



# 2017 Transit Integration Report

NOVEMBER 2017



Washington State  
Department of Transportation



Puget Sound Regional Council

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		 <small>Public Works and Utilities Department</small>
	 Puget Sound Regional Council	 Seattle Department of Transportation
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## DRAFT 2017 TRANSIT INTEGRATION REPORT / NOVEMBER 2017

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# Introduction

*The 2017 Transit Integration Report is the fourth annual report from the Puget Sound Regional Council (PSRC) documenting transit coordination activities underway and anticipated in the central Puget Sound region. This year's report highlights recent examples of coordination, and identifies integration opportunities in the coming year.*



The Transit Integration Report describes efforts of transit agencies and other regional transportation stakeholders coming together to improve system performance and laying the groundwork for the significant expansion of the region's transit network over the next several years:

- Work continues to modernize the region's electronic fare card system known as ORCA, which stands for One Regional Card for All. In late 2016, members of each transit agency board and council collaborated in Regional Fare Forums to make recommendations to simplify fare policies and structures as part of the process to develop next generation ORCA (next gen ORCA). Fare simplification will improve the customer experience and reduce the time and costs associated with the development of next gen ORCA.
- The next several years will see the introduction of additional bus rapid transit and other higher capacity bus services in all parts of the region. Many of these routes are currently in various stages of planning, design, and construction, and involve close coordination not only with the local jurisdictions they serve but also often the Washington State Department of Transportation.
- While increasing the reach of the regional transit network provides options for people to drive less and therefore reduce carbon emissions (transportation-related uses are the largest source of carbon emissions in the central Puget Sound), a cleaner fleet of transit vehicles will also help. Agencies throughout the Puget Sound are exploring options to electrify portions of their fleets. Importantly, they are doing so in coordination, which will allow them to avoid redundancies in fleet configuration, share innovations, and coordinate on purchases.

The 2017 Transit Integration Report covers many of these topics and more. As the next several years see the region continuing to build out a high capacity transit network served robustly by local transit, delivering a seamless, easy-to-use system will be essential to deliver the potential benefits to transit riders and the regional transportation system as a whole. This is the vision established by the regionally integrated transit network developed as part of the update to Transportation 2040, the regional transportation plan.

Transit integration is a foundation for continuous improvement — a lot of coordination and integration already happens, but there will always be opportunities to do better. Transit integration must also continue to be seen in a broader context, not only among and between transit agencies, but also including local jurisdictions, the Washington State Department of Transportation, and other key stakeholders to realize the vision of an integrated regional transit system.



# Integrating marketing efforts

## Regional ORCA Marketing and TDM Project

The Regional ORCA Marketing and TDM Project is a partnership between King County Metro, Sound Transit, Pierce Transit, Community Transit, Everett Transit, and the Seattle Department of Transportation funded through WSDOT's Puget Sound Transit Coordination Grant program. The collaboration between these agencies focuses on increasing transit ridership and operational efficiency across the region by increasing ORCA card usage within targeted geographies where significant barriers have made it challenging for customers to use ORCA.

The ORCA card distribution campaigns were split into two different efforts so agencies could determine the most effective target audiences within their service areas and to enable distribution of ORCA cards before the regional marketing campaign was ready to launch in spring 2017. In total, 22,000 ORCA cards were distributed to targeted audiences through these two efforts.



### AGENCY PROMOTIONS

In fall 2016, each transit agency leveraged existing transportation demand management (TDM) programs to develop a marketing campaign to raise awareness of the benefits of ORCA card usage and distribute cards to customers with limited access to ORCA retail locations. Each agency specified a target audience to conduct outreach and distribute pre-loaded ORCA cards within their service area.



**Community Transit.** Community Transit used the existing Curb the Congestion program to reach out directly to multi-family housing complexes within ¼ mile of major transit facilities and Commute Trip Reduction-affected businesses to connect 192 individuals with ORCA cards for two weeks of unlimited fares on all regional transit agencies.



**Everett Transit.** Everett Transit focused the fall campaign on connecting low-income residents and riders currently using cash through promotion by street teams and in partnership with non-profits focused on low-income residents.



**King County Metro.** King County Metro participated in 21 events in the fall of 2016 to target low-income residents, people of color, customers with limited-English proficiency, and cash-paying riders. Through these events and in partnership with Public Health Seattle-King County and a Spanish language media campaign, 1,170 ORCA cards were distributed, 770 of those being ORCA LIFT.





**Pierce Transit.** Pierce Transit leveraged existing TDM programming Puyallup in Motion and Downtown on the Go to increase awareness of ORCA cards. Through an October route promotion, a transportation fair at UW Tacoma and the Try Transit promotion, 1,750 ORCA cards preloaded with 10 dollars were distributed during the fall campaign.

## REGIONAL PROMOTION

In spring 2017, a regional ORCA advertising campaign was launched to increase awareness of the benefits of ORCA in areas with low usage. Sound Transit led creative development and implementation of TV commercials, social media campaigns, and other geographically targeted marketing to promote a survey aimed at better understanding transit riders' familiarity and usage of ORCA. Survey participants received an ORCA card pre-loaded with 10 dollars in exchange for their participation. Between March and June of 2017, 22,000 pre-loaded cards were distributed to qualified survey participants.

what's next

*This project has received continued funding through the 2017-2019 Puget Sound Transit Coordination Grant. This next round of the project focuses on the marketing and distribution of pre-loaded ORCA cards to high-school students. Each partner agency will market ORCA based on their service area by distributing educational materials and conducting targeted outreach at school based events. This program will run from September 2017 through June 2019.*

## Increasing transportation options at Joint Base Lewis-McChord

There are more than 100,000 trips every day at Joint Base Lewis-McChord (JBLM) and most of these occur in single-occupant vehicles. The proximity of JBLM entry points to I-5 in Pierce County puts added stress on this heavily used roadway, causing delays during both peak and off-peak periods. Congestion on the I-5 corridor has serious impacts on the transportation system in the form of delays to the flow of freight and goods as well as commuters traveling between their worksites and homes.

