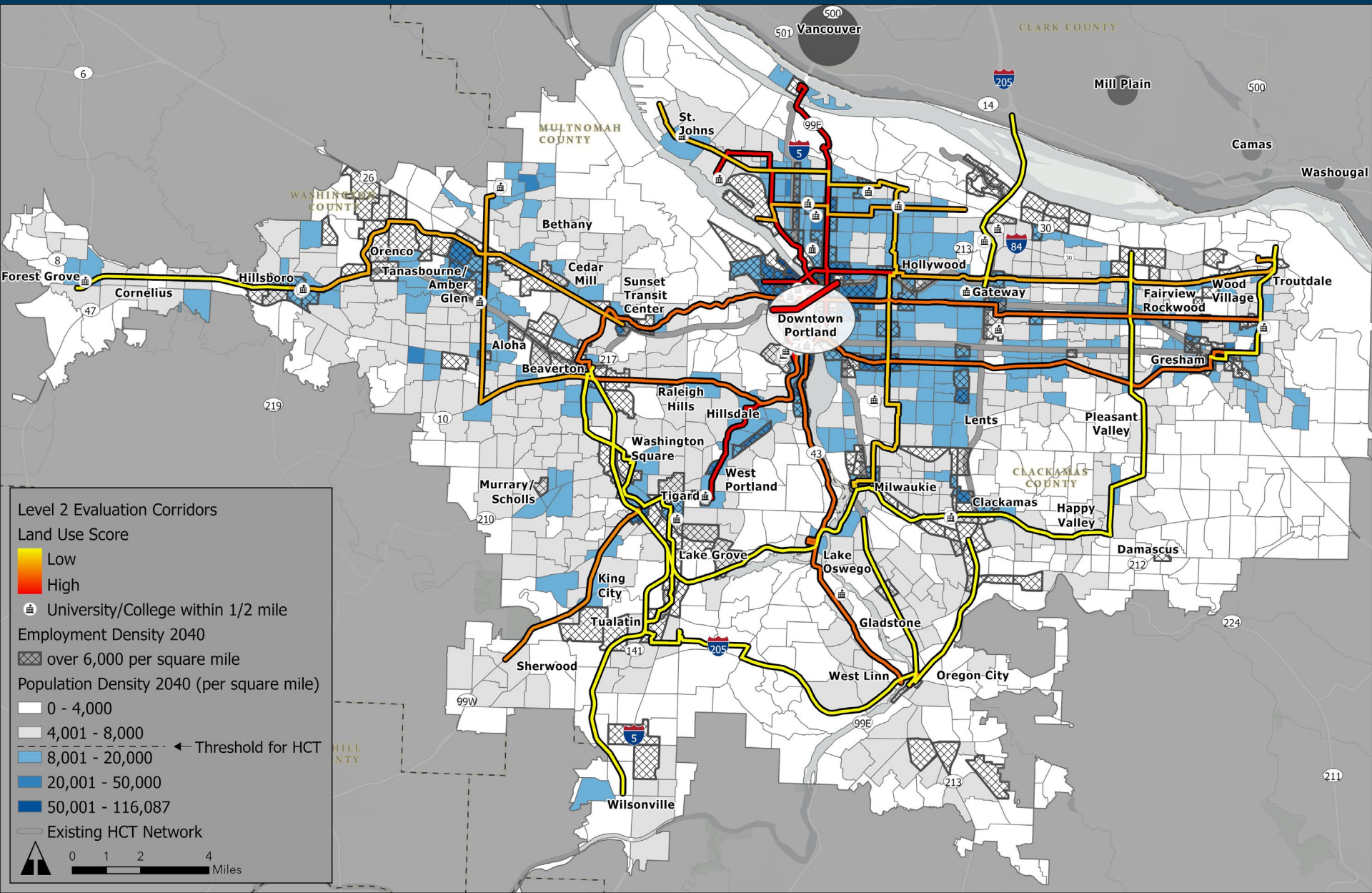


Thinking about initial screening…

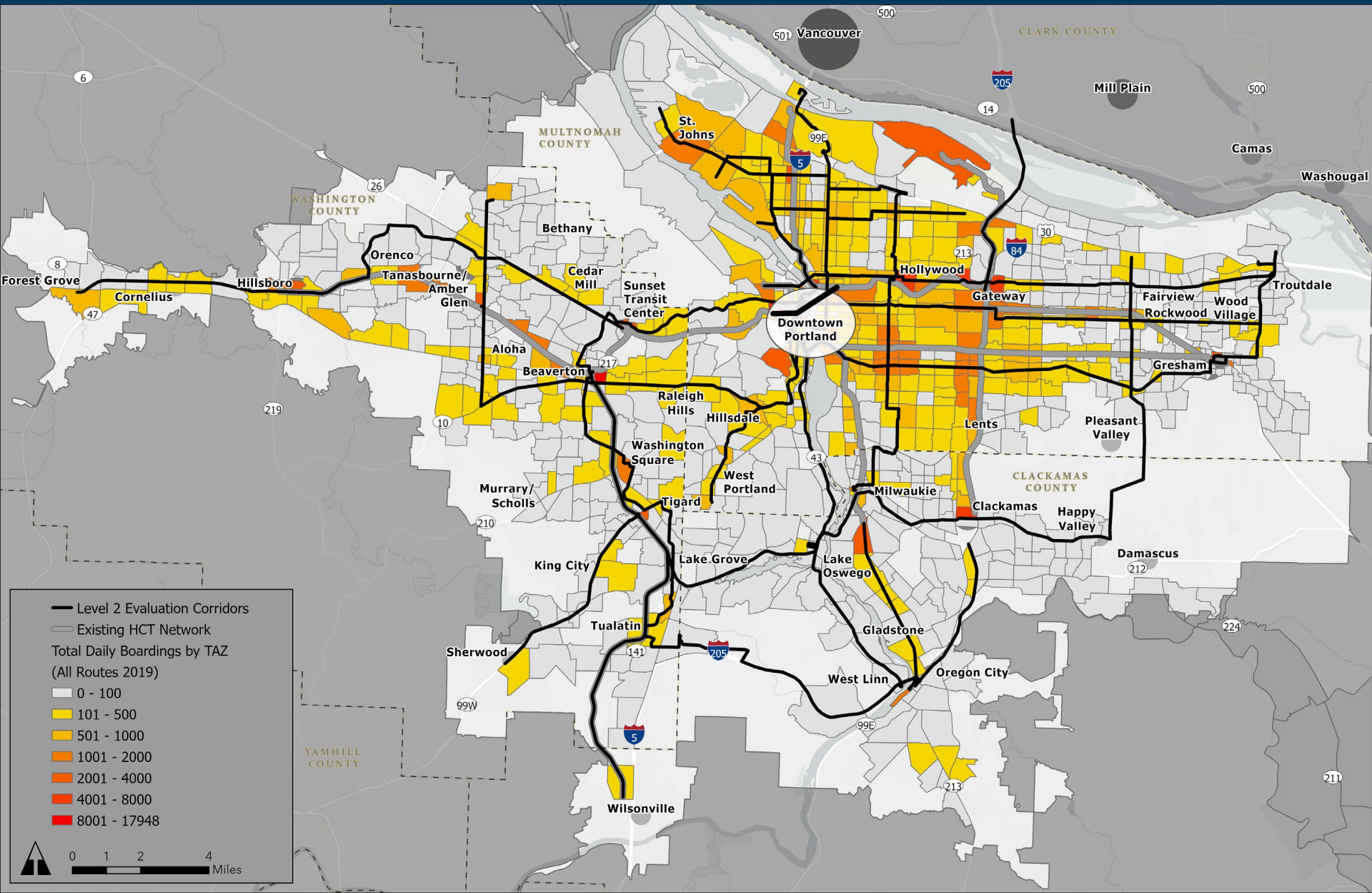
Level 2 Evaluation Criteria

Criteria	Measure	Notes
Land Use Supportiveness and Market Potential	• Population density • Employment density • Presence of higher education institutions • Number of affordable housing units, normalized	Key ridership factors Nexus with CIG criteria
Equity Benefit	• Key destinations within ½ mile of corridor, normalized • Share of historically marginalized populations within ½ mile of corridor	Nexus with CIG criteria
Mobility	• Transit travel time to car travel time ratio	Indication of need for transit priority
Productivity + Cost Effectiveness	• Existing TriMet boardings per revenue hour • Capital cost per rider estimates	Cost efficiency Nexus with CIG criteria
Environmental Benefit	• Change in GHG emissions associated with HCT investment in a given corridor	Nexus with CIG criteria

