



Image from SDOT

6 FUNDING & PERFORMANCE MONITORING

As this plan is being written, every sector of transportation is faced with significant funding challenges. Declining gas tax revenues are leading to diminished funds for roadway capital improvements, operations, and maintenance. These declines also affect federal transit funding. Operating revenues, which are a local responsibility for urban transit agencies in Washington State, are also down significantly due to declining sales tax receipts during the current economic downturn. It is hard to predict the future of transit funding, but one thing is certain—there are real and significant challenges ahead, not only to expand service, but also to maintain current service levels and quality. Achieving the 20-year plan for transit set forth in the TMP will be challenging in this funding context. Success will require new local funding sources, stronger partnerships with public transportation providers, and increased involvement of private sector partners to fund and expand Seattle's transit service offerings.



The TMP transit investment framework will support the ability of the City and its partners to develop a high-quality network of frequent transit services that connect its urban centers and villages and meet the mobility needs of its workers and residents.

Image from Nelson\Nygaard

TRANSIT FUNDING FRAMEWORK

Implementing the Seattle Transit Master Plan will require a significant and sustained effort by local, regional, and state agencies to identify, secure, and efficiently utilize new sources of funding. The long-term contribution of new facilities and services in fulfilling community goals will depend upon stable funding and diligent monitoring. The City plays a key role in evaluating transit in Seattle, including: (a) project and program implementation, (b) service performance, and (c) adaptive management of plan implementation and service delivery.

Regional, state, and federal funding sources for transit (including funding for both capital and operations) are, and appear likely to continue to be, increasingly scarce and competitive. Transit agencies, including King County Metro Transit, are shifting policies that govern how they allocate service to models based on performance, typically measured by ridership and productivity. Capital funding programs, such as the Federal New Starts and Small Starts programs (discussed in further detail in this chapter) require project sponsors, including cities and transit agencies, to demonstrate that new rail and bus projects will meet criteria for cost-effectiveness. Moreover, federal agencies, including the U.S. Department of Transportation (DOT), U.S. Environmental Protection Agency (EPA), and U.S. Housing and Urban Development (HUD), now partner to ensure that grant programs meet coordinated mobility, housing, and environmental goals.

Early successes from the TMP are critical to ensure future projects and services garner needed funding. When transit customers, voters, employers, and elected officials see meaningful

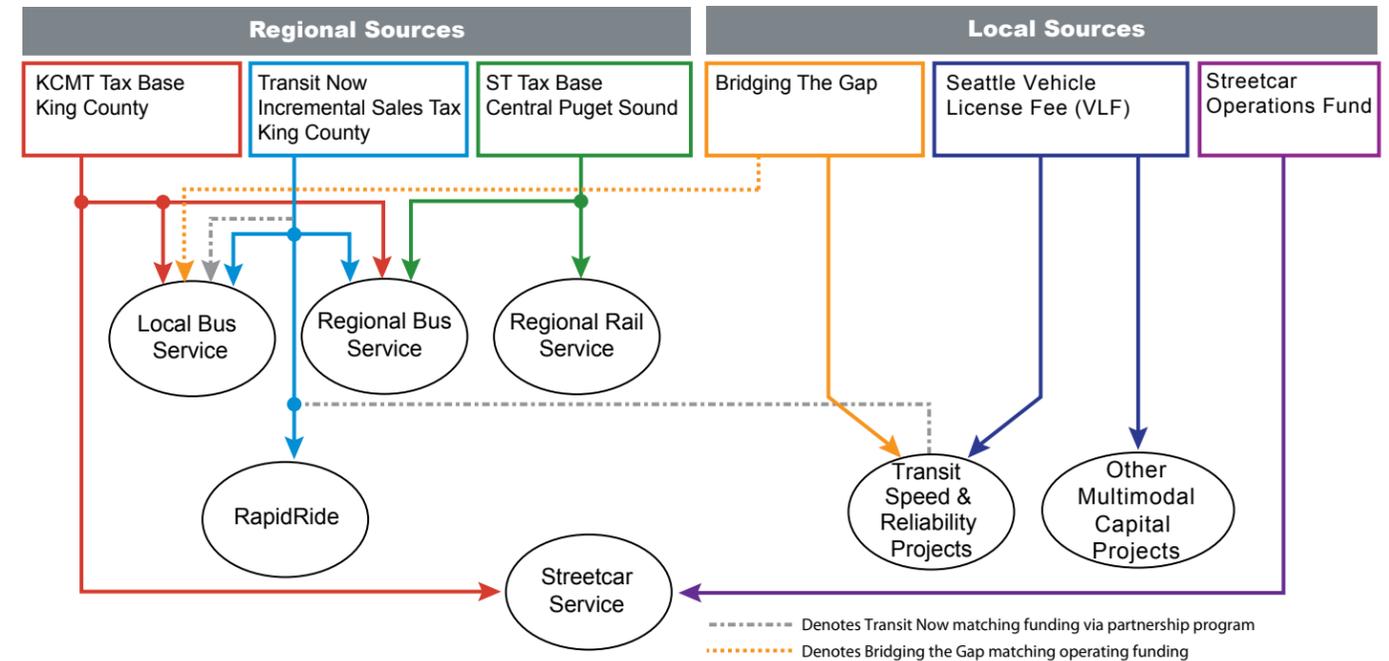
improvements to the system, they are more apt to lend support for future funding measures. To this end, early and aggressive implementation of TMP Priority Strategies increases the viability of other TMP projects and strategies being implemented.

Metro and Sound Transit funds are directed by regional policy to support a variety of transit capital and operating needs. These policies support the City's transit investment needs, but the amount of funding available and allocated by policy may be insufficient for Seattle to accommodate growth projected in the Comprehensive Plan. Flexibility to respond to current funding available from Metro and Sound Transit is a key building block of the TMP investment framework (see Chapter 1, page 1-10). As these sources wax and wane, it is necessary for the City to re-prioritize where it directs local funds. For example, in a challenging economy, the City may choose to direct more funds to maintain current service levels on high ridership routes. When Metro sales tax receipts are strong, the limited funds the City of Seattle has available for transit may be better spent on capital projects.

The TMP embraces the concept of opportunity. Over the life of this plan, new opportunities will arise which were not previously anticipated. The multiple account evaluation approach taken by the TMP (see Chapter 3) should be used to guide the City as it explores new opportunities for implementation.

Since there will never be sufficient funds to meet all of Seattle's transit needs, there must be a priority hierarchy established to guide funding allocations in a way that ensures continued progress toward City goals. Inevitably, these decisions will need to be made in the context of challenging trade-offs. The investment

FIGURE 6-1 MAJOR LOCAL AND REGIONAL (METRO AND SOUND TRANSIT) FUNDING SOURCES



framework establishes criteria to ensure that competing goals are balanced.

The investment framework must be a dynamic allocation process that continually re-evaluates each investment decision and establishes a priority for that decision in the coming year or two years. The TMP is updated every five years, allowing the City to reassess how capital and operating investments support the opportunities and challenges of the day.

CAPITAL FUNDING NEEDS AND OPTIONS

Certain TMP projects, including proposed streetcar, rapid streetcar, and bus rapid transit (BRT) lines, require high levels of up-front capital investment. Capital costs are expenses associated with the design and construction of a new transit line, development of supportive facilities such as stations or maintenance facilities, and purchase of vehicles.

Although rail modes have higher capital costs, they provide increased vehicle capacity and lower operating costs per passenger compared to bus operations. BRT invests in exclusive right-of-way and transit priority treatments in return for more reliable service. Rail modes require unique maintenance facilities, necessitating additional land acquisition and construction costs.

