



# Central Puget Sound Regional Transit Authority

2016 Financial Plan (June 2016)

# **CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY**

# 2016 FINAL FINANCIAL PLAN (June 2016)

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### **EXECUTIVE SUMMARY**

The Central Puget Sound Regional Transit Authority's *Financial Plan* represents Sound Transit's longrange strategic plan updated annually to verify and confirm the sufficiency of funding available to construct, operate and maintain transit programs approved by voters in 1996 (*Sound Move*) and 2008 (*ST2*).

Although the "Great Recession" has ended, its impact on the agency continues as long range tax revenues are currently estimated at \$4.1 billion, or 26 percent, below the 15-year financial forecast included in the 2008 voter-approved plan. Due to this decline in forecast revenue, it is no longer possible to complete all ST2 programs by 2023, as was originally contemplated in the plan approved by voters.

The Board of Directors has comprehensively reviewed the agency's capital and operating plans in light of the projected revenue shortfall. This review resulted in a revised capital expansion program in which funding for certain programs has been delayed, reduced or suspended. This *Program Realignment* is fully reflected in the agency's 2016 Financial Plan.

In January 2015 Sound Transit executed a \$1.3 billion federal loan under the Transportation Infrastructure Finance and Innovation Act (TIFIA). This is the largest single TIFIA loan to a transit agency in the country and the second largest TIFIA loan overall, and at the lowest rate - 2.38 percent - in the 25-year history of the program.

In August 2015, Sound Transit executed the sale of nearly \$1 billion of green bonds that will help fund voterapproved regional transit projects, including construction of more than 30 miles of light rail extensions. The sale represents the world's largest municipal sale of green bonds, which are a rising trend in the financial industry that offers the ability to invest in bonds that advance environmental sustainability

This bond sale generated approximately \$600 million in new proceeds to fund voter-approved transit expansions and refinance \$398 million of previously issued bonds with higher interest rates, generating present value saving of over \$30 million. The sale included fixed-rate bonds at a total interest cost of 3.88% and approximately \$150 million in variable rate bonds. In issuing the new bonds, Sound Transit's ratings from Standard and Poor's and Moody's remained unchanged at AAA/Aa2.

#### **Financial Policies**

Sound Transit's *Financial Plan* is based on several underlying policies adopted initially as part of *Sound Move* and subsequently amended by the Board of Directors in July, 2008. These policies preserve the principle of subarea equity, whereby expenditures benefiting a given subarea are commensurate with tax revenues contributed by that subarea.

**Distributing Revenues Equitably:** Subarea equity is defined as utilizing local tax revenues for transportation programs and services that benefit the residents and businesses of a subarea generally in proportion to the level of revenues contributed by that subarea. Subareas may fund projects outside their geographic boundary only when the project benefits the residents and businesses of the funding subarea. For more detailed revenue and expenditure information, see Appendix "A".

**Financial Management:** Sound Transit maintains policies governing debt, investment management, risk management, state-of-good repair/replacement, fares, and operating expenses to ensure effective utilization and deployment of voter-approved tax revenues.

Key financial policies are as follows:

- Minimum agency wide net debt service coverage ratio of 1.5 or greater in any year;
- Maintain a two-month operating and maintenance cost reserve for each subarea;
- Limit the amount of debt financing within each Subarea to each Subarea's ability to repay debt after covering operating costs;
- Manage the agency's debt capacity on a consolidated basis; Allow the use of short-term debt to bridge the gap between the timing of expenditures and the receipt of revenues, and
- Target fare box recovery rates as follows: Light Rail 40.0%; Commuter Rail 23.0%, and Regional Express Bus – 20.0%

**Public Accountability:** Sound Transit has engaged independent auditors and appointed a citizen oversight committee to monitor performance in carrying out its public commitments. In addition, Federal Transit Administration agents are assigned to oversee financial and project management functions and conduct process reviews of planning, design, and implementation of major capital projects to ensure compliance with all federal guidelines.

**Voter Approval Requirement:** The Sound Transit Board recognizes that the taxes approved by voters are intended to implement a regional transit system and to provide permanent funding for its future operations, maintenance, capital replacement, and debt service. Although the board has the authority to fund ongoing costs through a continuation of the local taxes authorized by the voters, the board pledges that, after the voter-approved plan is completed, subsequent capital expansion programs requiring continued local taxes at rates above those necessary to operate, and maintain the system and retire related debt will require approval by a vote of the citizens within the Sound Transit District.