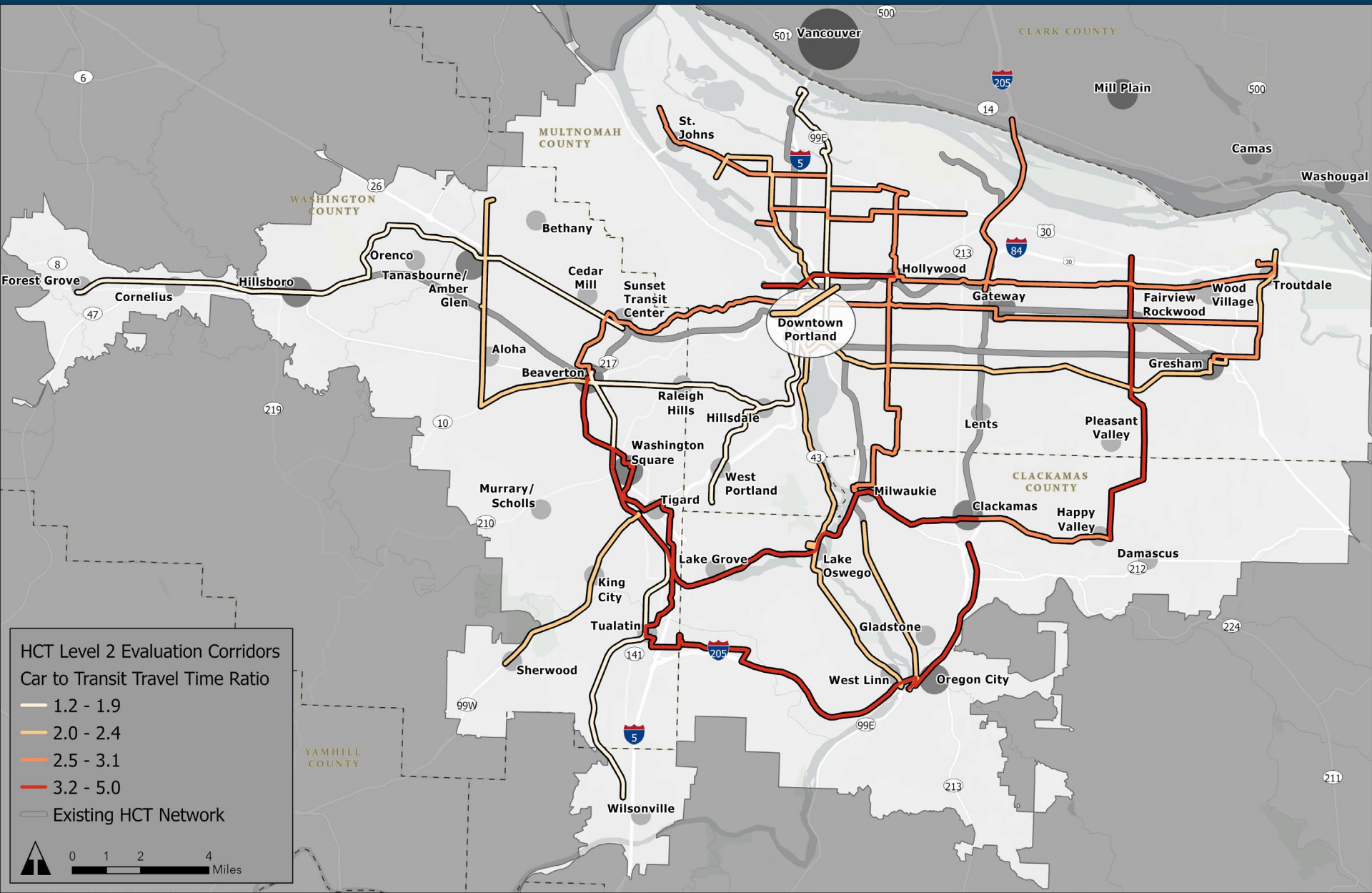
Land Use Supportiveness



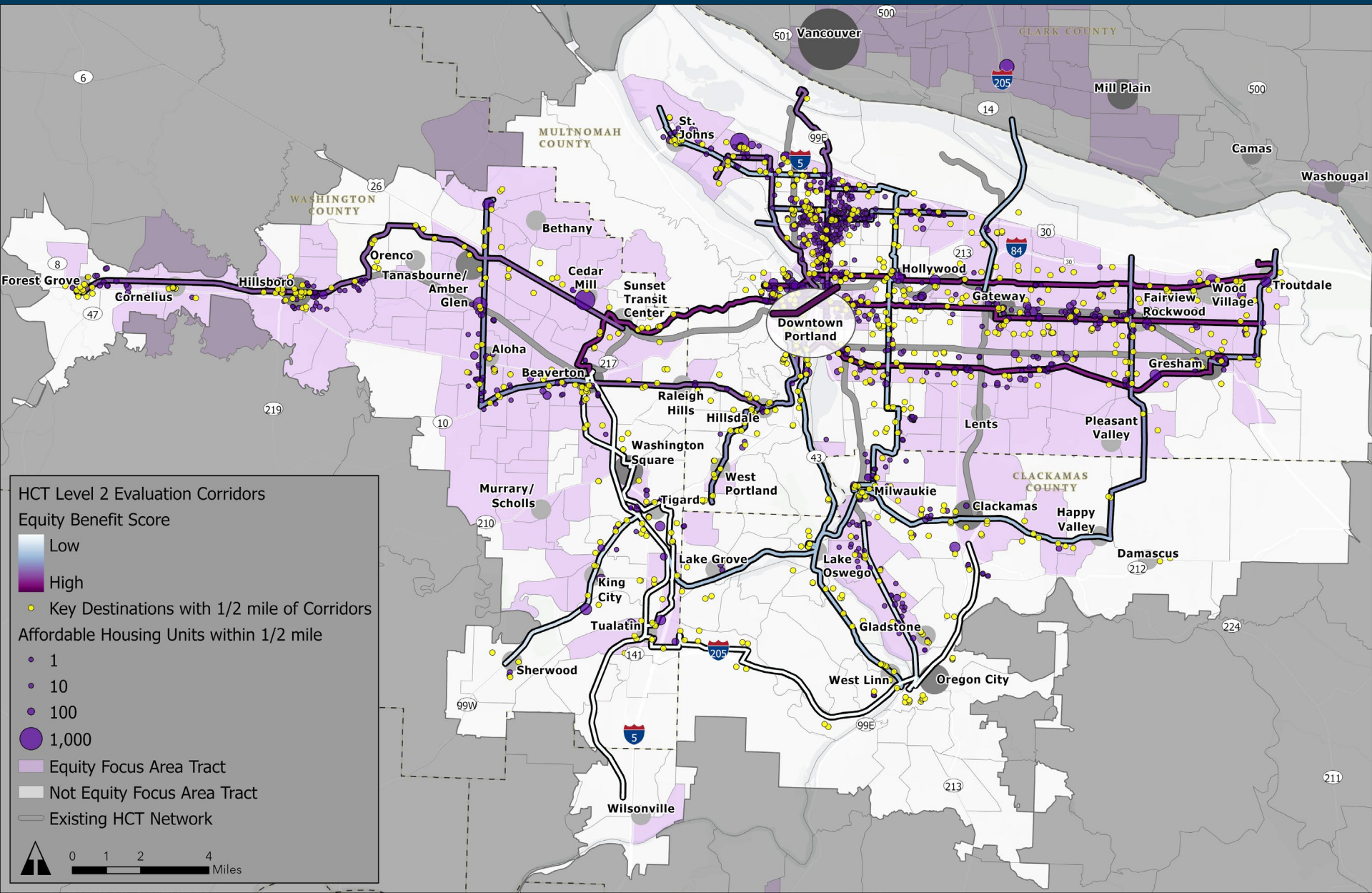
Current Ridership



Car to Transit Travel Time Ratio



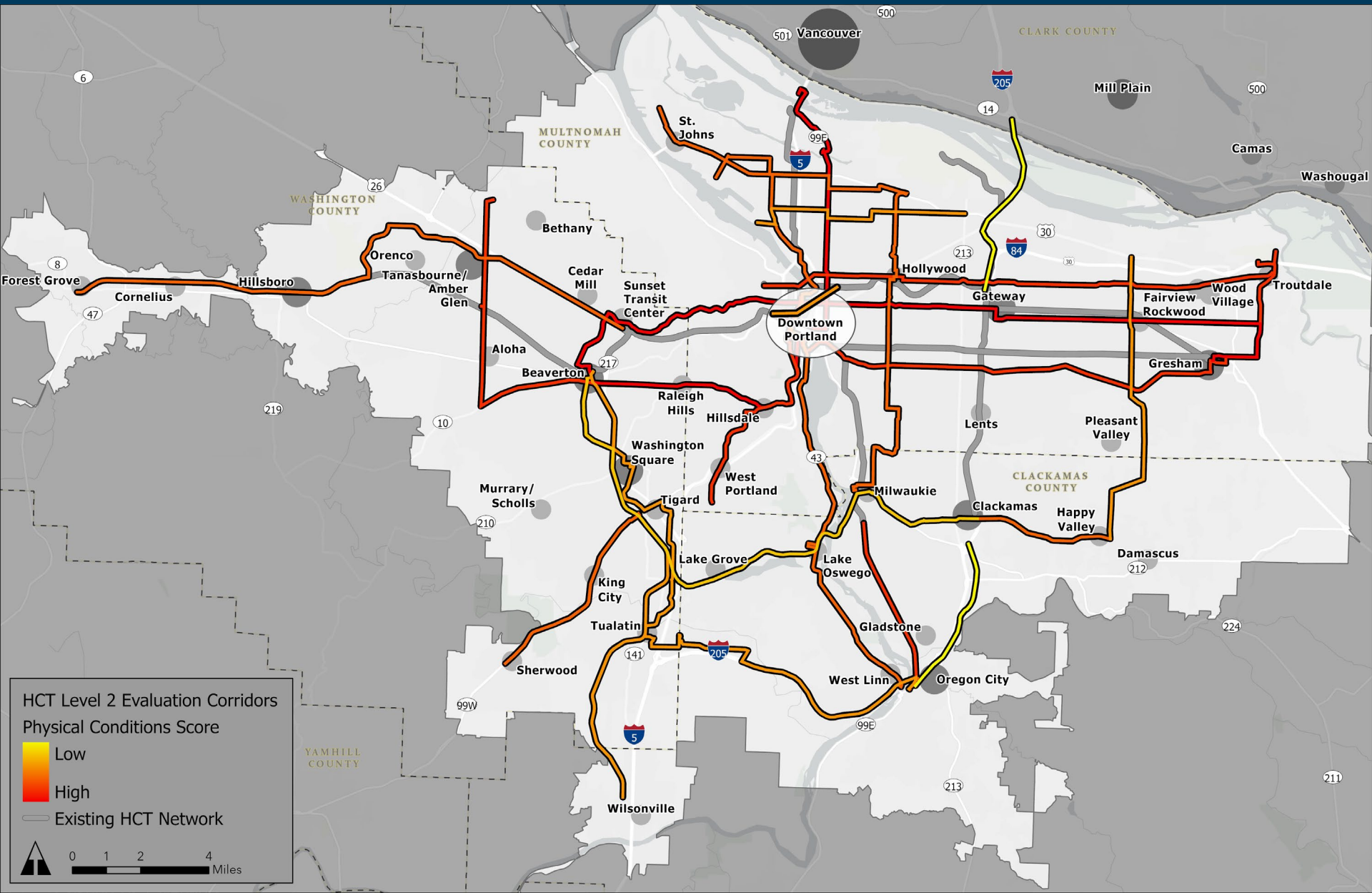
Equity Benefit and Key Destinations



Readiness Criteria

Criteria	Measure
Documented Support	• Corridors identified in local Transportation Plans • Transit-supportive land use policies identified in local Comprehensive Plans • Work complete to date
Existing Physical Conditions	• Percent of corridor with more than 3 lanes of road Miles of sidewalk within ½ mile of corridor, normalized • Miles of street with bike facility present within ½ mile of corridor, normalized
Implementation Complexity	• Corridor length • Percentage of corridor in freight corridor