STRATEGY AREA: IMPLEMENTING AN INVESTMENT FRAMEWORK

- IF -1:** Local investments should be viewed in the context of the regional transit (Metro and Sound Transit) funding picture, including Metro and Sound Transit investments in service and capital.
- IF -2:** Limited City transit funds should be used to leverage other regional, state, or federal funds whenever possible.
- IF -3:** Decisions to fund transit must be viewed in light of future obligations, not just the current period.
- IF -4:** The multiple account evaluation approach should be used to maintain balance between City goals.
- IF -5:** The City should carefully track the returns on its investments in transit operations and capital projects.
- IF -6:** The City should maintain flexibility to respond to future opportunities.
- IF -7:** The investment/funding process must be re-evaluated on a periodic basis, ideally a one- or two-year interval.
- IF -8:** City funding for transit should be prioritized toward developing long-term capital projects and service subsidies that improve transit speed, reliability, and capacity in FTN corridors.

CAPITAL COST TO IMPLEMENT HIGH CAPACITY TRANSIT (HCT) AND BUS PRIORITY CORRIDORS

The total capital cost to implement the Frequent Transit Network (FTN) improvements included in this plan is in the range of \$0.9 to \$1.1 billion (2011 dollars). This includes a total of about \$850 million for capital improvements to implement recommended HCT corridors and \$150 to \$300 million for the capital improvements needed to implement speed, reliability, electrification, and access improvements in Priority Bus Corridors. In addition to

trolley wires and substations where electrification is proposed, these bus capital improvements include priority treatments, such as bus stop and crosswalk bulb-outs, off-board pay stations, and enhanced traffic signal systems that facilitate transit priority and/or queue jumps. Estimated capital costs to implement HCT or bus priority improvements in each corridor are detailed in Figure 6-2.

FIGURE 6-2 ESTIMATED CAPITAL COSTS FOR HCT AND PRIORITY BUS CORRIDORS

Corridor	Corridor Description	Preferred Mode	Capital Costs**	
			Millions of Dollars (2011)	Millions of Dollars (2011) per Mile
HCT Corridors				
6	Colman Dock - Capitol Hill/23rd Ave via Madison	BRT	\$87.0	\$42.2
8	Roosevelt-U-District - South Lake Union-Downtown via Eastlake Ave	Rail	\$278.0	\$46.0
11	Loyal Heights-Ballard-Fremont-South Lake Union-Downtown	Rail	\$335.0	\$47.9
CC1/CC2	Center City Connector Alternatives: Lower Queen Anne-King Street Station via 1st Ave (CC1) or South Lake Union-Westlake-King Street Station (CC2) *	Rail	\$124.3	\$55.0
Subtotal: Capital Costs for HCT Elements			\$824.3	
Priority Bus Corridors				
1	West Seattle - Downtown	Bus	\$3.6	\$0.3
2	Burien TC/Delridge - Downtown	Bus	\$5.2	\$0.7
3	Othello - U-District	Bus	\$20.0	\$1.9
4	Mount Baker - Downtown	Bus	\$0.7	\$0.3
5	Rainier Valley - U-District	Bus	\$24.8	\$2.6
7	Queen Anne - South Lake Union - Capitol Hill	Bus	\$38.6	\$7.7
9	Aurora Village - Downtown	Bus	\$1.0	\$0.1
10	Northgate - Ballard - Downtown	Bus	\$4.2	\$0.5
12	Lake City - Northgate - U District	Bus	\$5.1	\$0.7
13	Ballard - U-District - Laurelhurst	Bus	\$15.1	\$2.8
14	Crown Hill - Greenlake - U District	Bus	\$57.0	\$8.6
15	Phinney Ridge - Greenwood - Broadview	Bus	\$9.3	\$1.0
Subtotal: Capital Costs for Priority Bus Corridors			\$181.0	
Total Capital Costs for all HCT and Bus Priority Corridors in TMP			\$1,009	

* The City has submitted a grant application to fund an Alternatives Analysis (AA) of two Center City Connector alternatives. The cost included in Figure 6-2 is the higher of the two alternatives and assumes that only one option would be selected for construction.

** HCT capital costs include vehicles, which are not included in priority bus corridor costs.

CAPITAL FUNDING OPTIONS

Funding to implement the capital improvements recommended in this plan will come from a variety of sources:

- **Local** taxes and fees, including property, sales, parking, and business and occupation taxes; vehicle license fees; and private funds through partnerships
- **Regional** sources, including Sound Transit
- **State** sources, including Washington State Department of Transportation (WSDOT) programs and other state appropriations
- **Federal** sources through the Puget Sound Regional Council (PSRC) and nationwide discretionary sources

FEDERAL FUNDING OPTIONS

Most federal funding for transit capital improvements comes through congressional appropriations to the Surface Transportation Act (STA). The City of Seattle is recognized by the Federal Transit Administration as a transit operator (i.e., currently operates the Monorail and South Lake Union Streetcar) and is eligible to directly receive federal grant funds for transit projects.

Federal Transit Administration (FTA) Capital Grants

Federal Transit Administration grants are a primary funding source for transit capital investments. Potential funding sources for TMP investments include:¹

- **FTA Section 5307 Urbanized Area Grant Program:** Formula funding based on population density and provision of transit services
- **FTA Section 5309 Bus, Bus Facility, and New/ Small Starts Program:** Competitive grant program for large projects and vehicle procurements
- **FTA Section 5339 Planning, Engineering:** Funding available to assist in the planning and engineering process of selecting an appropriate modal application for a particular corridor²

In October 2011, the FTA awarded a \$900,000 grant to the City of Seattle under the 5339 program to conduct an alternatives analysis to examine the benefits, costs, and impacts of implementing an urban circulator connecting the Lower Queen Anne, Uptown, and South Lake Union neighborhoods with King Street Station and the International District Multimodal Hub. Page 3-29 of the TMP includes a map that illustrates possible alignment options; streetcar and bus modes will both be analyzed.

¹ On-going attention must be given to these funding sources to ensure the additional transit investments made by Seattle are recognized in the locally adopted funding allocation. If, for example, the City makes a speed and reliability investment in a corridor that results in a 25% gain in passenger-miles travelled, the marginal addition of Federal funds must be value-captured in ensuing years and re-invested to further TMP goals. This does not necessarily mean the money needs to pass directly to Seattle.

² The City presently has a pending application for the Center City Connector Corridor, but the TMP identified three other corridors (two potential rail, one potential BRT) that could also be applicable to this funding source.

FUNDING OPPORTUNITY DIFFERS BY MODE

The mix of potential funding sources for HCT and bus priority investments differs by mode as each has features and benefits that are attractive to different funding constituencies.

STREETCAR AND RAPID STREETCAR

Streetcar projects typically rely on a wide range of funding sources with strong variation even within different projects and phases in the same city. "Rapid streetcars" with aggressive right-of-way treatments will be stronger candidates for federal Small Starts funds than local circulators. However, the FTA has adjusted its evaluation process to make Small Starts more accessible to urban circulator projects, which would include Seattle Streetcar extensions in the Center City. Relying on local funding can avoid competition with other projects seeking federal funds or restrictions on their use. Key local sources of capital funds include local improvement districts (LIDs) and parking revenue bonds.

Chapter 3 describes the rapid streetcar mode, including a discussion of European street trams that operate more like a rapid streetcar than typical modern streetcars in the U.S.