**Sales Tax Rollback:** Upon completion of all voter approved transit projects, the Sound Transit Board will initiate steps to roll back the rate of sales and use tax collected. First, an accelerated payoff schedule will be established for any outstanding bonds whose retirement will not otherwise impair or affect the ability to collect tax revenue. Once all debt is retired, Sound Transit will implement a tax rollback to a level necessary to pay for system operations and maintenance, fare integration, capital replacement and ongoing system-wide costs and reserves.

**Risk Analysis.** The *Financial Plan* is based on a number of assumptions and projections of key variables such as cost inflation, revenue growth, interest rates and availability of federal funds. Although adequate contingency factors have been included in all these key variables, the financial forecasts are still vulnerable to periods of economic recession, and/or "spikes" in the cost of labor or construction materials. Although the *2016 Financial Plan* reflects adequate cash flow, cash reserves and debt coverage to meet all financial obligations, a stall in the economic recovery not currently reflected in the financial plan would most likely require further downsizing of or delay in the roll out of the ST2 program.

### INTRODUCTION

This report contains the *2016 Financial Plan* for the Central Puget Sound Regional Transit Authority (Sound Transit) and reflects the agency's plan to fulfill its mission to implement affordable high-capacity transit programs approved by voters in 1996 and 2008. The plan assumes completion of all affordable capital projects by year end 2023 and provides sufficient funding to ensure continued operation and maintenance of the transit system thereafter.

#### **Description of Sound Transit**

Sound Transit, the Central Puget Sound Regional Transit Authority, was created in 1993 pursuant to State enabling legislation (RCW 81.112). It is a special-purpose metropolitan municipal corporation, responsible for the construction and operation of high-capacity public transportation systems within its district. The Sound Transit district comprises five subareas within the contiguous urbanized areas of Snohomish, King, and Pierce counties (see Figure 1 on Page 5). The district is home to approximately 2.9 million people or 80% of the three-county population.

#### Existing Sound Transit Service

In November 1996 voters approved a Regional Transit System Plan – *Sound Move* – which incorporates elements of commuter rail, light rail, and express bus service into a comprehensive high-capacity regional transit system. Funding to complete *Sound Move* was secured in 1996 when voters approved the following new taxes: 0.4% Sales & Use Tax; 0.3% Motor Vehicle Excise Tax, and 0.8% tax on Rental Car fees. To date, the Transit Authority has implemented the following services:

- 1. 83 miles of commuter rail service providing 9 daily round-trips in the south between downtown Seattle and Tacoma of which five continue farther south to Lakewood. And to the north, four daily round-trips between Seattle and Everett serving approximately two million annual passenger trips.
- 2. 26 express bus routes with a fleet of 280 buses operating approximately 700,000 hours.
- 3. A 1.6-mile light rail line in Tacoma serving approximately one million annual passenger trips.
- 4. Associated stations, transit centers, park-and-ride lots and transit access ramps.
- 5. Beginning in 2009 Sound Transit began light rail service on 15.8 miles of double track from downtown Seattle to Sea-Tac Airport. On March 16, 2016 the agency opened another 3.1 miles of light rail alignment from downtown Seattle to the University of Washington. University Link went into revenue service 6 months ahead of schedule and approximately \$200 million under budget.

#### Voter Approved Service Expansion

In November 2008 voters approved an extensive program of transportation projects to be implemented over the 15-year time period from 2009-2023. This plan when fully implemented will add 34 miles of light rail extending north from the University of Washington through Northgate and on to Lynnwood; to the east from downtown Seattle through Mercer Island and Bellevue to Redmond's Overlake Transit Center, and to the south from SeaTac Airport through the Kent Des Moines Road area on to Highline Community College and Redondo/Star Lake. The ST2 plan increases the Seattle to Lakewood Sounder commuter rail service by adding four new daily round trips. The plan also includes expansion of regional express bus routes expanding service by 10 to 30 percent in key corridors.