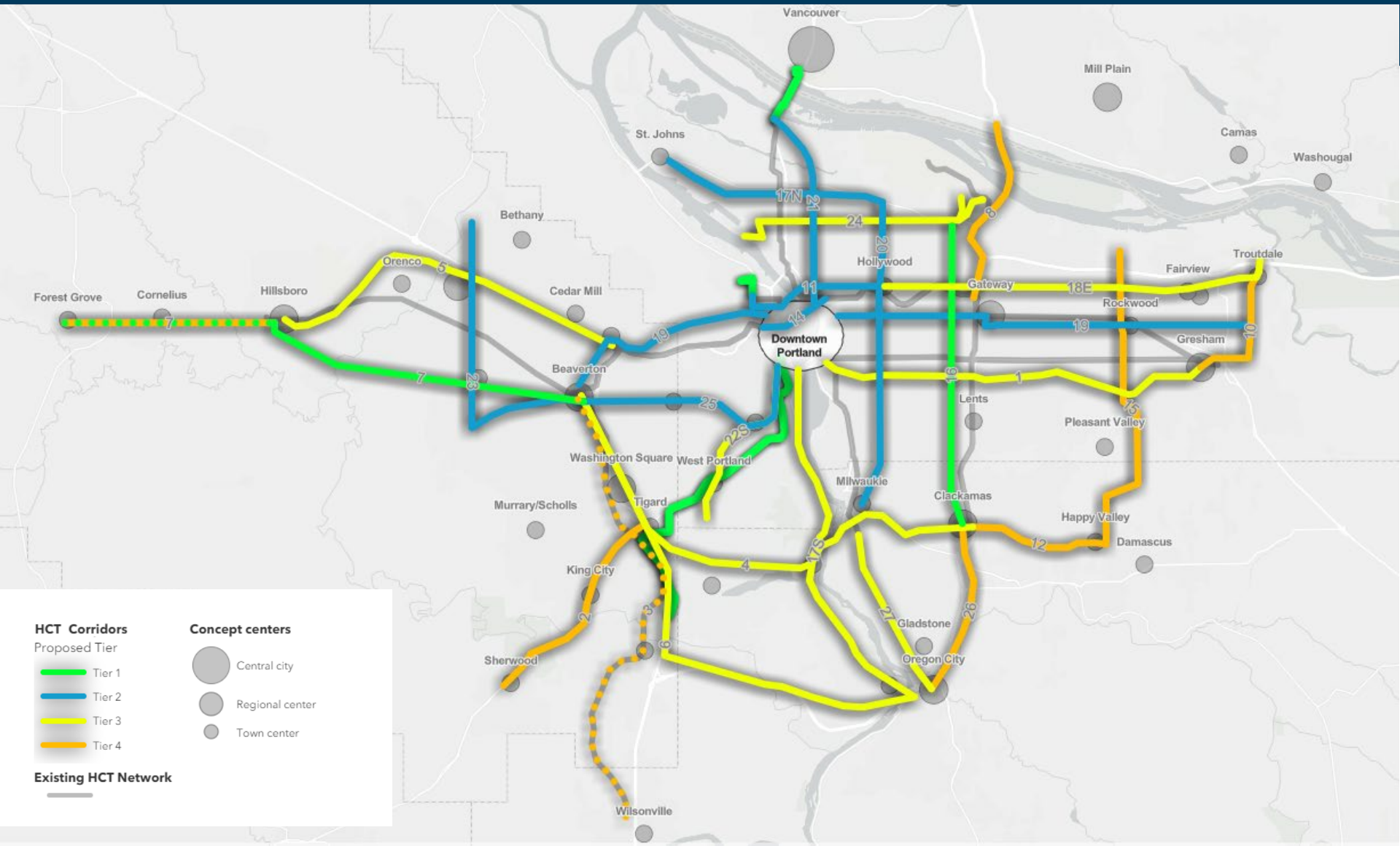
Physical Conditions



Tiering Approach & Structure

Tier		Description
1	**Regional Priority Corridors**	• Adopted LPA, or active work underway (e.g., 82nd Avenue) • Not evaluated in L2/Readiness, assumed to advance
2	**Emerging Regional Priority Corridors**	• Score well on L2 and Readiness criteria • Corridor ready to move forward • Additional actions could advance corridor in next five years
3	**Developing Corridors**	• Score moderately on L2 and Readiness criteria • May not yet have sufficient population density/land use policies in place, other needs • More time required before advancing these corridors
4	**Future Corridors**	• Score lower on L2 or Readiness criteria • Additional conditions needed to support HCT • May be candidates for other types of project investment

Corridor Tiers



Proposed Tiers

Potential Project and Representative Corridor	Evaluation Score	Readiness Score	Total Score	Tier	Geography
NW Lovejoy to Hollywood via Broadway/Weidler				2	Portland/Multnomah
Central City Tunnel				2	Portland/Regional
Beaverton - Portland - Gresham via Burnside				2	Washington/Portland/Multnomah
Hayden Island - Downtown Portland via MLK				2	Portland
Bethany to Beaverton via Farmington/SW 185th				2	Washington
Beaverton to Portland via Hwy 10 (BH Hwy)				2	Washington/Multnomah
St Johns - Downtown Portland via Vancouver/Williams, Rosa Parks				2	Portland
St. Johns - Milwaukie via Cesar Chavez				2	Portland
Portland to Gresham in the vicinity of Powell Corridor				3	Multnomah
PCC Sylvania to Downtown Portland via Capitol Hwy				3	Portland
Sunset Transit Center to Hillsboro via Hwy 26/ Evergreen				3	Washington
Swan Island to Parkrose				3	Portland
Oregon City to Downtown Portland via Hwy 43				3	Clackamas/Multnomah
Hollywood to Troutdale				3	Portland/Multnomah
Park Ave MAX Station to Oregon City via the McLoughlin Corridor				3	Clackamas
Beaverton - Tigard - Tualatin - Oregon City				3	Clackamas/Washington
Beaverton - Tigard - Lake Oswego - Milwaukie - Clackamas Town Cent				3	Clackamas/Washington
Hillsboro to Forest Grove				4	Washington
Gresham to Troutdale				4	Multnomah
Tigard to Sherwood via Hwy 99W Corridor				4	Washington
Beaverton to Wilsonville in the vicinity of WES				4	Washington
Happy Valley to Columbia Corridor via Pleasant Valley				4	Multnomah/Clackamas
Clackamas Town Center to Damascas				4	Clackamas
Clackamas Town Center to Oregon City				4	Clackamas
Gateway to Clark County in the vicinity of I-205 Corridor				4	Multnomah/Clark

Portland Corridors

Potential Project and Representative Corridor	Evaluation Score	Readiness Score	Total Score	Tier	Geography
Central City Tunnel	●	●	●	**2**	Portland/Regional
NW Lovejoy to Hollywood via Broadway/Weidler	●	●	●	**2**	Portland
Hayden Island - Downtown Portland via MLK	◕	●	●	**2**	Portland
St Johns - Downtown Portland via Vancouver/Williams, Rosa Parks	◕	◑	◕	**2**	Portland
St. Johns - Milwaukie via Cesar Chavez	◑	◑	◑	**2**	Portland
PCC Sylvania to Downtown Portland via Capitol Hwy	◕	◕	◕	**3**	Portland
Swan Island to Parkrose	◑	◑	◑	**3**	Portland

Multnomah Corridors

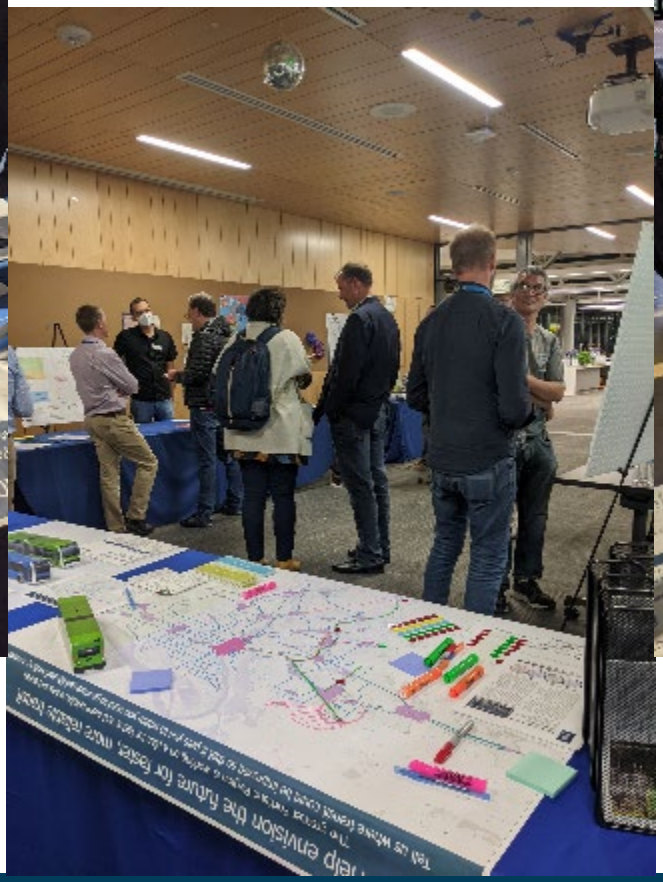
Potential Project and Representative Corridor	Evaluation Score	Readiness Score	Total Score	Tier	Geography
Central City Tunnel				2	Portland/Regional
Beaverton - Portland - Gresham via Burnside				2	Washington/Multnomah
Beaverton to Portland via Hwy 10 (BH Hwy)				2	Washington/Multnomah
Portland to Gresham (Powell Corridor)				3	Multnomah
Oregon City to Downtown Portland via Hwy 43				3	Clackamas/Multnomah
Hollywood to Troutdale				3	Portland/Multnomah
Gresham to Troutdale				4	Multnomah
Happy Valley to Columbia Corridor (Pleasant Valley)				4	Multnomah/Clackamas
Gateway to Clark County (I-205 Corridor)				4	Multnomah/Clark