Relative to the other modes, streetcar and rapid streetcar have high potential to attract both private and public sector funding. The evolution of the Portland Streetcar provides an example of innovative local funding for streetcar development. Portland relied on local funding sources in the three phases of its Westside Streetcar system (city parking bonds [28%], tax increment financing [21%], and a LID [19%]) and only applied for New Starts funding for the Eastside Streetcar loop scheduled to open in 2012.

BUS RAPID TRANSIT

Bus Rapid Transit projects typically rely on a greater level of federal funding than streetcar or other local bus facility projects. The split between federal, state and local dollars varies between projects, but federal funds typically make up more than half of capital costs. BRT lines in Pittsburg, Las Vegas, Kansas City, Eugene, and Cleveland have all been implemented with approximately 80% of capital funding coming from federal sources. Many BRT projects utilize FTA 5309 Bus, Bus Facility, and New/Small Starts funding—Small Starts was created specifically to fund less capital-intensive projects, such as BRT. Although most BRT projects receive substantial federal funding, selected BRT projects have been implemented almost exclusively with state and local funds:

- **Orange Line in Los Angeles** was largely funded through a countywide sales tax, although some vehicle and station capital costs funded through New Starts.
- **Silver Line in Boston (Phase 1 -Washington Street)** was built entirely with state and local funds.

There are a number of other federal sources that can be utilized for transit capital. These funds, mostly channeled through Puget Sound Regional Council in support of identified regional transportation priorities include: Federal Highway Administration flexible funding, Surface Transportation Program funds, Congestion Mitigation and Air Quality funds, Job Access Reverse Commute program funds, and FTA Section 5317 New Freedom funds. New Freedom funds targets projects and programs that overcome existing barriers facing Americans with disabilities seeking integration into the work force and full participation in society.

New Starts/Small Starts/Very Small Starts

The Federal Transit Administration's New Starts program is the federal government's primary financial resource for supporting locally planned, implemented, and operated major transit capital investments. The New Starts program funds fixed guideway transit projects including: commuter rail, light rail, heavy rail, bus rapid transit, streetcars, and ferries. New Starts projects have three phases: (1) evaluation of alternatives leading to the selection of a locally preferred alternative, (2) preliminary engineering during which design and environmental issues are addressed, and (3) final engineering during which final construction plans are developed. The process can be lengthy, taking seven to well over 10 years from initiation of an alternatives analysis (AA) to execution of a full funding agreement. Projects must have a total capital cost over \$250 million and local match requirements are 20% of that total cost; in recent years the FTA has been pushing recipients to pay closer to a 50% local match.

The Small Starts Program was established in the last federal transportation spending bill—the Safe, Accountable, Flexible, Efficient, Transportation Equity Act—A Legacy of Users (SAFETEA-LU)—for projects with smaller capital budgets. The intent of the program was to speed implementation of simpler, less capital-intensive projects. To qualify for Small Starts projects, requests must be less than \$75 million in federal funding and have a total project cost under \$250 million. The project must be a fixed guideway for at least 50% of the project length in the peak period, and/or be a corridor-based bus project with the following minimum elements:

- Substantial Transit Stations
- Signal Priority/Pre-emption (for Bus/LRT)
- Low Floor/Level Boarding Vehicles
- Special Branding of Service
- Frequent Service - 10 min peak/15 min off peak
- Service offered at least 14 hours per day

Very Small Starts provides further expedited review processes for projects that have capital budgets under \$50 million in total and less than \$3 million per mile. Projects must also meet criteria related to performances and design, such as:

- Include full transit stations
- Use signal priority/pre-emption

- Use low floor / level boarding vehicles
- Employ special branding of service
- Have frequent service levels of 10 min peak/15 min off peak
- Provide service at least 14 hours per day
- Have existing corridor ridership exceeding 3,000/day

This new category was established to foster the development of less capital-intensive transit systems, such as BRT and streetcar systems. This program is an expansion of the FTA New Starts Program, which is the capital funding program for major transit corridor infrastructure.

The New Starts and Small Starts/Very Small Starts programs should be viewed as opportunities for funding TMP HCT corridors including:

- Center City Connector Streetcar
- Loyal Heights – Ballard – Fremont – Downtown Rapid Streetcar
- Roosevelt – U-District – Downtown Rapid Streetcar
- Madison BRT line

Other Federal Capital Grants (e.g., U.S. DOT, FTA, DOE)

Federal grant programs may be available periodically to fund transit projects. The U.S. DOT/FTA TIGGER ([Transit Investments for Greenhouse Gas and Energy Reduction](#)) grant program, which expires in 2012, funded transit projects that reduce energy use. In 2011, King County Metro and the City of Seattle applied for a \$7 million TIGGER grant to close a gap in overhead trolley wire on 23rd Ave between Jackson and Madison Streets. The grant application directly supports TMP-identified projects in that corridor. The City has received other recent FTA grants, including a major grant to rehabilitate King Street Station in 2010.

Housing and Urban Development Funds

While not a traditional source of support for transportation projects, funds from the U.S. Department of Housing and Urban Development (HUD) have been used to support planning and design work on transit projects. Grants require a local match.

LOCAL FUNDING OPTIONS

Many recent capital projects in the United States have relied largely, if not solely, on local funding for construction and operations. In a number of cities around the country, avoiding complex requirements associated with federally funded construction projects has allowed for more cost effective and rapid construction and implementation of service.

The following are some of the potential local sources of funding for constructing transit projects called for in this plan. Some sources also have potential to raise operating funds.

BRIDGING THE GAP (BTG)

Created to address an increasing unfunded backlog of transportation infrastructure maintenance projects, the Phase One BTG property tax levy was passed by Seattle voters in 2006. The levy stipulated that no more than \$365 million in additional property tax revenue be used over nine years (2006-2015) to:

- Reduce the infrastructure maintenance backlog
- Pave and repair Seattle streets
- Repair seismically vulnerable bridges
- Improve pedestrian and bicycle safety (by developing and implementing components of the Pedestrian and Bicycle Master Plans) and create safe routes to schools
- Increase transit speed and reliability

The property tax increase is complemented by a commercial parking tax.

The BTG levy set funding requirements by transportation improvement category: according to the levy, no less than 67% of funding may be spent on maintenance, no less than 18% on pedestrian and bike safety projects, and no more than 15% on enhanced transit service. Over the first three years of the program (2007-2010), funding matched these targets: 73% of total revenues were spent on maintenance, 18% on pedestrian and bike safety projects, and 9% on transit projects.

Transit improvements supported by the BTG levy include 43,600 annual transit service hours, and transit-related street improvements in six high volume transit corridors.

Although the current economic downturn has caused a decline in actual revenues, BTG progress has remained on track, partly because funding has been augmented by revenues from the \$20 VLF authorized by the Seattle City Council in 2010 (for details, see sidebar for a discussion of the Seattle Transportation Benefit District).

BTG will need to be renewed by voters in 2015 to maintain the current level of investment in transit service and infrastructure.