Pierce County, Pierce Transit, and JBLM partnered in 2015 to produce the JBLM Travel Demand Management Plan to promote a culture at JBLM where all those who access the base can do so with viable transportation alternatives. The plan focuses on decreasing SOV travel in and around the base by enhancing travel options to include increased transit service, bike options, and targeted outreach to qualified participants.

The previous iteration of JBLM's transportation option was the JBLM Shuttle, which served 50 riders per month over nine stops around the central area of Lewis Main with 80-minute headways. As an updated replacement, GO Transit's Route 1 launched on Lewis Main in August 2015.



Today, GO Transit provides a free on- and off-base transit option for anyone with JBLM access, including Service members, Department of Defense employees, contractors, spouses, retirees, and children. Fifteen-passenger vans run weekdays with twenty-minute headways to over 120 stops, and it also operates consolidated evening and weekend routes. Two of the GO Transit routes connect with regional and local transit hubs at off-base stops in the cities of Lakewood and DuPont.

Riders find route and schedule information from several resources. The GoLewisMcChord.com web page provides riders with a route map with stops, schedules, and timetables. GO Transit continuously updates routes and schedules on OneBusAway, a real-time mobile application that helps riders view the next available bus arrival as well as route links to community partner transit options.

While ridership varies over the course of the year, rates consistently increased until leveling off toward the end of 2016. Ridership has increased from several hundred monthly riders in the first few months of operation to consistently averaging 5,500-5,700 monthly riders. This increase has come through several means, including:

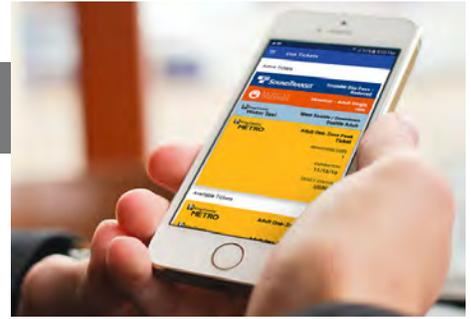
- Adjusting routes to match popular destinations on base;
- Administering best-practices of traditional transit systems; and
- Increasing outreach and social media marketing.

what's next

*Pierce County, JBLM, Intercity Transit, and Pierce Transit are continuously working together on GO Transit to improve system efficiency and increase ridership. GO Transit is working with Pierce Transit for a possible launch of a new route connecting McChord Field to the Lakewood Towne Center with a stop at the Lakewood Sounder Station. The connections to routes at these two stops would provide additional opportunities for riders to use existing public transit.*



# Aligning fare structures



## King County Metro and Sound Transit's mobile ticketing pilot project

Transit GO Ticket, the Puget Sound region's first mobile ticket app, is a partnership between King County Metro, Sound Transit, the City of Seattle, and King County Marine Division to offer riders an alternative to cash fare payments. The app allows riders to buy and redeem tickets to ride King County Metro, King County Water Taxi, Seattle Streetcar, and Sound Transit Link and Sounder trains from their mobile device. This app is designed to be more convenient for cash-paying riders — including visitors, sports fans, or those who do not use ORCA and would otherwise pay cash. The Transit GO Ticket app launched in November 2016 as a twelve-month pilot project.



Cash-paying riders generate added costs for transit agencies associated with fare collection, maintenance, and revenue allocation, as well as slowing customer boarding, which can decrease speed and reliability on some routes. Infrequent transit users are often discouraged from taking transit when cash payment is their only option because unplanned trips become more difficult when you need cash to ride transit and ticket vending machines are not available at all transit stops throughout the region.

By downloading Transit GO Ticket, riders can use the app to purchase tickets using a credit or debit card on their Apple, Android, or Windows mobile device and show it to a transit operator, fare collector, or fare inspector when they are ready to use it. The app allows infrequent transit riders the ability to purchase tickets in advance and store them until their next trip on transit. Tickets are activated just prior to boarding and, like cash payment, transfers are allowed between Metro buses within a two-hour window.



With the help of agency advertising and the development of new features, the app continues to be downloaded by new users and ticket sales increase monthly. New features, such as one-way Sound Transit Link and Sounder tickets, have opened the program to new markets. Continuing innovation of this product could include providing eligible riders with reduced fare tickets, allowing for ACCESS payment, adding special event tickets, and adding new transit agency partners. Transit GO Ticket is an intermediate step to regional mobile fare payment, providing interagency transfers, that

will be part of the next gen ORCA system. By expanding the number of services and continuing to make improvements to usability, the Transit GO Ticket app is made more appealing to cash riders who want the flexibility of individual ticket payments.

what's next

***Wide usage of this app and continued coordination of partnering agencies have the potential to reduce agency costs associated with cash handling and speed up boarding, allowing for more reliable and on-time transit service for all users.***



## Fare simplification to support Next Generation ORCA development

The 2016 Transit Integration Report highlighted the collaborative engagement taking place by Community Transit, Everett Transit, King County Metro, Kitsap Transit, Pierce Transit, Sound Transit, and Washington State Ferries on the development of next generation ORCA (next gen ORCA). By 2021, this improved system will provide customers with convenient, flexible, and secure fare payment. Next gen ORCA will be designed with the ability to expand to accept innovative ways of paying for transportation and accommodate new modes as the regional transportation network expands. The new system will make it easier for customers by providing them with many channels to purchase their fares (including web, retail, vending, and mobile solutions), by supporting immediate availability of purchased products and value, and by allowing them to pay their fares with multiple types of media.

As the ORCA agencies embark on the development of a new fare system, it is an opportune time to evaluate the region's fare structure, so any potential changes are incorporated into the new system design. Recognizing this opportunity, the ORCA Joint Board called for a Regional Fare Forum in 2016 to discuss and provide recommendations on regional fare structure and fare simplification. Through the course of three meetings, the group focused on three options for fare structure changes and came to the following consensus recommendations for the region:

**Eliminating zone-based fares.** This simplification would reduce customer confusion and operator interactions, decrease boarding times, and simplify system design to lower development costs of next gen ORCA.

**Eliminate trip-based peak fares.** This simplification would also reduce customer confusion and operator interactions, speed boarding, and result in a more consistent fare structure across the region while also simplifying system design to lower development costs for next gen ORCA.