Clackamas County Corridors

Potential Project and Representative Corridor	Evaluation Score	Readiness Score	Total Score	Tier	Geography
Central City Tunnel	●	●	●	**2**	Portland/Regional
Oregon City to Downtown Portland via Hwy 43	◑	◑	◑	**3**	Clackamas/Multnomah
Park Ave MAX Station to Oregon City via the McLoughlin Corridor	○	●	◔	**3**	Clackamas
Beaverton - Tigard - Tualatin - Oregon City	○	◑	◔	**3**	Clackamas/Washington
Beaverton - Tigard - LO- Milwaukie - CTC	◔	◑	◔	**3**	Clackamas/Washington
Happy Valley to Columbia Corridor (Pleasant Valley)	○	◑	◔	**4**	Multnomah/Clackamas
Clackamas Town Center to Damascas	○	◑	○	**4**	Clackamas
Clackamas Town Center to Oregon City	○	◔	○	**4**	Clackamas

Washington County Corridors

Potential Project and Representative Corridor	Evaluation Score	Readiness Score	Total Score	Tier	Geography
Central City Tunnel	●	●	●	**2**	Portland/Regional
Beaverton - Portland - Gresham via Burnside	●	●	●	**2**	Washington/Multnomah
Bethany to Beaverton via Farmington/SW 185th	◑	●	◕	**2**	Washington
Beaverton to Portland via Hwy 10 (BH Hwy)	◑	●	◕	**2**	Washington/Multnomah
Sunset Transit Center to Hillsboro (Hwy 26)	◔	◑	◑	**3**	Washington
Beaverton - Tigard - Tualatin - Oregon City	○	◑	◔	**3**	Clackamas/Washington
Beaverton - Tigard - LO - Milwaukie - CTC	◔	◑	◔	**3**	Clackamas/Washington
Hillsboro to Forest Grove	◔	◑	◑	**4**	Washington
Tigard to Sherwood via Hwy 99W Corridor	◑	◔	◔	**4**	Washington
Beaverton to Wilsonville in the vicinity of WES	○	◑	◔	**4**	Washington



Planning Winter Engagement

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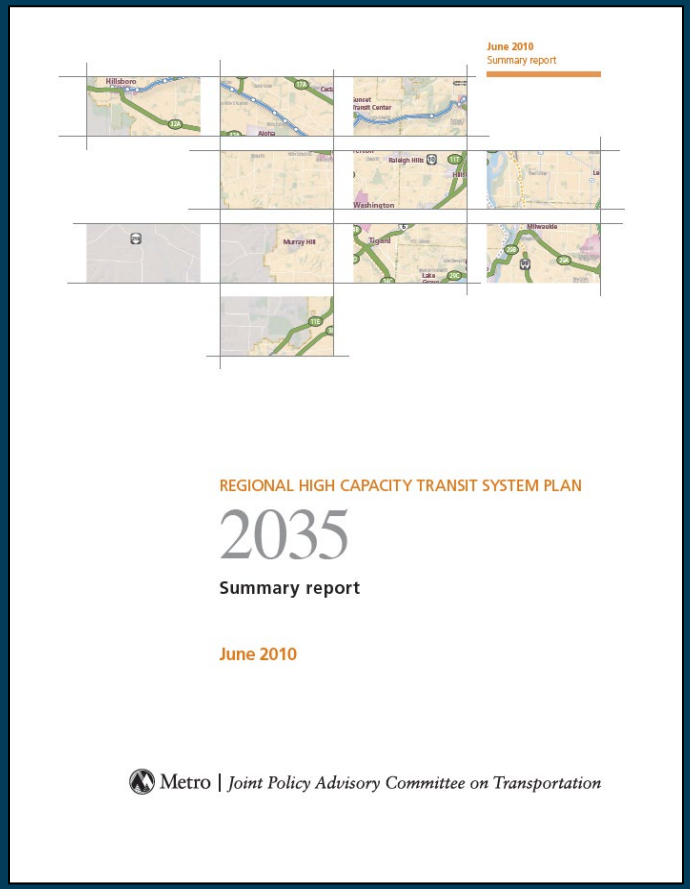

Outlining the Report

- Introduction
- HCT System Today
  - Status, Challenges & Opportunities
- Policy Framework
- Network Vision
- Corridor Investment Tiers
- Supporting the Vision
  - Urban Form; ROW & Street Design; System Integration, Features & Access; Cost & Funding; Plans & Partnerships
- Implementation
  - Strategies
  - Corridor Planning Needs
  - Future Study
- Appendices

Looking to Next Steps

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Thank you!!

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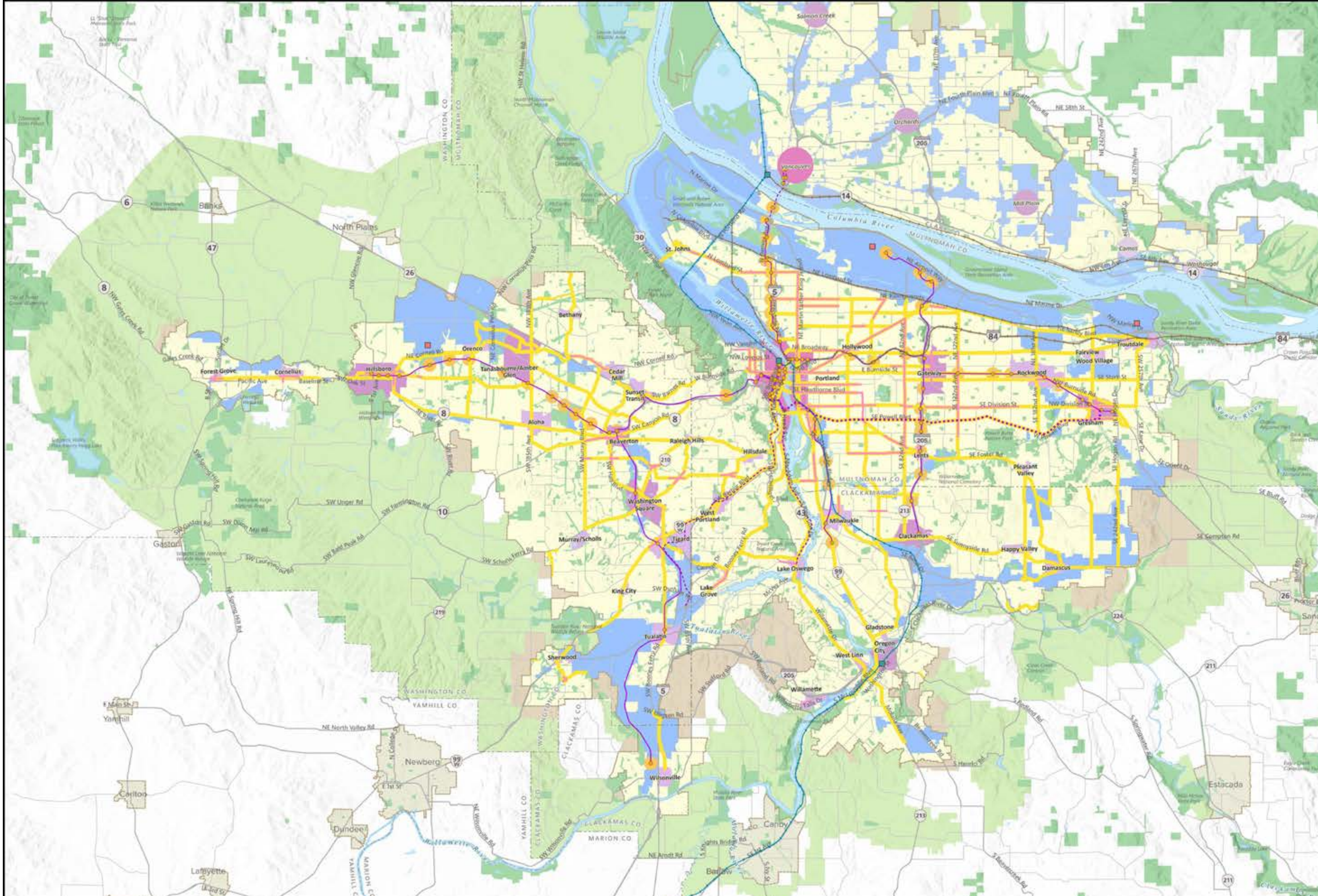
Context for the 2024 Urban Growth Management Decision