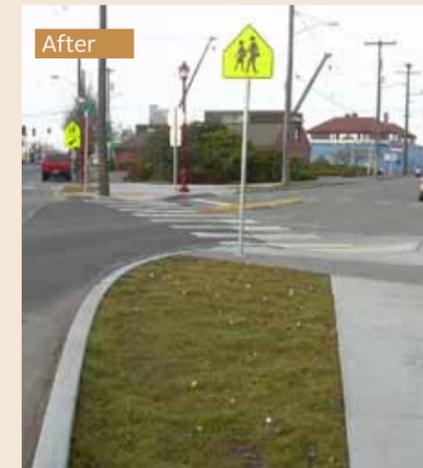
Sources: [Bridging the Gap: 2010 Annual Report](#)

Vehicle License Fees (VLF)

As a transportation benefit district, Seattle is authorized to impose up to a \$100 total annual vehicle license fee with voter approval, an additional \$80 beyond the current \$20 VLF (see the Transit Benefit District sidebar on page 6-5). In November 2011 Seattle voters rejected a \$60 annual VLF put on the ballot by the Seattle City Council. The measure would have provided approximately \$100 million for transit projects over 10 years (out of a total of over \$200 million).

Proceeds of Surplus Property

Recently, the City was able to sell a piece of surplus property known as “the rubble yard.” While infrequent, the proceeds from such opportunities could be directed to project development, environmental analysis and documentation, project design, and right-of-way acquisition. Using these sources to get HCT projects



BTG funds pedestrian safety projects that improve transit access, such as the crossing illustrated in these before and after photos along Beacon Avenue.

Images from SDOT



A local improvement district (LID) could be a key capital funding source for expanding the Seattle streetcar network.

Image from Nelson\Nygaard

Filling two gaps in trolley wire on 23rd Avenue (1.5 miles) would enable an electrified crosstown priority bus corridor between Rainier Beach and the University District. The photo shows existing wire on Rainier Avenue that would be utilized for this route (corridor 5). Chapter 3 provides a more detailed description of this and other TMP corridors.



Image from Nelson\Nygaard

to “shovel ready” status greatly enhances the City’s ability to leverage federal funding sources.

Local Improvement Districts (LIDs)

A local improvement district is a geographic area in which real property is taxed to defray all or part of the costs of a public improvement. The distinctive feature of a special assessment is that its costs are apportioned according to the estimated benefit that will accrue to each property. In Washington, LIDs are governed by Chapter 35.43 of the Revised Code of Washington (RCW). It is within the local jurisdiction’s discretion to determine the benefits and benefit area of a project financed by a local improvement district.

The basic principle of a LID is that it creates an assessment charge for those property owners who receive special benefits from an improvement beyond the general benefits received by all residents of the community.

For example, the expansion of the Seattle streetcar network is anticipated to lead to positive changes in property values along the new lines. Increased property valuation is expected from the enhancement of the local transportation network, connections with regional transit systems, improved neighborhood economics and livability, and increased property exposure and demand. These expected increases in property value can garner private sector support for the formation of a LID.

Value capture through tax increment financing, a tool used commonly to fund rail capital in other cities, is not legal in Washington State.

LIDs should be a primary consideration for developing financing programs for the HCT projects in the TMP.

General Obligation Bonds

Bonds are a primary source of funds for constructing capital improvement projects. Voter-approved bonds are sold to fund street and other transportation projects. Transportation projects can be grouped in “bond packages” which go before the public for voter approval, or are issued separately. General obligation bonds can be supported through the city’s property tax base or through the transit district’s tax base. Bonds can be backed with

SEATTLE TRANSPORTATION BENEFIT DISTRICT: VEHICLE LICENSE FEES

Transportation benefit districts were created through a 2005 Washington State Legislature statute as a way for local agencies and governments to fund transportation-related improvements. The legislation authorizes the use of various taxes and fees to fund transportation improvements within the district. It allows funding for operation of facilities and programs, including public transportation.

Funding sources that may be used without voter approval include an up to a \$20 annual vehicle license fee (VLF) and a transportation impact fee on commercial and industrial buildings. Subject to voter approval, the following additional revenue sources are available:

- Property taxes (one-year excess levy or an excess levy for capital purposes)
- Sales and use tax (up to 0.2%)
- Annual VLF of up to an additional \$80 (\$100 total) per vehicle registered in the district
- Vehicle tolls

The legislation also authorizes a district to form a local improvement district (LID) to help fund a specific transportation improvement. The district can impose a special assessment within the LID and issue bonds to help fund the improvement.

In 2010, the Seattle City Council authorized the creation of a transportation benefit district in the city of Seattle under this state authority. In May 2011, the City Council enacted a \$20 annual VLF (voter approval was not required). The VLF was expected to raise \$4.4 million in 2011 and \$6.8 million in 2012. These revenues have been budgeted to support SDOT for a variety of transportation-related programs and projects, such as bridge maintenance, intersection improvements, street maintenance, and bicycle and pedestrian improvements.*

In November 2011, Seattle voters rejected a \$60 VLF measure that was expected to raise \$204 million for transportation projects and programs in the City over 10 years.

Notes: * In June 2011, the Citizens Transportation Advisory Committee III (CTAC III), a semi-governmental advisory group appointed by the Mayor and City Council to recommend new approaches for transportation funding in Seattle, recommended that the \$20 VLF be maintained through at least 2013.

Sources: <http://apps.leg.wa.gov/rcw/default.aspx?cite=36.73> and <http://www.seattle.gov/stbd/>

LEVERAGING DEVELOPMENT RIGHTS

Various cities, including Seattle, have used transit facility development to leverage private investment. In some cases, this investment has stimulated redevelopment along the corridor, increasing transit ridership and fare revenues as well as expanding the tax base. In other cases, development rights associated with specific properties, including transportation maintenance facilities, expressly served as the mechanism to fund transit projects. For example:

- **In Portland**, 10 years after the south portion of its Transit Mall was completed in 1978, every dollar of original capital cost was responsible for \$30-\$50 of public and private nearby redevelopment. (1) In 2004, Bechtel Corporation constructed the Red Line light rail service to the Portland International Airport in exchange for development rights on a large land area near the airport, now the Cascade Station retail development.
- **In Washington, D.C.**, a 2011 study by the Washington Metro Area Transportation Authority (WMATA) showed that \$235 billion in property value is located within 800 meters of Metrorail stations in the Washington D.C. metro area. This land accounts for only 4% of regional land area, but 28% of the region’s property tax revenue. The WMATA estimates that proximity to Metrorail stations increases property values between 7% and 9%. (2)
- **In Vancouver, B.C.**, a recent analysis found that vacancy of office space with direct access (within 0.5 km) to Rapid Transit Stations is less than half the rate for the rest of the office space market. (3)
- **In Seattle**, the maintenance base for the South Lake Union streetcar is on a 32,000 square foot site with 9,000 square feet of usable space in the maintenance facility building, including 2,000 square feet of space located on a second level. An analysis conducted for the City of Seattle analyzed development potential for both commercial and residential development and concluded that selling residential development rights would have the highest yield, between \$2.7 to \$3.4 million. (4) The city plans to sell air rights and surplus property at the facility once the real estate market recovers.

Sources: (1) <http://trimet.org/about/history/portlandmall.htm>. (2) WMATA, “Transit Ridership Trends and Markets,” 2009. (3) Jones, Lang, LaSalle (2011). Rapid Transit Office Index, /On-Point/ Canadian Research. p. I. (4) South Lake Union Capital Financing and Operating and Maintenance Plan, April 2005.



The South Lake Union streetcar maintenance base is shown above, outlined in red.

Source: Google Maps

incremental increases in universally applied city taxes, such as those on sales and property.

Bonding is a tool typically used for high-cost capital projects, such as rail lines. In the context of the TMP, it may be most appropriate to support HCT projects.