**Fare capping.** Representatives considered a “pay-as-you-go” concept that would replace current ORCA period passes (e.g. monthly) with gradual E-purse payments that would be “capped” at pre-defined limits. Due to the complexities resulting from the broad range of fare offerings in the region, forum participants recommended not to pursue this change, but instead to consider this innovation for implementation in the future.

Following the Forums, all ORCA agencies brought the Regional Fare Forum Summary Report document to their fare governing bodies for adoption in acknowledgement of the work achieved. Throughout the year, agencies have worked with one another, the public, and their boards and councils to make decisions on fare policy. In 2017, the King County Executive made recommendations to, subject to Council approval, eliminate zone-based fares and trip-based peak fares in favor of a \$2.75 flat fare for all full-fare adult trips. The Community Transit Board of Directors is considering changes that will simplify zone-based fare structures.

*The King County Executive has recommended eliminating zone-based fares and trip-based peak fares in favor of a \$2.75 flat fare.*



what's next

**Adopted policies will be incorporated in the next gen ORCA system, resulting in a more consistent and simplified fare structure to make it easier for customers to navigate between regional agencies and reduce development costs of the new system.**

**In August 2017, the ORCA agencies released a Request for Proposals to determine the vendors that will partner with the ORCA agencies to develop the next gen ORCA system. In 2018, the ORCA agencies will begin design work with the selected system vendors to further develop the design prior to the system transition, which is planned for 2021.**



# Integrating service planning



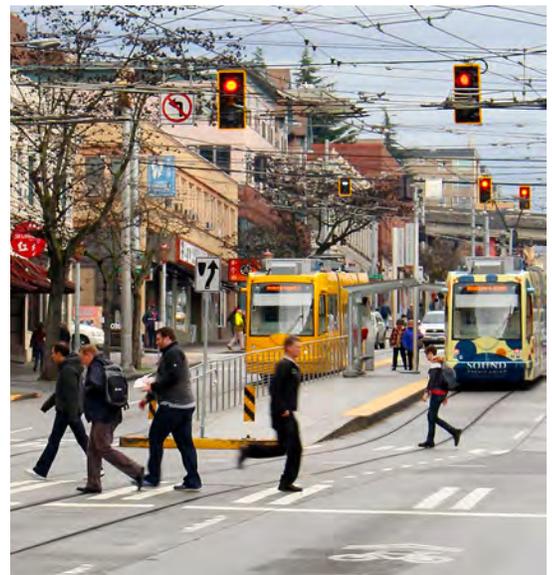
## One Center City

Center City, the name given to the greater downtown Seattle area encompassing 10 neighborhoods, is home to more than 70,000 residents and 250,000 jobs. Composed of some of Seattle's densest and fastest growing neighborhoods, Center City is home to people, jobs, and cultural institutions and provides critical transportation connections throughout Seattle and the region.

With nearly 230,000 people commuting per day in and out of Center City, major investments are being made to move people more efficiently. One Center City is being developed by the City of Seattle, King County Metro, Sound Transit, and the Downtown Seattle Association. This coordinated plan is intended to meet the changing needs of a growing downtown and region by connecting people, places, and products with a reliable transportation system and inviting public realm.

Planning for Center City includes the creation of a near-term plan to address the increased demand on downtown's roadways and transit system. The period of maximum constraint — occurring between fall 2018 and 2021 — includes multiple public and private projects leading to increased congestion and changes to the current transit system.

Current transit networks, as well as other vehicle road usage, will be disrupted by multiple projects happening in this short amount of time. Many of these projects have overlapping construction schedules, including the closure of Convention Place Station and subsequent closure of the Downtown Seattle Transit Tunnel to buses, expansion of the Seattle Streetcar



network, closure of the D2 Roadway connection between the Downtown Seattle Transit Tunnel and I-90, Colman Dock ferry terminal reconstruction, and the demolition and construction of the Alaskan Way Viaduct, will reduce mobility in the Center City.

Without action, these projects would be responsible for longer travel times, reduced travel reliability, and increased costs to maintain current transit level of service due to the need for additional transit vehicles.

The development of a near-term plan covering 2017 to 2023 includes the recommendation of projects, programs, and strategies that maintain safe, affordable, reliable, and efficient transportation options for customers traveling to and through downtown.

Near-term mobility capital project recommendations include a mixture of pedestrian and hub improvements, traffic signalization improvements, transit enhancements, and bicycle facilities, in addition to concurrent transit projects that were previously planned and funded.

Recommended improvements to transit hubs, areas where multiple routes and modes connect to facilitate transfers, include enhancements to improve bus connections while staying concerned with pedestrian safety. Recommended improvements made at the Montlake Hub at UW Station and the Chinatown/International District Hub have the potential to manage additional bus volumes to not overload downtown.

Other key near term recommendations include:

- Protected bike lanes on 4<sup>th</sup> Avenue and Pike and Pine Streets
- All door-boarding and off-board fare payment on the 3<sup>rd</sup> Avenue transit street
- A new Northbound transit pathway along 5<sup>th</sup> and 6<sup>th</sup> Avenues
- 2<sup>nd</sup> and 4<sup>th</sup> Avenues signal improvements to reduce conflicts between buses and turning traffic
- New and expanded TDM programs to provide better information, customized travel assistance, and expanded employer partnerships

what's  
next

*In addition to the near-term implementation plan, One Center City will establish a long-term downtown transportation and public realm vision for 2035.*



## Adult Day Health Express: transit and special needs transportation coordination

For those with special transportation needs — individuals with disabilities, older adults, youth, and individuals with limited incomes — driving a car is not always an available or viable option. Local public transportation agencies play an important role in providing transportation to this population, allowing them to access the region. Special needs transportation is any mode of transportation used by those defined as transportation-disadvantaged or with a special transportation need, and often relies on coordination between transit agencies and service providers to work effectively.

Coordinated special needs transportation happens when multiple organizations work together to their mutual benefit, gaining economies of scale, eliminating duplication of, expanding, and/or improving the quality of service to better address the transportation needs of the special needs population their agencies serve. Coordination makes the most efficient use of limited transportation resources by avoiding duplication caused by overlapping individual program efforts. It encourages the use and sharing of existing community resources.