January 2023



2040 Growth Concept Map

December 2018

0 6 12 Miles

0 10 20 Kilometers

The information on this map was derived from digital databases on Metro's GIS. Care was taken in the creation of this map. Metro cannot accept any responsibility for errors, omissions, or positional accuracy. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose, accompanying this product. However, notification of any errors are appreciated.

The Metro 2040 Growth Concept defines the form of regional growth and development for the Portland metropolitan region. The Growth Concept was adopted in December 1995 through the Region 2040 planning and public involvement process. This concept is intended to provide long-term growth management of the region.

The map highlights elements of parallel planning efforts including: the 2018 Regional Transportation Plan that outlines investments in multiple modes of transportation, and a commitment to local policies and investments that will help the region better accommodate growth within its centers, corridors and employment areas.

- Central city
- Regional center
- Town center
- Station communities
- Main streets
- Corridors
- Employment land
- Parks and natural areas
- Neighborhood
- Rural reserve
- Urban reserve
- Urban growth boundaries
- Existing high capacity transit
- Planned high capacity transit
- Proposed high capacity transit tier 1
- Mainline freight
- High speed rail (proposed)
- County boundaries
- Neighboring cities
- Airports
- Intercity rail terminal

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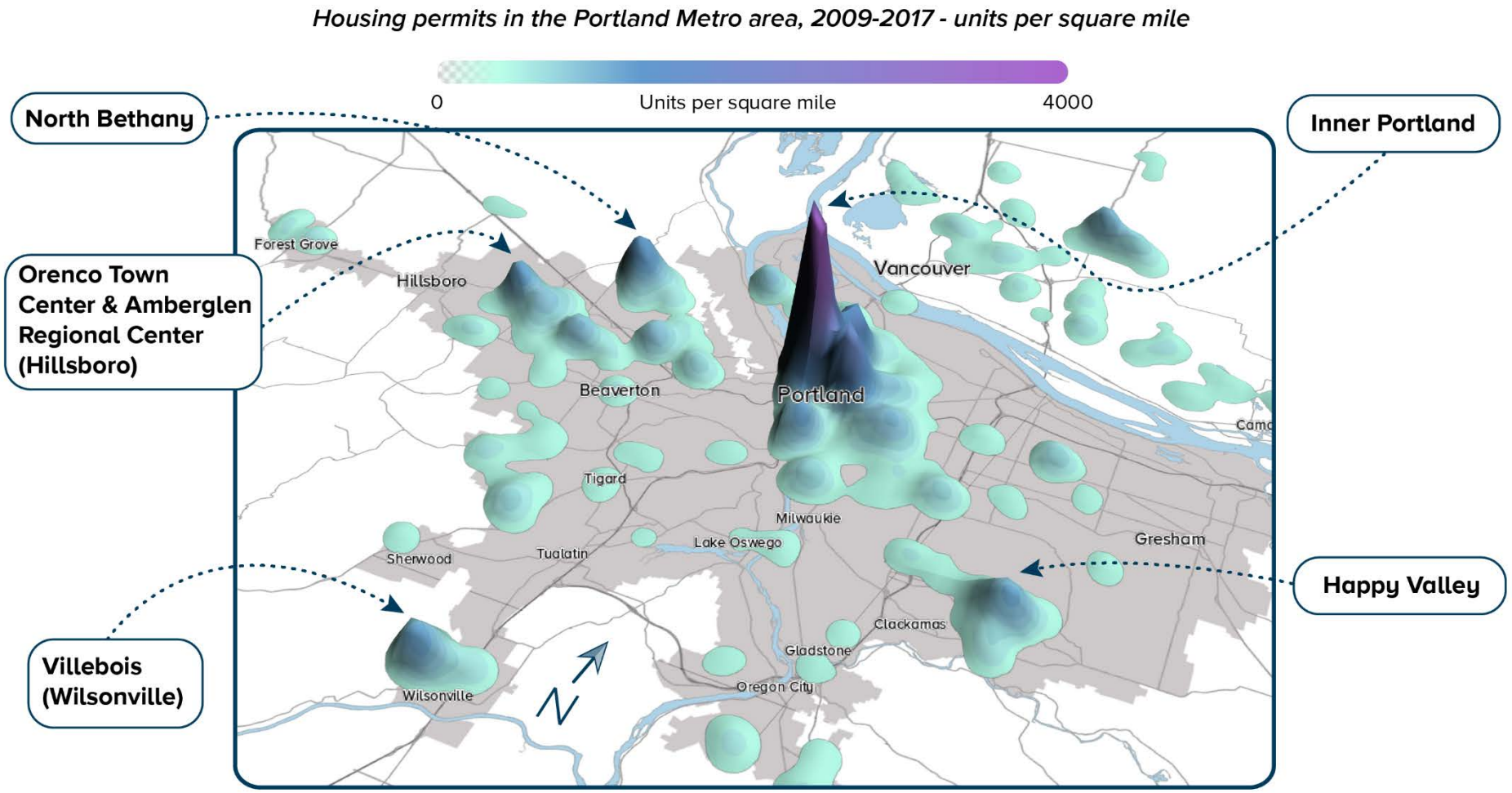
For more information on these initiatives, visit http://www.oregonmetro.gov/2040