Other Local Sources of Capital Funding

Other local options for funding capital improvements not currently being utilized by the City of Seattle include:

- **Chapter 35.95.040 RCW:** Authorizes cities to levy an excise tax (further defined in Chapter 82.04 RCW) with a cap of an equivalent of \$1 per month per household. In Seattle, this could generate up to \$3 million per year.
- **Chapter 35.95A RCW:** Authorizes cities to establish an authority to construct and operate fixed guideway systems that are not “light rail.” From the RCW, this “means a transportation system that utilizes train cars running on a guideway, together with the necessary passenger stations, terminals, parking facilities, related facilities or other properties, and facilities necessary and appropriate for passenger and vehicular access to and from people-moving systems, not including fixed guideway light rail systems.” Funding for

these “fixed guideway” systems is authorized with a 2.5% motor vehicle excise tax, a vehicle license fee up to \$100 per vehicle and a property tax levy up to \$1 per thousand of assessed value. This refers to the now dormant monorail authority. Establishing the authority and its taxing authority requires a public vote. This must be investigated further, but it is possible that a rapid streetcar has enough uniquely distinguishing features that could allow it to be defined as something other than a light rail system.

Joint Development and Sale of Land or Development Rights

Joint development (in conjunction with transit facilities), land sales, or sale of development rights above transit maintenance bases are often used as part of capital funding packages. Encouraging development along a transit line helps increase ridership and fare revenue, and lease or sale proceeds can be used to develop a revenue stream for transit operations.

This source can lead to significant financing leverage, but is highly situational and requires detailed exploration at the project level.

STRATEGY AREA: FUNDING CAPITAL INVESTMENTS

- CI-1:** Focus investments where they maximize efficiency.
- CI-2:** Establish or expand staff responsibilities for development of new transit funding opportunities.
- CI-3:** Leverage opportunities to enhance transit capital investments through closely coordinated capital projects and funding development opportunities with Metro and Sound Transit. Ensure transit capital development program staffing is sufficient to take full advantage of available capital funds.
- CI-4:** Actively pursue opportunities for use of non-dedicated city funds, such as proceeds of surplus property sales, to advance corridor development, environmental, design, and right of way acquisition for HCT corridor projects to bring them to construction ready status.
- CI-5:** Work closely with Metro to capture and reinvest in the FTN operating cost savings that accrue as a result of capital projects funded by the City.
- CI-6:** Link transit capital investments directly to the land use goals they are intended to support. This will be crucial to make City projects competitive at the Federal level.
- CI-7:** Foster a cooperative relationship with all granting and regional transit agencies to better coordinate capital funding requests, particularly for transit electrification projects, at the state and federal level.
- CI-8:** Support expanded funding mechanisms for the City, such as new funding authority for Transportation Benefit Districts.
- CI-9:** Develop an ongoing and stable source of revenue to support transit capital and operations in the city of Seattle.

FUNDING TRANSIT OPERATIONS

Transit operations include on-going expenses, such as operator and administrative labor, fuel/energy costs, and basic vehicle maintenance. In contrast to capital funding, transit operations in urban areas receives limited federal support and is largely financed through local sources. In Seattle, the primary local financing mechanism for transit operations is a local option sales tax, which comprises 62% of King County Metro Transit’s operating revenues. In response to recent declines in revenue, Metro and

other transit agencies have instituted service reductions and fare increases. Seattle voters have also passed several recent initiatives to fund specific capital projects and service improvements through increases in dedicated transit sales taxes. Declines in sales tax receipts have extended implementation timelines and/or decreased the scope of planned transit service enhancements.

COST TO OPERATE NEW TRANSIT SERVICE IN PRIORITY CORRIDORS

The primary benefit of HCT services proposed in the TMP is a significantly lower operating cost per passenger and per passenger mile. Nevertheless, operating the HCT corridors will require new resources, particularly where the alignments do not provide an opportunity to replace existing bus service.

HCT service in all five corridors is in the range of \$25-\$35 million per year. Note that these cost estimates do not include cost savings from changes to existing routes, which may represent up to 33% of the total annual operating cost for all HCT corridors. The ability to reinvest current bus operating dollars varies significantly from corridor to corridor. For example, the Madison corridor could be operated with redeployment of existing bus service resulting in little to no new operating costs. The Loyal Heights – Ballard – Fremont – Downtown corridor, on the other hand, could require significant new operating resources.

Figure 6-3 shows the projected annual cost of operating the preferred mode for new and improved transit service in each corridor recommended for HCT service. (For the Center City Connector, the table lists higher operating cost of the two alternatives). Operating costs range from about \$4 million to \$9 million annually for each corridor. The projected total cost to operate new

FIGURE 6-3 ESTIMATED ANNUAL OPERATING COST FOR HCT OPTIONS

HCT Corridor	Corridor Description	Mode *	Annual Operating Cost (2011)**
6	Colman Dock to 23rd Ave via Madison	BRT	\$4.6M
8	Roosevelt-U-District-Downtown via Eastlake Ave	Rail	\$8.9M
11	Loyal Heights-Ballard-Fremont-South Lake Union-Downtown	Rail	\$9.1M
CC1/CC2	Center City Connector: Lower Queen Anne-King Street Station via 1st Ave or South Lake Union-Westlake-King Street Station	Rail	\$5.1M †
Total Annual Operating Cost for all HCT Corridors			\$27.8M

* Multiple modes were evaluated for each corridor, but the operating cost for the preferred mode is highlighted here.
 ** Annual Cost shown does not include projected operating cost savings for changes to existing routes, which may be up to 33% of total annual operating costs for all corridors.
 † The City has applied for federal funding to conduct an Alternatives Analysis (AA) of the proposed Center City Connector corridors. The highest operating cost is included in the table and assumes that only one of the corridors would be constructed.

SOUND TRANSIT FUNDING

Although Sound Transit operates express bus, commuter rail, and light rail service around the Puget Sound region, the hub of the current and planned Link light rail system is downtown Seattle. Sound Transit's tri-county transit system was established with voter approval of the "Sound Move" ten-year regional transit package in 1996. The "Sound Move" ballot measure authorized a 0.4% sales tax and 0.3% motor vehicle excise tax levied within the Sound Transit District to fund the initial bus, commuter rail, and light rail transit projects.* Sound Transit 2 (ST2) was approved by voters in 2008. It includes a sales tax increase (0.5%) on purchases made within the Sound Transit District and was projected at the time to raise approximately \$18 billion in local funds from 2008 to 2023.

Sound Transit's 2011 Adopted Budget of approximately \$1.1 billion is supported by roughly \$844 million in revenues collected within the Sound Transit District: a 0.9% retail sales and use tax (about 64% of total revenue), a 0.3% motor vehicle excise tax (about 7% of revenue), a 0.8% rental car tax (about 0.2% of revenue), farebox revenues (about 5% of revenue), interest earnings (about 1% of revenue), and miscellaneous revenue (about 2% of revenue). Remaining revenues come from federal grants.

* <http://www.soundtransit.org/Documents/pdf/about/Chronology.pdf>



The TMP proposes using 2nd and 4th Avenues downtown for regional buses, including those operated by Sound Transit, and streamlined regional bus access to I-5 from north of downtown.

Image from Nelson\Nygaard

KING COUNTY METRO TRANSIT OPERATING FUNDING

King County Metro Transit operates bus service to, from, and within the City of Seattle. The agency's 2011 operating budget of \$548.8 million is funded by the following sources: approximately 61% comes from a share of the retail sales tax collected in the service area (about \$337.1 million) and 23.6% comes from ridership revenue (about \$129.5 million); remaining revenues are collected from other operations revenue (3.1%), property tax revenues originally dedicated to King County ferry services (3.4%), and other funds. In 2012 and 2013 this funding source will be supplemented by a "Congestion Reduction Charge" of a \$20 vehicle license fee levied on each vehicle licensed in King County for each of the next two years. The fee is projected to generate approximately \$25 million per year to supplement Metro's other revenue sources.