The MultiCare Adult Day Health Express helps meet the need of coordinated transportation service that serves a special needs population. This program connects individuals in Pierce and Thurston counties to an Adult Day Health program, a vital resource providing individuals with significant needs medical treatment in their own communities. Through partnering with human services providers, MultiCare, Washington State Department of Transportation,



Sound Transit, Pierce County, the Washington State Department of Social and Health Services, and local private transportation providers, Pierce Transit has been able to transport more individuals more efficiently while increasing customer satisfaction.

Customers benefit from more direct and dedicated service with fewer constraints as to when they can travel. To do this, MultiCare enrolls each rider in the program and informs the transportation provider when transportation is needed. The provider of transportation can add riders to the most appropriate route and be paid directly on a per customer basis from MultiCare, with additional funding coming from Pierce Transit and human services. This process eliminates the need for transportation providers to vet the rider's eligibility and handle fare payment, and allows them to create a schedule that works most efficiently for the system.

Launched as a highly successful demonstration project in 2009, the program today provides transportation to roughly 3,000 passengers per month. With nearly \$3 million per year in cost savings to Pierce Transit, and additional efficiencies added regularly, this project has proven itself to be cost effective, allowing Pierce Transit to ensure that resources are not diverted from existing programs to cover this need.



## Coordinating and streamlining transit service changes

Transit customers benefit from service changes made to provide better service that reflects demand. If these changes are not coordinated and disrupt customers' ability to transfer between agencies, it disrupts their ability to effectively travel. Agencies are committed to minimizing customer impact by coordinating the interaction of routes to make the transfer experience as seamless as possible. To this end, agencies have been conducting service changes on the same weekends for many years.

In 2016, King County Metro, Sound Transit, Community Transit, and Pierce Transit modified their service change schedules to limit customer impacts and reduce agency costs associated with service changes. All service changes conducted by these agencies now happen over the course of the same weekends in March and September.



This updated schedule required King County Metro to reduce the number of agency service changes per year from three to two. This reduced the number of service changes occurring during winter from two to one, reducing associated effort and costs associated with adverse weather preparation. The reduction of service changes per year provides more consistency to riders, reducing confusion, and enhancing the transfer experience between service provided by multiple transit agencies.

Each service change requires agencies to update printed and online materials, conduct outreach to educate customers on the changes, and retrain drivers to learn new routes. Decreasing the number of service changes allows agencies to redirect money saved to other service activities, investing more into the quality of the service provided. For example, a reduction in the number of route changes allows training time — that would have previously been focused on updating routes for drivers — to instead be focused on hiring and improving existing driver's skills.

what's  
next

***As the regional transportation system continues to expand and agencies work to build on the available connections between bus and rail, service planning coordination will continue facilitating transfers between modes and operators.***



# Coordinating long range and capital project planning



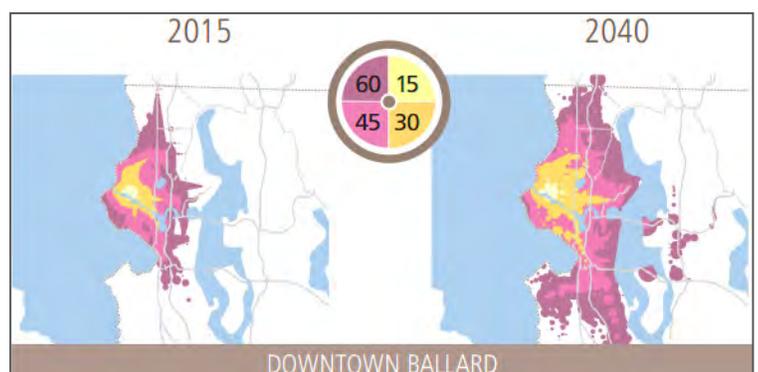
## Regional access to Remix in support of an integrated transit network

Remix is an online browser-based public transportation planning platform that provides rapid route design and modification of existing transit routes, allowing users to create complex scenarios and communicate their ideas visually, quickly and simply. It maps transit and ferry routes, simultaneously providing order of magnitude cost estimates and demographic ridership impacts of proposed changes. Route designs can be shared between agencies and modified easily through shared links. Outputs from the Remix sketch planning platform, and even a live display of the tool, can be used as visuals for stakeholder and public outreach on planning projects.

Regional Access to Remix Transit Sketch Planning is a partnership between the Puget Sound Regional Council (PSRC), and all public transportation agencies in the central Puget Sound region to obtain and utilize an enterprise license to the Remix transit sketch planning platform.

The project was funded by the Puget Sound Transit Coordination Grant program in 2016 and again in spring of 2017 which extended the project until June 2018.

This project enables collaboration between PSRC, public transit agencies, and ferry operators within the region using the Remix platform on a wide variety of planning efforts. The most immediate and powerful impact of the project was to support the development of future transit network designs that account for the Sound Transit's ST3 system plan and each agency's long range plan. This regionally integrated future



transit network developed in Remix is being incorporated into the update of Transportation 2040, the regional transportation plan. This is an unprecedented accomplishment in transit planning in this region. By summer of 2017, PSRC had fully integrated 2025 and 2040 transit and ferry networks into Transportation 2040.

The common software allows agencies to work together to create an integrated transit system that expands service for customers and saves agency resources by identifying overlapping service. The common transit sketch planning software will have value as Sound Transit extends its light rail system throughout the region, and as those extensions result in the need to revise the bus transit network in these light rail corridors.

what's next

*The partners for this grant renewed the regional license through a second Puget Sound Transit Coordination Grant that allows access to Remix through summer 2018. With this additional time, agencies in the region have an opportunity to more fully evaluate the use of a common transit sketch planning software like Remix, and identify options for longer-term use of Remix or a similar software.*

## Planning, developing, and delivering Bus Rapid Transit throughout the region

Bus rapid transit (BRT) in the region began in 2009 with the opening of Community Transit's Swift Blue Line. The Swift Blue Line and King County Metro's six RapidRide lines implemented between 2010 and 2014 feature enhanced reliability and service for customers through high-frequency operation, roadway improvements and an integrated, intelligent transportation system. Additional characteristics of these services include strong branding, enhanced passenger amenities, and features not consistently present on standard bus services, including real-time bus arrival signage and off-board fare collection.