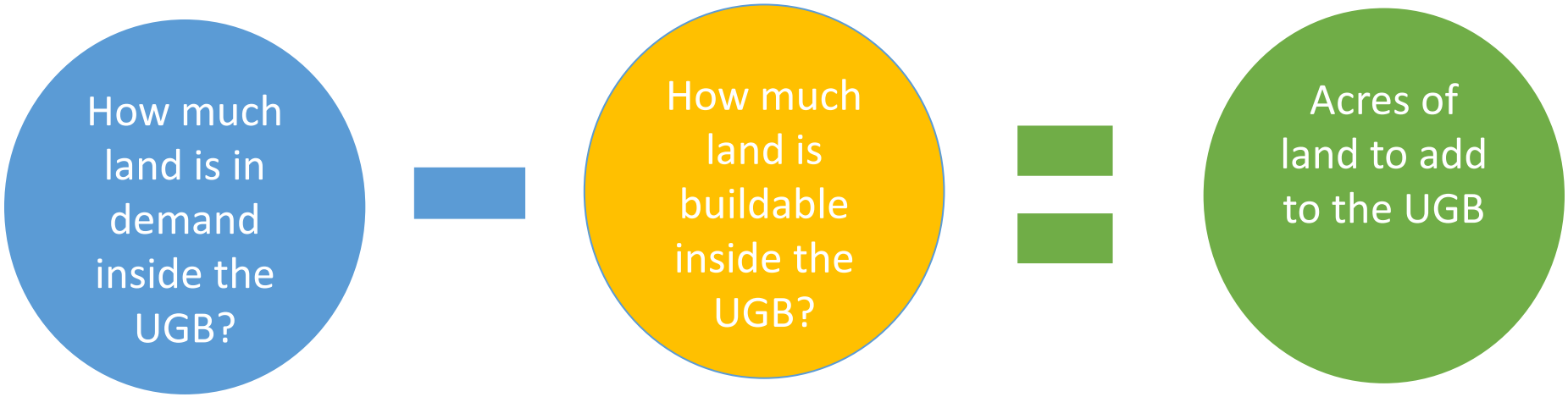
Growth is happening where intended

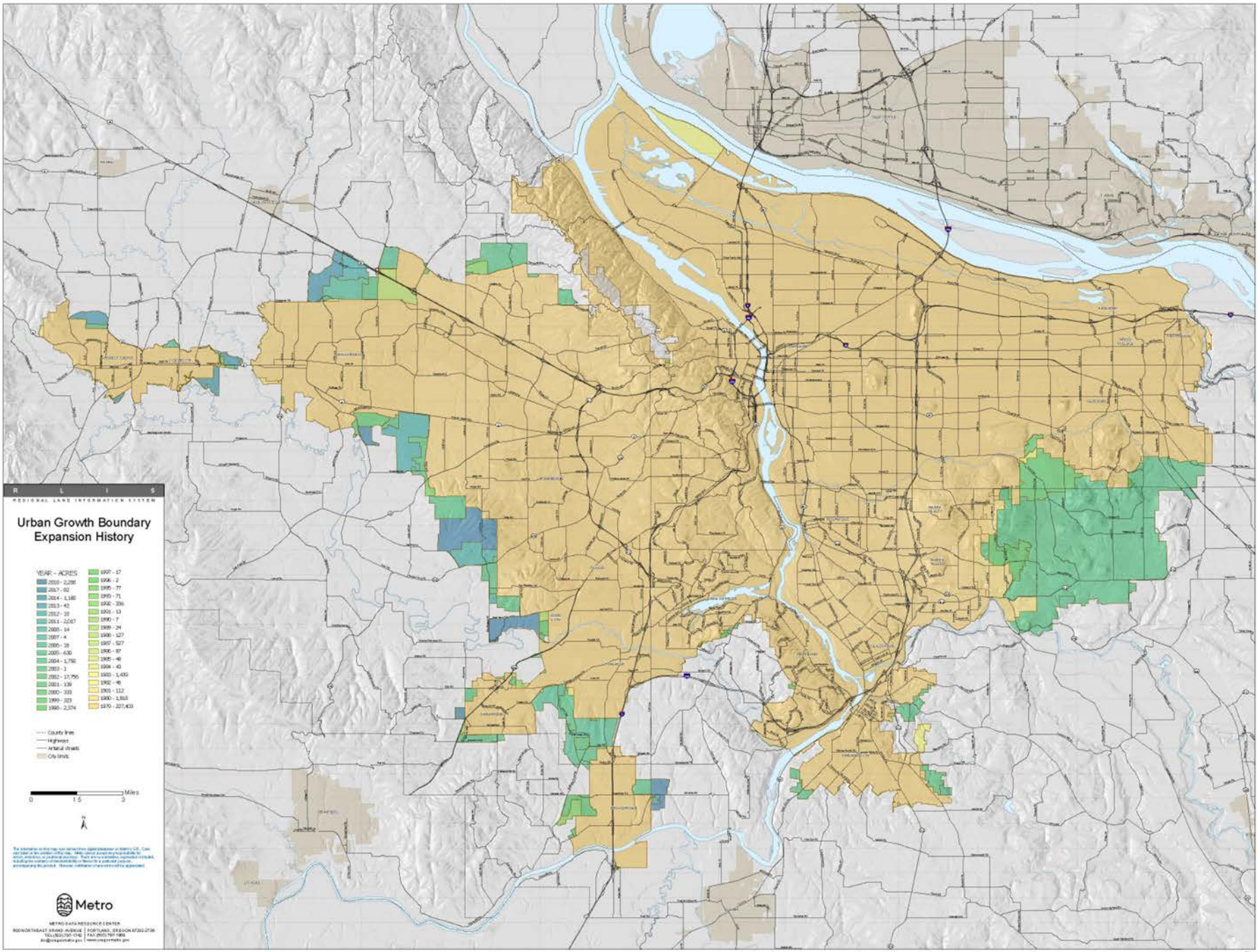


Source: Construction Monitor data report Q1 2009 - Q2 2017. Created October 2017

The basic premise of Oregon's growth management laws

Before expanding the UGB, determine whether more land is needed because of household and employment growth.