RapidRide is funded by sales taxes under the voter-approved TransitNow program.

Image from Nelson\Nygaard



Sponsorship of streetcar stops and vehicles is a modest, but viable, source for future streetcar and HCT system expansion.

Image from Nelson\Nygaard

OPERATIONS FUNDING OPTIONS

FEDERAL FUNDING FOR OPERATIONS

Federal transit funding directed to urban areas is primarily for capital projects. However, several federal funding programs have potential application for funding elements of transit operations commonly considered operations, such as vehicle preventative maintenance.

FTA 5307: Seattle receives money from these programs for maintenance of the Monorail and Streetcar, which the FTA considers to be operations. These funds are allocated by the Puget Sound Regional Council (PSRC) using a formula based on the percentage of transit trips served. A small share (less than 10%) of Seattle Streetcar operating revenues are derived from federal grants for preventive maintenance.

Congestion Mitigation and Air Quality (CMAQ) Program:

Funds under this program are limited to three years of operating support.

LOCAL AND REGIONAL FUNDING OPTIONS

Regional Transit Agency Contributions

To the extent a new transit service overlays or replaces existing or planned future services, some portion of the operating cost can be transferred from the bus service that it replaces. Seattle already receives regional support to operate the South Lake Union Streetcar. In 2010, King County Metro assumed responsibility for 75% of streetcar operating costs.¹

Operating Endowment

One-time revenues (such as from land sales) or regular revenue streams (such as from the sale of naming rights or leases) can be used to create a fund that contributes to transit operating costs. Seattle established a South Lake Union Streetcar Operating Fund, to consist of both public and private sources. The city loaned

¹ Seattle 2010 Proposed Budget; Draft Memorandum of Understanding, South Lake Union Streetcar Financing, <http://www.cityofseattle.net/transportation/docs/slu-18FINAL%20Financing%20Appendix%20C.pdf>.

STRATEGY AREA: FUNDING OPERATION OF SERVICES

OS-1: Operating supplements should be used to bring parts of the FTN up to frequency and span of service targets established in Chapter 4. This may mean supplementing operations on routes where Metro Service Guidelines suggest a lower level of service or where Metro has insufficient funding to address all gaps between service standards and actual service levels.

OS-2: Operating supplements may need to be used to protect FTN service standards and/or to ensure continued availability of local network service to Seattle residents if Metro is forced to reduce service due to financial distress.

OS-3: The City should consider the most cost-effective use of operating supplements, including evaluating use of alternative service methods and providers.

OS-4: The City should coordinate with Metro to establish a policy for providing alternative mobility services where standard fixed route operations are not productive.

OS-5: The City should establish a cap on subsidy for alternative services. A suggested guideline is that the amount of funds used to support alternative strategies is no more than 5% of the City's total investment in transit in any given year.

OS-6: The City should do early outreach with the private sector and public agency partners to develop sustainable operating finance plans for streetcar and rapid streetcar system expansion.

OS-7: The City should consider changes to its sign code to allow opportunity for private funding for transit and bike share through station sponsorships.

initial operating funds, which will be repaid from sponsorship revenue over time.

Naming Rights/Sponsorships

A number of streetcar and bus circulators have expanded upon traditional transit advertising revenues by allowing sponsorship of different elements of the system. While advertising is a traditional funding source for regional transit agencies, they have not made as extensive use of sponsorships and more innovative private funding opportunities as city-owned streetcar or circulator systems. Seattle's South Lake Union Streetcar sponsor names are featured at stops and on individual streetcars. Sponsorship revenues were about \$500,000 annually in 2008 and 2009.



Bus bulbs are a capital improvement that can help meet multiple TMP performance measures: they improve speed/reliability by allowing buses to stop in the travel lane to board passengers and provide additional right-of-way to construct shelters and allow passengers to wait outside of the sidewalk zone.

Image from Nelson\Nygaard

POTENTIAL LOCAL AND REGIONAL FUNDING OPTIONS FOR CAPITAL OR OPERATIONS

New and innovative sources will be needed to realize TMP goals and deliver all the projects and improvements included in the Plan. This section describes potential new funding sources that include: local funds generated within the Seattle Transportation Benefit District (governed by the Seattle City Council), transit impact fees, and regional funding options requiring legislative authorization and voter approval.

LOCAL FUNDING OPTIONS

GENERAL FUND REVENUE

The City may opt to dedicate a share of City general fund resources to fund transit service or capital improvements. Because capital improvements are typically easier to finance through state and federal grants and/or regional funding packages, the City may choose to dedicate any available general fund revenues to transit operations.

PARKING METER REVENUE

Parking meter revenue is a source of local revenue to consider using to support capital improvements in the TMP, and/or operation of expanded service in TMP priority corridors. Other cities, such as San Francisco and Portland, have found it easier to build support for extending metering to new hours and/or

new areas, and transitioning to demand-based parking pricing if a portion of meter revenues are dedicated to access and mobility improvements in the same neighborhood or business district in which they are collected.

TOLLING LOCAL STREETS AND ROADWAYS WITHIN THE TRANSPORTATION BENEFIT DISTRICT

The Seattle City Council, acting as the Board of Directors of the Seattle Transportation Benefit District, has state authority to seek voter approval to levy tolls on any non-state highway in the City to support transit and other transportation improvements in the City. In 2011, the Council opted to pursue voter approval of a \$60 Vehicle License Fee, reserving its tolling authority for future use (for more on this package see “Seattle Transportation Benefit District” on page 6-5.).

REGIONAL FUNDING OPTIONS

Sound Transit is proceeding with implementation of Link Light Rail, Sounder Commuter Rail extensions, and ST Express Bus facilities and service expansion as authorized by regional voter approval of ST2 in 2008. However, there are many high priority transit projects in the regional transportation plan (Transportation 2040) that do not, as yet, have full funding from federal, state, regional or local sources. To expedite completion of the highest priority regional, access and mobility projects, including some of the HCT and Priority Bus Corridor projects in this plan, regional leaders may seek new legislative authority to put another regional transportation funding package before voters in the Central

Puget Sound Region. Potential sources of revenue for a regional transportation funding package include:

- Tolls (corridor tolls, congestion pricing, or cordon tolls)
- Off-street parking fees
- Vehicle miles traveled fees or tolls
- Local option sales tax on gas
- Development fees based on the number of new vehicle trips generated by new projects

All of these sources would require legislative approval to be levied at the local, regional, or state level as a source of funding for transit (see Funding Sources Requiring Legislative Approval). As new funding sources, or by way of expansion of existing regional authority, these sources could fund and/or finance construction and operation of FTN services.

TOLLING STATE HIGHWAYS

Market-based road pricing can contribute to transit operating cost and has two primary benefits for transit operations:

1. Pricing revenues can be used to fund increased levels of transit service.
2. Alleviating congestion reduces transit travel times and operating cost, increasing the buying power of existing operating revenues.

These benefits have been demonstrated internationally (e.g., London) but have not yet been applied on a wide scale in the U.S. The Seattle Variable Tolling Study identified variable tolling as a potential transit revenue source.¹

There are currently two tolled facilities in Washington State (SR-16 Tacoma Narrows Bridge, and the SR-167 HOT Lane), but in neither case are toll revenues dedicated to fund transit service.