Regional expansion of BRT is currently being planned and constructed to enhance service on existing high performing bus routes and to develop new routes to connect high population and employment centers and other transit options. Coordination with stakeholders along these corridors is essential for delivering maximum benefit by increasing bus reliability for customers and sharing the costs of improvements.

Effective BRT involves agencies working closely with stakeholders along the corridor to develop roadway improvements and service enhancements to increase speed and reliability. The combination of dedicated bus-only lanes, improved fare collection systems, smart traffic signals, and access improvements allow BRT to provide significant travel time savings to more people along the corridor.



**RapidRide expansion.** An aggressive expansion of the RapidRide system is planned within King County, with 13 new lines by 2025, and a total of 20 new RapidRide corridors by 2040. The RapidRide network will connect major destinations and link diverse and growing neighborhoods with employment, shopping, and transit hubs. The new RapidRide routes will deliver reliable, convenient, high-quality transit options. Through a combination of transit service improvements,



capital investment, and design treatments, these corridors will build on the success of existing RapidRide service to help meet local and regional transportation goals.

The RapidRide network will support an integrated transportation system that functions seamlessly with other transportation elements as well as regional transit projects, such as Sound Transit’s light rail expansion. The RapidRide network expansion will build on successful partnerships King County Metro has established with local jurisdictions in the delivery of its capital elements. This will involve the strategic leveraging of project funds, partnerships, and the joint pursuit of grant funding opportunities.



**King County Metro and the City of Seattle are currently formalizing their partnership in an agreement that will define agency roles and responsibilities for delivering elements of the program expansion on the seven new RapidRide corridors in Seattle. This partnership is underscored by a common goal to expand and improve the transit system in Seattle by improving route performance on each corridor. Together, King County Metro and the City of Seattle’s work will translate into faster buses, better reliability, and improved capacity to meet growing ridership demand.**

**Sound Transit BRT.** Sound Transit is adding its first BRT service along two corridors in King and Snohomish counties. In 2024 BRT service will operate along I-405 and SR 518 between Burien and Lynnwood and SR 522/523 between Shoreline and Bothell. In 2017, Sound Transit began working with cities and entities along each corridor, the Washington State Department of Transportation (WSDOT), King County Metro, and Community Transit to prepare for development of this new BRT service to improve transit connections across the region.

Program development involves planning, design and implementation of BRT elements, including routes, stations, a bus operations and maintenance facility, vehicle procurement, rider information/technology integration, and branding. These corridors will provide reliable and frequent service along 48 miles of King and Snohomish counties. All 21 stations will be accessible to persons with disabilities, offering shelter and providing information on schedules and routes with direct connections to local and regional destinations. Sound Transit projects 23,000 to 28,000 total daily riders will use these two routes.



**In 2018, Sound Transit will award preliminary engineering and environmental review contracts and begin the project development process.**



### Swift construction and planning.

Construction commenced in 2017 on Community Transit's Green Line, the second in the agency's Swift BRT network. Operations on the route will begin in 2019 connecting Boeing/Paine Field in Everett with the Canyon Park technology center. Coordination between Community Transit, Everett Transit, King County Metro, and WSDOT ensured that capital improvements would provide maximum benefit along this corridor. Partnering with local jurisdictions on sidewalk and technology improvements will allow more people to access this route.



### what's next

*Planning is also underway for the agency's next Swift bus service, the Orange Line. Connecting Edmonds to Mill Creek, the Orange Line will provide a connection to light rail at Lynnwood Transit Center by its planned opening date in 2023. Community Transit is working closely with stakeholders along the corridor to identify a shared set of goals and objectives to provide the most benefit to customers.*

**High Capacity Transit in Pierce County.** BRT is a possible alternative in Pierce County along the Pacific Avenue/SR 7 corridor. In partnership with Sound Transit, the City of Tacoma, Pierce County, the Puget Sound Regional Council, and WSDOT, Pierce Transit is studying a range of alternatives to provide high capacity transit in this corridor connecting the Tacoma Dome Station, home to Sounder commuter rail, Amtrak, Tacoma Link light rail, both Intercity Transit and Sound Transit regional express bus service, and Pierce Transit local service, with Spanaway and south Pierce County. This 14.4-mile corridor is currently served by Pierce Transit's Route 1, which has the highest ridership in the agency's system, representing approximately 20% of total fixed route ridership system wide. Sound Transit's ST3 allocates a \$60 million capital contribution to enhance service through speed and reliability improvements along the corridor. In addition, the agency received \$15 million from the State Transportation Package in 2015 for the same purpose.

### what's next

*Pierce Transit is connecting with local stakeholders to determine cost-effective enhancements to increase transit ridership and better connect the southern end of the Pierce Transit service area. This high capacity transportation system will support local and regional goals of stimulating urban infill projects through compact land use, transit-oriented development, and targeted population and employment growth.*



# Integrating administrative functions and business practices

## Transit asset management target-setting and plan development

Maintaining the transit network in a state of good repair allows transit agencies to continue to provide customers with efficient, reliable, and safe service. Transit asset management is the systematic process by which transit agencies use the condition of capital assets to guide optimal prioritization of available funding to maintain a state of good repair. By leveraging data to improve investment decision-making, asset management prioritizes maintenance in capital spending, allowing agencies to improve reliability and safety, while managing costs.

In July 2016, the Federal Transit Administration (FTA) issued a final rule requiring transit agencies to maintain — and document — minimum transit asset management standards. The new standards will help transit agencies keep their systems operating smoothly and efficiently. All recipients of FTA funding that own, operate, or manage capital assets used for public transportation are required to develop transit asset management plans to maintain a state of good repair and plan for future investments. The rule requires reporting of assets at a level of detail sufficient to monitor and predict their performance and to inform investment prioritization of the transit asset management plan. The plans developed by affected transit agencies and ferry operators inform regional and statewide targets.

The Puget Sound Regional Council (PSRC) has a role of integrating the agencies' transit asset management planning into the regional planning process and coordinating with transit providers to assess progress toward achieving the region-wide attainment of transit State of Good Repair performance. To assist in implementation of the transit asset management rule in this region, PSRC convened a group of stakeholders that includes all public transit agencies, ferry operators, WSDOT Public Transportation Division, and the FTA. This group, known as the Transit Asset Management Advisory Committee, has been meeting periodically since the initial transit asset management notice of proposed rule-making in 2013.