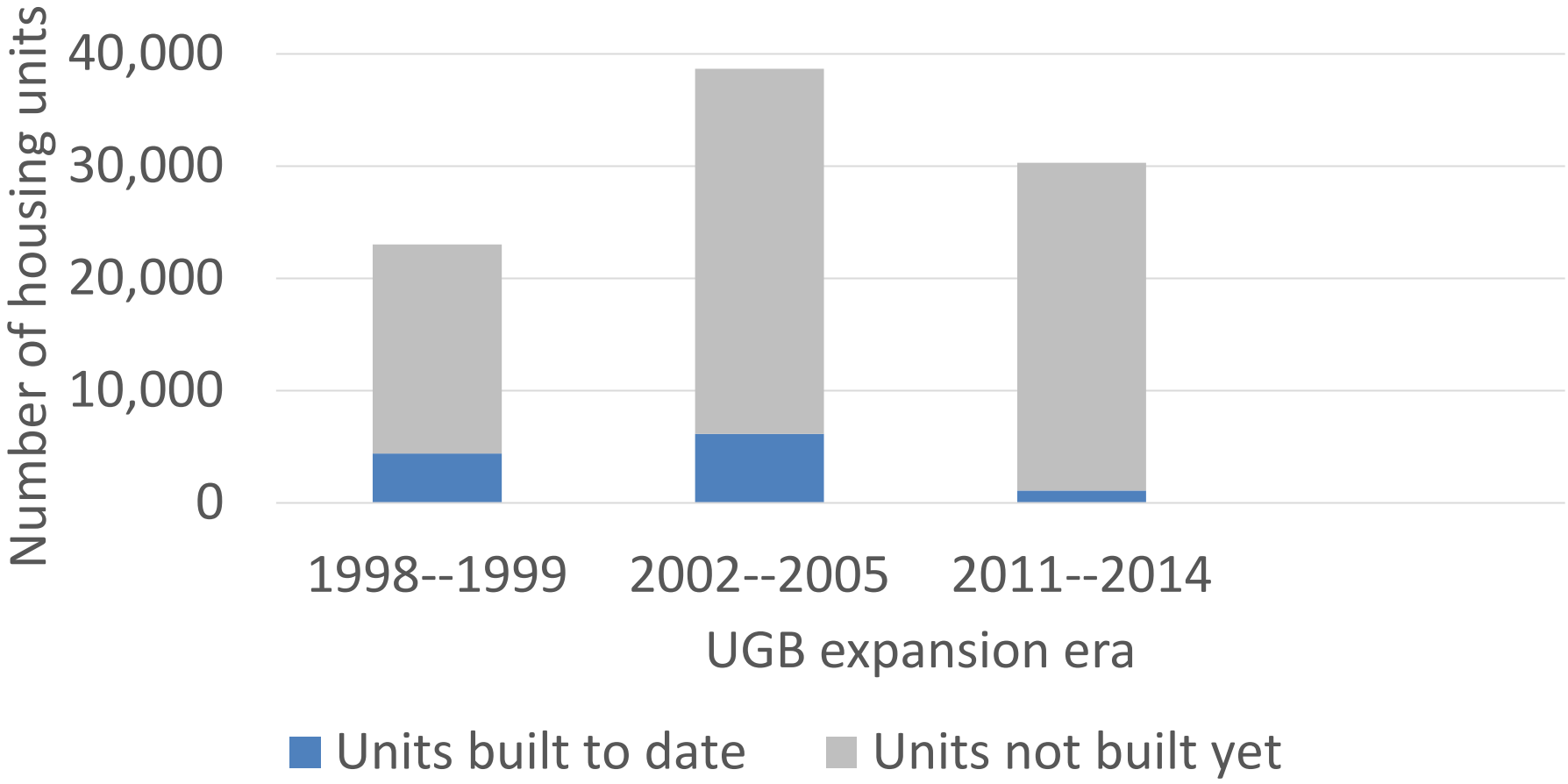



R L I S
REGIONAL LAND INFORMATION SYSTEM
Urban Growth Boundary
Expansion History
YEAR - ACRES
2010 - 2,200
2007 - 62
2014 - 1,180
2013 - 42
2012 - 10
2011 - 2,047
2008 - 14
2017 - 4
2016 - 18
2015 - 630
2004 - 1,758
2003 - 1
2002 - 17,756
2001 - 139
2000 - 333
1999 - 329
1998 - 2,374
1997 - 17
1996 - 2
1995 - 77
1993 - 71
1992 - 336
1991 - 13
1990 - 7
1989 - 24
1988 - 127
1987 - 527
1986 - 87
1985 - 48
1984 - 43
1983 - 1,409
1982 - 48
1981 - 112
1980 - 1,818
1979 - 227,403
County lines
Highways
Arterial streets
City limits
Miles
0
1.5
3
N
Metro
METRO DATA RESOURCE CENTER
600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232-2736
TEL: (503) 797-1742 | FAX: (503) 797-1909
drc@oregonmetro.gov | www.oregonmetro.gov

Land readiness matters

UGB expansions only produce jobs or housing when governance, infrastructure and market are addressed.

Past UGB decisions that did not emphasize readiness have been slow to produce housing



Source: ECONorthwest analysis using RLIS taxlot data (note: taxlot data tends to lag actual development)

Metro has improved its growth management process to focus on readiness

Old system

- Calculate the number of housing units needed
- Expand UGB based on soil types
- Concept plan areas after adding to UGB

New system

- Agree on where the region may grow over the next 50 years
- Concept plan urban reserve areas before expansion (Metro funding)
- Decide whether proposed expansions are needed based on outcomes

Land readiness in practice

2015: no cities proposed a concept planned UGB expansion and the Metro Council added no land to the UGB.

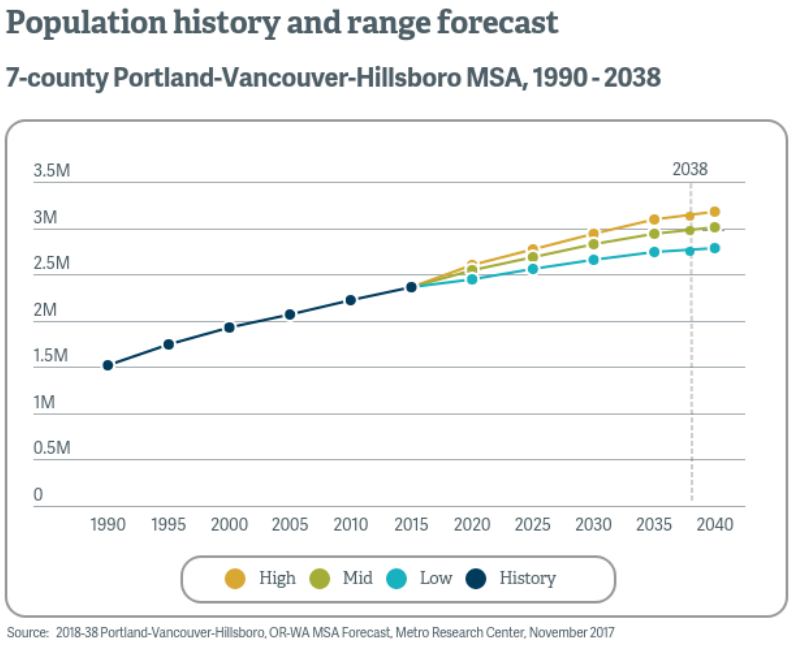
2018: four cities proposed concept planned UGB expansions and the Metro Council added all four areas to the UGB.

2022: $1 million in grant funding for concept plan offered; none requested.

What's in an Urban Growth Report?
Population and employment range forecast

2018 peer review:

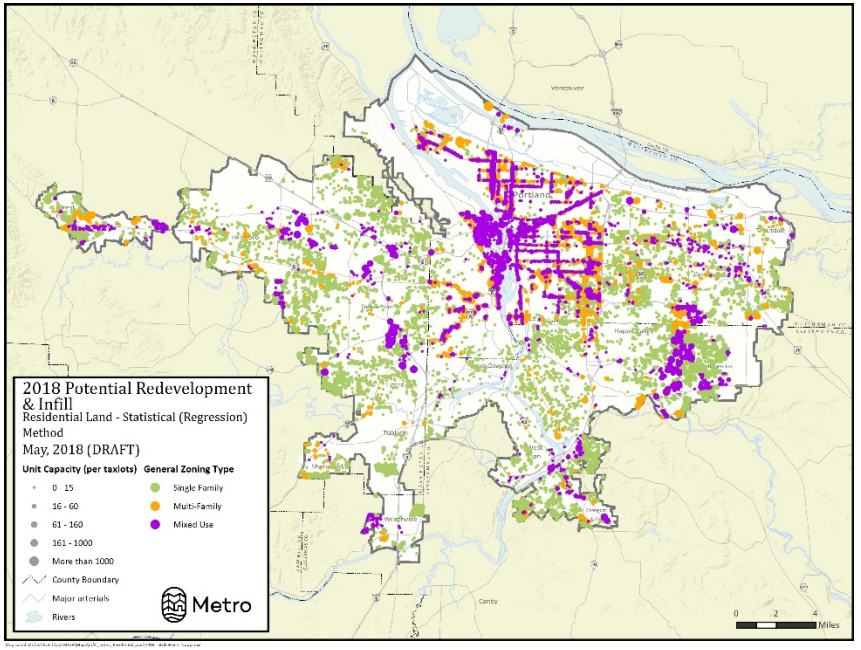
PSU Population Research Center
PSU NW Econ. Research Center
WA Emp. Security Department
ED Hovee, LLC
OR Employment Department
Portland Water Bureau
NW Natural



What's in an Urban Growth Report? Buildable land inventory

2018 peer review:

- Land Use Technical Advisory Group (methods and results)
- All cities and counties in the region had an opportunity to review results.



What's in an Urban Growth Report? Employment

- Trends:
  - Work from home
  - Industrial land uses
- Industrial land readiness
- Employment site characteristics
- Land demand estimates (aspirations and forecasts)

What's in an Urban Growth Report? Housing

- Development trends:
  - Price
  - Type
  - Size
  - Rent vs. own
  - Redevelopment and infill
- Displacement trends
- Housing needs analysis

2024 Urban growth management approach

- Focus on readiness of cities
- Urban growth report will not provide “the answer”; it will be a support tool.
- Differentiate between:
  - housing needs and land needs
  - employment forecasts and economic development aspirations

What will be new in the 2024 Urban Growth Report?

- HB 2001 middle housing predictions
- Focus on housing needs by income group
- Existing and future housing needs
- Consideration of economic aspirations & forecasts

2024 growth management decision work program review

February 15: MTAC

February 22: MPAC

March 7: Metro Council

Questions?

What else should we consider in our work program?

oregonmetro.gov