Toll revenues have been used to fund transit operations in other states, including New York and California, where state law requires nearly 60% of toll revenue in the I-15 corridor in San Diego County to be used for transit service in the same corridor.

In particular, Seattle could push for changes in state law to allow for some portion of revenue from upcoming toll collection on SR 99, SR 520, and possible future toll collection on I-5 and I-90 to be used to fund transit operations. Strengthening affordable regional transit in conjunction with toll projects helps reduce impacts of tolling on low-income travelers.²

OFF-STREET PARKING FEES

In addition to the commercial parking tax, the City may seek legislative authority to levy a graduated, per-space fee on private off-street parking spaces associated with commercial and mixed-use development with revenues dedicated to funding transit and other multimodal transportation improvements. To ease the

¹ <http://www.cityofseattle.net/transportation/docs/FINAL%20Tolling%20Study%20report%20revised%206.25.10.pdf>

² <http://apps.leg.wa.gov/rcw/default.aspx?cite=47.56.820>

burden of the new fee and encourage priced parking, the fee might be structured to permit a full or partial exemption for any employer and/or property owner who charges market rates for parking, or otherwise passes on the full cost of owning, maintaining, and operating parking facilities to users.³

LOCAL-OPTION SALES TAX ON GAS

Fuel taxes are an important source of revenue for transit in many states. Gas taxes have multiple benefits of (1) raising a substantial amount of revenue, (2) encouraging transit ridership by raising the out-of-pocket cost of each additional mile driven, and (3) rewarding drivers that reduce pollutant emissions by driving less and using more fuel-efficient vehicles. The Washington state Constitution restricts the use of gas tax revenue to the construction and maintenance of roads, so a straight gas tax is not a viable funding option for the TMP. The sale of gas is also exempted from local sales and use taxes in Washington State. However, the City and other interested partners may advocate for the legislature to remove this exemption to permit local governments and/or regional agencies to levy a sales tax on gas (if it is not done state-wide) at current rates. If this is done, the local, regional, or state taxing authority may dedicate a share of sales taxes collected on gas to transit capital improvements and transit operations. From a driver's perspective, application of the sales tax to gasoline would be comparable to increasing the gas tax or other components of the variable cost of fuel.

VEHICLE MILES TRAVELED (VMT) OR CARBON TAX

Both of these tax sources are under careful study at the state and federal levels as future funding sources for transportation projects and programs including transit. In both cases, there is attention being given to the potential for local jurisdictions to also utilize new revenue to fund local transportation projects or services. At the federal level, it seems less likely a fee based only on how many miles are driven will be implemented, although VMT may be a part of the taxing formula. Appearing more likely is a tax that is based on use of carbon. The debate on how to rescue the Federal Highway Trust Fund and how much to expend on transit and non-motorized transportation could take years to resolve. The City should continue to monitor federal, state, and regional actions relative to these new funding sources.

IMPACT FEES

Transit Impact Fees

The City may establish a transit impact fee to capture the cost of providing transit facilities and service to meet the need for access and mobility generated by new development. Levying such a fee would require completing a study establishing an essential

³ Any fee should be assessed to property-owners and/or employers on a graduated basis that is inversely proportional to the amount they charge for parking, or the amount they currently offer to commuters as a cash alternative to parking (“parking cashout”). Such a fee would be graduated so that property owners would be exempted if (a) they or their tenants charge a per-space user fee for parking, or (b) they unbundle parking from the lease of commercial space and all tenants certify that they pass the full-cost of parking on to their employees, or offer all of their employees the option of taking cash in-lieu of a parking subsidy.

nexus between the fee and the public costs of accommodating the additional transit trips generated by the development or the impacts of those trips on transit operations. This may require modifications to State Environmental Policy Act (SEPA) or Growth Management Act (GMA) rules.

Multimodal Transportation Impact Mitigation Fees

As a complement or alternative to transit impact fees, the City may work with other local government partners to secure legislative authorization to enact a multimodal transportation impact mitigation fee based on the number of automobile trips generated by new development (this would require a change to State Environmental Policy Act (SEPA) rules for the definition and mitigation of environmental impacts of development projects. To levy a fee on auto trip generation, the City would have to complete a study establishing an essential nexus between the proposed use of fee revenue and the environmental impact of auto trips generated (demonstrating how investments in transportation demand management, transit, and other multimodal transportation projects and programs would reduce vehicle trips, effectively mitigating the projected impact of the new project).

SAN FRANCISCO TRANSIT IMPACT FEE & PROPOSED AUTO TRIPS GENERATED (ATG) FEE

San Francisco's Transit Impact Development Fee (TIDF) assesses a fee on all non-residential development in the city, recognizing transit's role and added value in serving development. The fee is two-tiered currently \$9.07 or \$11.34 per square foot (indexed for inflation), based on the level of transit demand attributable to each of the six land use categories defined in the ordinance. The TIDF generates a modest amount of revenue to fund transit service improvements—slightly over \$2 million collected in 2008 and nearly \$120 million in fees and earned interest between 1981 and 2008.

The San Francisco County Transportation Authority recently studied the option to implement a similar impact mitigation fee on ATG by new development, payment of which would permit development projects to fully mitigate the air quality impacts of their project (avoiding the need for further environmental analysis), while providing the County with funding to implement a package of multimodal transportation investments, including transit projects designed to reduce vehicle trips.

Source: Auto Trip Generation Study: Final Report, San Francisco County Transportation Authority, October, 2008

STRATEGY AREA: DEVELOPMENT OF NEW FUNDING SOURCES

- NFS-1:** Work at the state level to develop new sources of funding for King County Metro. There may be opportunities within new legislation to leverage City funds as part of Metro's total investment package.
- NFS-2:** Advocate to ensure new state revenue sources are not constrained to roadway development, operations, and maintenance. The state legislature will begin discussions in the 2012 session on Transportation Revenue Enhancement. A major focus will be on funding state initiatives, but local jurisdictions are advocating for new funding opportunities at the local level.
- NFS-3:** Look for opportunities to run pilot tolling programs as a way to continue development of tolling as a new revenue source.
- NFS-4:** Use the SR 99 Tolling Committee process as a forum to consider broader uses of toll revenues and consider tolling as a transportation management as well as a capital finance tool.
- NFS-5:** Push for changes in State law to allow a share of revenue from upcoming toll collection on SR 99, SR 520, and possible future toll collection on I-5 and I-90 to be used to fund transit operations.
- NFS-6:** Look for opportunities to create public-private partnerships to support the development of the HCT corridors.
- NFS-7:** Consider dedicating a share of meter revenues collected within each of the frequent transit corridors identified in the TMP to transit capital improvements and/or operations within the same corridor.
- NFS-8:** Evaluate the revenue potential of Transit Impact Fees and Multimodal Transportation Impact Mitigation Fees on new development and conduct a nexus study to determine if warranted.
- NFS-9:** Collaborate with other local and regional agency stakeholders to seek legislative approval to permit local governments and/or regional agencies to levy a sales tax on gas with eligibility to spend revenue on transit projects and services.



Revenue from toll collection is a potential new funding source for transit operations, but would require changes in state law.

Image from WSDOT



A share of parking meter revenues collected within a frequent transit corridor could be used to fund capital improvements and/or operations within the same corridor.