The Transit Asset Management Advisory Committee helped develop a method of addressing regional transit asset management performance targets in the context of multiple public transit agencies preparing their own agency-specific transit asset management performance targets within the region. The method used relies upon information provided by agencies, which PSRC rolls into a regional performance target as a “weighted average” of each transit agency’s target for a particular asset class’ performance measure. This method provides an overall regional performance target for the performance measures.

The initial set of transit asset management performance targets was approved by the PSRC Executive Board in June 2017, complying with FTA’s timeline for approval of the initial set of performance targets.



***As assets change, so too will performance targets. Agencies and PSRC will work collaboratively to update these targets. Collaboration and data sharing will be essential for the successful updates of both agency and regional targets. Transit agencies in the region are currently working to complete their FTA-compliant transit asset management plans by October 2018.***

## Bus fleet electrification activities



Transit agencies across the region have aggressive commitments to reduce greenhouse gas and air pollutant emissions. Electric vehicles are crucial for achieving these goals and have the opportunity to provide long-term savings by reducing agency reliance on fuel through maximizing the usage of alternative sources of energy. For customers, switching to buses that use cleaner energy sources means buses emit less noise and air-pollutants. Dedicated funding sources at the national level for zero-emission and low-emissions transit buses and supporting facilities have allowed transit agencies throughout the region to take large steps in achieving their emissions goals.

The introduction of a battery-electric bus fleet has significant implications for a transit agency’s infrastructure, daily operations, and vehicle maintenance. As an early adopter of these vehicles, King County Metro has laid the groundwork for successful implementation and is a resource for other agencies in the region and across the country. In September 2017, King County Metro hosted the “Battery Electric Bus Showcase,” an opportunity for transit agencies across the United States and Canada to visit and learn from Metro’s experience with these buses and share their own challenges and successes.



Both Pierce Transit and Everett Transit have had the opportunity to work closely with King County Metro to see the operational needs of these new vehicles. Staff from multiple departments at Pierce Transit and Everett Transit visited Metro to tour the base and learn directly from maintenance and operations staff. Knowing what tools and technologies are required for the operation and preventative maintenance in advance of vehicle procurement has allowed agencies to incorporate costs into their project budgets to avoid delaying vehicle operations and diverting other agency funds.

Working closely with energy providers to provide guaranteed electricity and manage costs is essential as more energy will be required to operate a growing fleet. Agencies in the region have begun working closely with energy providers to plan for future expansion.

what's next

***Continued coordination between agencies will allow them to avoid redundancies in configurations, coordinate on purchasing, and share innovations. Pierce Transit and King County Metro participate in a monthly Network Group of electric bus fleet managers hosted by the Oregon Department of Transportation. This monthly conference call brings together transit agencies from Washington, Oregon, and California that run, or are planning to run, electric vehicles to exchange tips and best practices. New technology presents challenges to agencies, and coordination on the sharing of information and vehicle procurement is crucial for the best use of public investment.***

Electrification efforts to date and future planning include:



***We'll Get You There***

**King County Metro.** Three battery-electric buses and an overhead fast-charging station began operation on the eastside of King County in 2016, adding to King County Metro's existing fleet of 174 electric trolley buses. These buses, along with eight more battery-electric vehicles to be added this fall, and 30 more through 2018 and 2019, are expected to have lower maintenance costs over their lifetimes and decrease greenhouse gas emissions as compared to the existing hybrid-diesel vehicles in Metro's fleet. Metro also intends to test 40- and 60-foot extended-range (slow-charge) battery electric buses starting in mid-2018.



**Everett Transit.** Everett Transit is in the process of purchasing seven battery-electric buses and a plug-in depot charger using the Federal Transit Administration's Low or No Emission Vehicle Program (Low-No) and state resources. These buses will run on Everett Transit's existing highest capacity route and a new route connecting new transit-oriented developments. Passengers and residents along these routes will directly benefit from the absence of emissions and noise as compared to existing diesel buses.



**Pierce Transit.** Pierce Transit is currently planning for the purchase of three battery-electric vehicles and plug-in depot chargers with funding from the Low-No program. Initially, the new buses will be assigned to shorter blocks (a combination of several routes that a bus serves in a single day) and then phased into longer blocks as confidence is gained in the distance they can travel on a single charge. By not assigning these vehicles to specific routes, more customers throughout the service area will have the opportunity to ride in one of them. Pierce Transit's decision to introduce electric buses will help diversify their fleet and the ability to continue to provide service even if one fuel type were to become temporarily unavailable.





**Kitsap Transit.** In 2016, Kitsap Transit dedicated local funding to the demonstration of one battery-electric bus to serve routes that make direct connections to Seattle via the Fast Ferry and the Washington State Ferries. The agency is planning to procure two additional battery-electric buses and additional supportive infrastructure. By investing in these zero-emission vehicles, the agency will reduce emissions and save money, while providing an increased quality of service to customers.

## Washington State Transit Insurance Pool

Public transit agencies face unique challenges and risks. To best address these challenges and most effectively provide costs savings to individual agencies, effective integration happens at a scale



larger than the central Puget Sound region. In 1989, eight transit agencies from across the state, threatened by an unstable economy and skyrocketing insurance premiums, came together to create the Washington State Transit Insurance Pool (WSTIP) to share the burden of risk and reduce the costs of each individual agency.

Today, WSTIP consists of 25 Washington public transit agencies that combine their resources to provide and purchase insurance coverage, manage claims and litigation, and receive risk management and training. In the central Puget Sound region, Community Transit, Everett Transit, Kitsap Transit, and Pierce Transit are member agencies.

Each member agency has a seat on the WSTIP board to contribute to the development, vision, and goals of the partnership. Member agencies annually contribute funds to the pool to build surplus, purchase secondary insurance, and manage risk. This pool provides resources to resolve claims and recover damages on behalf of member agencies.

To minimize risk and liability for all involved, WSTIP utilizes the Washington State Transportation Training Coalition to provide dozens of trainings throughout the year on safety and personnel issues. Along with WSTIP member agencies, King County Metro participates in these trainings to advance agency knowl-



edge on safety and personnel practices, and other issues that expose agencies to risk and liability.