Image from SDOT

PERFORMANCE MONITORING

The Seattle Transit Plan (2005) was developed in support of the Urban Village strategy adopted in the Seattle Comprehensive Plan. The priority network of transit routes developed in the Seattle Transit Plan has been revised, improved, and replaced by the Frequent Transit Network in the Transit Master Plan. Part of the previous plan was the Urban Village Transit Network monitoring program, a complex monitoring and evaluation methodology designed to track progress and to identify gaps in the network. This work was an important foundational effort for the City, but, in practice, the monitoring program has been cumbersome and fallen behind due to challenges collecting and evaluating data on a regular basis. Further, the complexity of the scoring mechanism has been such that public interest and transparency is low. Given resource constraints, the monitoring report has not been a high priority for SDOT in recent years. This suggests the usefulness of the tool has run its course and that it is time to re-evaluate how the City monitors and measures transit system effectiveness,

progress toward investments identified in the TMP, and weaknesses or gaps that require City or partner agency action.

The newly adopted King County Metro Strategic Plan has established a network evaluation and operating performance standards system, which will be employed on a regular basis. The operating performance evaluation is based on a set of corridors, which correspond with the FTN corridors in the TMP. Metro performance standards relate to ridership, on-time performance, headway management, and productivity. A route-level report is published every quarter with about a one quarter lag. In terms of network design and effectiveness, measures, such as percentage of population within reach of high frequency service, percentage of vulnerable populations within reach of high frequency service, and percentage of jobs within reach of high frequency service have been established. In addition, standards for “service families” that establish the span of service by time period and the frequency required in that time period have been adopted, as have evaluation tools that identify gaps between standards and actual service levels. The Metro network evaluation report will be published every two years.

STRATEGY AREA: PERFORMANCE MONITORING MEASURES

PM-1: City monitoring of performance on the FTN should take advantage of Metro’s performance monitoring and evaluation system to track performance and progress of the FTN and avoid overlapping or duplicative monitoring efforts. The Metro performance monitoring data should be supported with additional TMP monitoring as described below. A table showing how the measures interact is included in Figure 6-4.

PM-2: Measure progress in improving access between neighborhoods through transit access and travel time improvements, and in units of time saved for each transit person trip. This would be measured by travel and access times for transit trips between urban centers and villages, compiled annually. Access time is the amount of time required to reach and wait for a transit vehicle; wait time is reduced by improvements to frequency. The total time would be divided by corridor ridership.

PM-3: Measure progress on transit mode split by FTN corridor. This would be stated as the ratio of transit ridership to vehicle average daily trip (ADT) at two or more locations on each corridor in the FTN and compared over time.

PM-4: Ensure transit and bicycle modal investments are working together to increase the share of both modes. This would be measured by comparing bicycle volumes to transit ridership counts at strategic locations on each

corridor in the FTN This would require installation of permanent bicycle counting systems at several locations throughout the city.

PM-5: Measure capital investment per transit person trip and establish a historical trace of investment efficiency. For each FTN corridor, divide corridor capital investment (Metro, Sound Transit, plus Seattle) by corridor ridership, compiled annually.

PM-6: Measure the effectiveness of City of Seattle transit operating investments. For each corridor in the FTN divide Seattle’s operating investment by corridor ridership, compiled annually, and compared over time.

PM-7: Measure TMP Implementation Progress:

- Three Priority Bus Corridors implemented every 2 years
- Ballard/Fremont HCT corridor implemented in 5 to 8 years
- City Center Connector implemented in 4 to 6 years
- Eastlake University District HCT corridor implemented in 15 years or less
- Madison HCT corridor opened in conjunction with the new Alaskan Way roadway (following Viaduct demolition)

The strength of this measurement tool should be used to evaluate the performance of the Seattle FTN. However, as robust as this monitoring and evaluation tool is, it does not directly address Seattle’s mobility goals. It is suggested, that, as with transit investment, the monitoring of Seattle’s transit network take on a more supplemental approach rather than a global evaluation that would duplicate Metro’s performance monitoring system. What is missing from Metro’s evaluation are measures of connectivity and effectiveness with regard to improving transit mode competitiveness and quality of connections with other modes.

Seattle’s monitoring and evaluation should focus on measures directly designed to assess progress on Seattle’s goals that are not measured by Metro. The recommended monitoring system suggests that measures be established that clearly evaluate effectiveness in terms of the number of transit trips benefitted. Ideally, the monitoring system would yield information that indicates which investment was more effective in terms of supporting additional transit ridership. Further, the monitoring system recommends measures which track progress of implementing the FTN.

FIGURE 6-4 RELATIONSHIP BETWEEN TMP AND KING COUNTY METRO PERFORMANCE MONITORING

TMP Performance Monitoring Need	King County Metro Performance Monitoring System	Seattle TMP Performance Monitoring
Put the Passenger First <ul style="list-style-type: none"> • Make transit easy to use • Create a safe environment for transit passengers • Make transit universally accessible • Make transit comfortable • Transit responsive to the needs of people for whom transit is a necessity (e.g., transit-dependent individuals, youth, seniors, people with disabilities, low income populations) 	Metro Measures produced at Seattle level. <ul style="list-style-type: none"> • All public transportation ridership in King County (rail, bus, paratransit, rideshare) • Population within ¼-mile walk access to a transit stop or 2-mile drive to a park-and-ride • % low income population within ¼-mile walk access to transit • % minority population within ¼-mile walk access to transit • Transit mode share by market 	<ul style="list-style-type: none"> • TMP Implementation Progress <p><i>Note that many of the elements are incorporated through the integrated design standards for the FTN. Measuring implementation progress will also measure progress in this policy area.</i></p>
Make Transit a Convenient Choice for Travel <ul style="list-style-type: none"> • Provide mobility to a wide range of destinations • Facilitate fast and reliable operations • Increase ridership by integrating other modes and making access safe and easy • Invest in infrastructure where it can attract the most users 	<ul style="list-style-type: none"> • % population at 15 dwelling units per acre within ¼-mile walk access of frequent service • On-time performance or headway maintenance by time of day • Load factor • Service hours and service hour change per route • Ridership and ridership change per Route • Boardings per revenue hour • Passenger miles per revenue mile 	<ul style="list-style-type: none"> • Travel and access times for transit trips between urban centers and villages
Use Transit to Build Healthy Communities <ul style="list-style-type: none"> • Make transit facilities central to community gathering places • Increase walking and bicycling to support increased physical activity and improve health outcomes • Seamlessly integrate transit, urban development, and the public realm • Provide access to daily needs and services on foot, by bicycle, or on transit • Employ best practices in transit-oriented design 	<ul style="list-style-type: none"> • Centers ridership • Transit rides per capita • Peak mode share at Commute Trip Reduction sites 	<ul style="list-style-type: none"> • Ratio of transit ridership to Vehicle ADT • Bicycle volume compared to transit ridership
Improve Transit Service and Quality Through Partnerships <ul style="list-style-type: none"> • Optimize regional transit service investments • Work with neighboring jurisdictions where transit markets cross borders • Collaborate and share assets • Build political alliances 	<ul style="list-style-type: none"> • Cost per boarding • Asset condition assessment indicators 	<ul style="list-style-type: none"> • Total capital investment per transit person trip in FTN • Seattle’s operating investment by FTN corridor divided by ridership • TMP Implementation Progress
Reduce Environmental Impacts of Personal Mobility <ul style="list-style-type: none"> • Use transit to meet environmental targets • Use energy responsibly • Consider lifecycle costs of transit infrastructure 	<ul style="list-style-type: none"> • Public transportation energy use per passenger mile • Per capita vehicle miles traveled • Transit mode share 	<ul style="list-style-type: none"> • Implementation of TMP priorities for Electric Trolley Bus system expansion