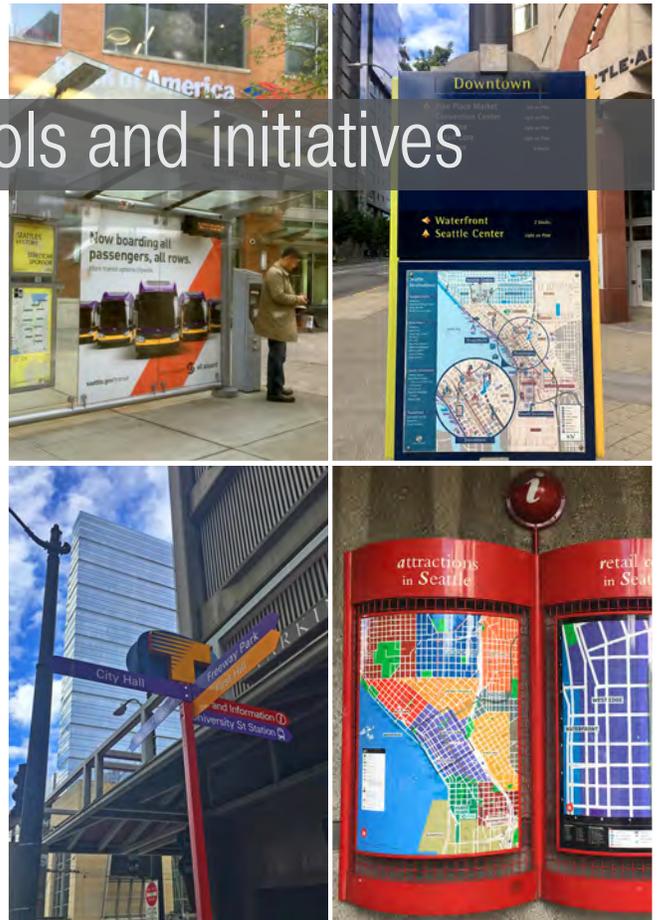
In working together, member agencies combine experience and knowledge to analyze incidents and actions that have caused serious losses. These combined experiences are used to create a series of recommendations to prevent comparable future losses, ultimately saving member agency resources through loss prevention.



# Integrating customer tools and initiatives

## Coordination in support of a standardized wayfinding system

Previous Transit Integration Reports have taken up the topic of wayfinding, which refers broadly to the various media by which information is communicated to pedestrians and transit riders and can include signage, maps, software applications, and auditory messaging. Wayfinding is one transit integration area where most everyone can agree that improvements can be made, most specifically for pedestrians, tourists, recent arrivals to the region, and new transit users. The 2016 Transit Integration Report documented initial conversations between potential agency and private sector partners to develop a coordinated strategy for wayfinding to increase ridership and improve legibility and customer experience.



Funded by the Puget Sound Transit Coordination Grant program, the Seattle Department of Transportation (SDOT) is kicking off a project to develop a coordinated and user-oriented pedestrian wayfinding system.

Several ongoing and upcoming transportation projects in Seattle will include wayfinding elements. Without standardization, multiple individual systems could result in duplicative or conflicting information, crowding of the public realm, and gaps in information.

The project aims to develop a defined hierarchy of wayfinding elements, design and placement standards, and transit integration principles. The project will user-test a pilot system of elements to inform final standards. This project will not replace in-station transit branding and transit route maps. Rather, it will complement in-station information with design guidance and best practices for local-area information — enabling people on foot, or those using a mobility device, to easily navigate between transit systems and to their destinations. SDOT partners in this project will include King County Metro, Sound Transit, Community Transit, Everett Transit, and Pierce Transit.

Measures of success could include awareness of the wayfinding system, usability, satisfaction, changes in how many people feel lost, and shifts in travel behavior. Longer-term analysis could measure the value of the system to local businesses and changes in mobility choices. Surveys, workshops, and other outreach methods could be used to understand changes in customer satisfaction, experience, and behavior.

what's next

***In addition to developing design standards for a regional wayfinding system, the project will seek to identify a system for maintenance and operations of wayfinding elements to ensure longevity of the system as the urban environment and transit systems continue to evolve and grow. Long-term and short-term strategies for integration with partner agency projects and standards will be considered to facilitate design consistency.***



## Mobility on demand: efforts in integrating shared mobility and transit



Shared mobility services are not new for the central Puget Sound region — the region leads the nation in vanpool participation with more than 2,200 vans in operation each weekday. In addition to the highly-used vanpool, VanShare, and carpooling programs available, a new landscape of options in shared mobility has quickly emerged in the transportation market. New car-share, ride-hail, and bike-share options have changed the way people in the region get around. Due to the recent emergence of ride-hailing services, transit agencies are determining best practices and standards for incorporation into existing services.



In partnership with Sound Transit, King County Metro and Pierce Transit are currently developing programs to leverage ride-hailing services, specifically Uber and Lyft, to provide enhanced mobility options to their customers. These partnerships are focused on solutions to first/last-mile connections, managing demand at park-and-ride lots, and providing guaranteed ride home services when fixed-route service is unavailable.



UBER

The Uber logo, consisting of the word "UBER" in white, uppercase, sans-serif font on a black rectangular background.

This pilot programs address additional aspects of accessibility to serve all customers. Agencies are working with Uber and Lyft to use a tool that allows customers without access to the app — because of phone limitations or not having electronic banking access — to call a customer service liaison able to connect them to a ride. Additionally, customers who use a wheelchair, or are otherwise unable to use ride-hailing services, can benefit from the program by using a different set of vehicles.



*The advancements made in these partnerships will serve as templates for integrating new mobility options, such as ride-hailing services, into the regional transit system and ensure they are accessible to all people in the region. At the end of these demonstration projects in 2018, agencies will assess the advantages to this partnership and will determine customer and agency benefits.*

## LIMITED ACCESS CONNECTIONS IN PIERCE COUNTY

Due to recession-induced reduction in service hours and land uses not suitable for fixed-route transit, some of Pierce Transit's riders are unable to rely on fixed-route service to meet their daily transportation needs. Early service termination, wait times of more than one hour, and geographic gaps in service affect significant numbers of customers. In addition, park and ride capacity adds to the stress on the current transportation network and limits riders' ability to access transit. With current demand, many customers divert to single occupancy vehicle use for commutes.

Pierce Transit has partnered with Pierce College Puyallup, Sound Transit, and Uber to develop Limited Access Connections, a three-pronged approach providing customers better access to Pierce Transit and Sound Transit's current service network.

**First/last-mile solution.** Pierce Transit has mapped eight medium- and high-density areas of its service area that are beyond a half-mile walk from a fixed route bus stop. Customers within these zones can use Uber to fill the gap between their start or end-point and a bus stop. These fully subsidized trips allow more people to access the current system without adding new routes in areas with less density, and provide an opportunity to identify areas where new transit service may be used.

**Guaranteed ride home.** Limitations to Pierce Transit's ability to provide all-night service on routes disincentivizes many from relying on the current system outside operating hours. Through this program, riders can use Uber to get home outside normal service hours, while paying the standard transit fare. The target audience for this program is students, faculty, and staff at Pierce College Puyallup, where classes get out as late as 10:00pm and bus service ends by 8:00pm. By working closely with the college and distributing information to potential riders, this service provides needed rides to individuals without vehicles.

**Commute congestion relief.** Some park and ride lots are highly used, to a point that they reach capacity early in each morning's commute. With current demand, many customers divert to single-occupancy vehicle use for commutes. Riders traveling during peak commute hours on weekdays, with a trip in a zone that does not have fixed route bus services, can use Uber to travel within five miles of a park and ride or Sounder station. These fully-subsidized trips allow customers to use transit instead of traveling by single-occupancy vehicle.

Pierce Transit has worked closely with Sound Transit and Pierce College Puyallup to identify areas best suited for pick-up and drop-off. These areas are marked, allowing customers and Uber drivers to use the best points of access to avoid conflicts between other modes.

## MOBILITY ON DEMAND IN KING COUNTY

Sound Transit, King County Metro, and the Los Angeles County Metropolitan Transportation Authority have partnered to conduct a dual-region pilot using Lyft to expand transportation options for customers and expand the number of people using public transportation for a portion of their transportation needs.



While the Los Angeles and Puget Sound regions have excellent fixed-guideway bus and rail transit, it is difficult for a transit agency to connect riders within a few miles' radius of the stop itself cost effectively, or at a frequency that satisfies riders. Existing ride-hailing companies can meet these first /last-mile needs due to an existing density of vehicles in reserve in the service area.

Sound Transit and King County Metro are collaborating with Lyft to develop a partnership to launch in 2018. Partners are interested in determining the following:

- How ride-hailing services can be aligned with existing transit service to serve an effective first/last-mile solution;
- How key partners can cost-effectively ensure equal access for individuals with disabilities and low incomes; and
- How to enable service to lower income and unbanked populations.

what's next

***Over the 12-month duration of the pilot demonstration, the project team will test a variety of subsidy structures, aiming to identify a structure that is beneficial for the customer, the transit agency, and Lyft. Goals will include affordability for the customer, sustainability for the transit agency, and profitability for Lyft. The ultimate objective will be to define a structure that will be sustainable after the conclusion of the pilot demonstration.***

## Regional parking management coordination



In 2016, there were more 30 park and rides in the central Puget Sound with a 96% utilization rate or greater. These facilities account for more than 20,000 parking spaces, or about half of the total park and ride capacity in the region. Trends indicate that parking utilization has increased in line with the economic recovery and that the most-full park and rides are filling earlier and earlier in the morning.

Very full park and rides that fill very early in the morning create many challenges. For riders,

it means arriving early at a park and ride not out of convenience or need, but simply to get a parking space. For riders without this flexibility, it often means they do not have access to the regional transit system, creating equity concerns for those unable to use the region's most-full park and rides. For transit agencies, it can lead to buses and trains crush-loaded by the artificial peak of early arrivals, which are then forced to by-pass riders down the line. And for local jurisdictions, it can mean congested local streets surrounding these facilities.



In 2014, Sound Transit implemented a pilot program testing a variety of parking management strategies, including parking permits, rideshare collaboration, and real-time parking information. Following that pilot period, Sound Transit decided to move forward with a permanent permit parking program. In advance of the launch of that program, the transit executives in the region tasked the Puget Sound Regional Council with convening a group of park and ride owners to inform the development of Sound Transit's permanent permit parking program and to identify issues that could prevent an integrated program from occurring throughout the region.

The Regional Parking Management Working Group consisted of staff from all transit agencies and the Washington State Department of Transportation. The Working Group began meeting in the spring of 2015 and created a template for a permit parking program that was acceptable to all participants.

Sound Transit's permit parking program launched with the opening of the Angle Lake Station in September 2016 and expanded to include a total of nine park and rides by December 2016. In February 2017, King County Metro launched a permit parking program at six facilities; in November 2017, the program expanded to nine additional facilities. King County Metro and PSRC staff were part of Sound Transit's procurement process to select a vendor of the program, and King County Metro piggy-backed on that contract, which saved them resources from doing their own procurement. And because they use the same vendor, there is an integrated customer interface for riders interested in securing a permit.

As of now, HOV permits are the only permits available, meaning they are only available to customers with two or more transit, vanpool, or carpool users per vehicle. Permit-holders report that the greatest benefit of the program is certainty in finding a space, while Sound Transit and King County Metro are seeing more riders per parking stall as a result. If permitted spaces are unused after the peak of the morning rush hour, they become available to anyone arriving at the park and ride. Sound Transit plans to introduce SOV permits sometime in 2018.

what's  
next

***Other transit agencies in the central Puget Sound are monitoring the performance of the permit parking program and may consider implementing it at their own very full park and rides. And while the Regional Parking Management Working Group greatly informed the design of the permit parking program, the Working Group also identified that the program as-designed could not be implemented at WSDOT-owned park and rides because of the monthly fee associated with securing a permit.***

***Transit agencies are pursuing options to work collaboratively with WSDOT and the state legislature to address these issues in the hopes of making these very full park and rides perform better. In addition, transit agencies are improving other ways for customers to reach transit, including walking, bicycling, and drop-off options, which can help reduce demand for parking stalls.***





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