#### Governance

Sound Transit is governed by an eighteen-member board consisting of the Secretary of Transportation for the State of Washington and seventeen locally elected city and county officials who are appointed by the legislative authority of each of the member counties, based on nominations from the respective county executives. Each county has one representative per 164,000 residents within the Sound Transit district. Currently, there are 10 representatives from King County, 4 from Pierce County, and 3 from Snohomish County.

The board structure defined in RCW 81.112 was designed to establish linkages between Sound Transit and other governmental entities that will foster efficient coordination and delivery of transportation services. As noted above, the WSDOT Secretary automatically serves on the Sound Transit Board and of the county appointees, one must be an elected official from the county's largest city, and at least half the appointees shall also be members of the legislative authority of a local transit system.

Major actions of the board require a two-thirds majority. These actions are defined by State law to include at least the following: System plan adoption and amendment, system phasing decisions, authorization of annexations, modification of board composition, and employment of the Chief Executive Officer.

#### **Relationship to Local Transit Systems**

Sound Transit is an independent regional transit authority. Four other transit agencies operate public transit services within the Sound Transit district: King County Metro, Pierce Transit, Community Transit, and Everett Transit. Sound Transit's Regional Express Bus services are operated by King County Metro, Pierce Transit and Community Transit under joint operating agreements. In addition, Sound Transit has contracted with King County Metro to operate the Initial Segment of the Link light rail system. The Sounder commuter rail service is operated through a contract with Burlington Northern Santa Fe (BNSF). Sounder commuter rail cars and locomotives are maintained under a contract with Amtrak.

#### **Financial Structure**

Sound Transit financial statements are maintained in accordance with methods prescribed by the Washington State Auditor under authority of RCW Chapter 43.90. Sound Transit uses Budgeting, Accounting, and Reporting Systems for proprietary type districts in the State of Washington as well as Generally Accepted Accounting Principles established by the Government Accounting Standards Board. Propriety funds are accounted for using the accrual basis of accounting. Therefore, revenues are recognized when earned, expenses are recognized when incurred. Fixed assets are capitalized when purchased, and long-term liabilities are accounted for as incurred. Funds are accounted for on a cost of service or capital gains measurement focus. This means all assets and all liabilities (whether current or non-current) associated with Sound Transit's activities are included on its balance sheets. Note, however, that the Finance Plan is maintained on a cash basis in accordance with federal guidelines (see Finance Plan Assumptions and Methodology section below).

#### **Financial Policies and Controls**

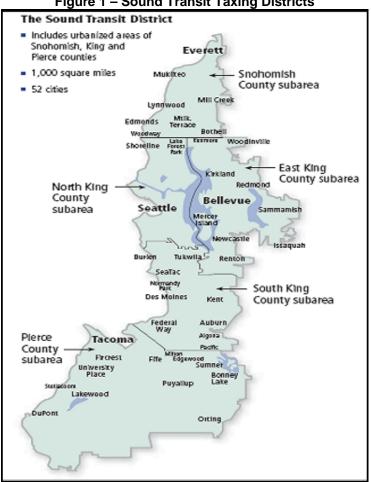
The *ST2 Plan* approved by the Board of Directors preserves the financial policies and controls set forth in the voter-approved *Sound Move* transportation and financing plans. Chief among these is a commitment to Subarea equity. State law requires high-capacity transit system plans to include an equity element that identifies: (i) revenues anticipated to be generated by corridor and by county; (ii) the phasing of construction and operation of facilities and services in each corridor; and (iii) the degree to which the revenues generated within each county will benefit the residents of that county.

The financial policies state that equity will be defined as "utilizing local tax revenues and related debt for projects and services which benefit the Subareas generally in proportion to the level of revenues each Subarea generates." The Sound Transit district is divided into five Subareas – Snohomish, North King,

South King, East King, and Pierce (See Figure 1 below). In adopting the plan, the Sound Transit Board agreed that the facilities, projects, and services identified in the original voter-approved plan represent a reasonable definition of equity for purposes of satisfying both public policy concerns and statutory requirements.

Following are the key financial policies adopted with the Financial Plan:

- Minimum agency wide net debt service coverage ratio of 1.5 or greater in any year;
- Maintain a two-month operating and maintenance cost reserve for each subarea;
- Limit the amount of debt financing within each Subarea to each Subarea's ability to repay debt after covering operating costs;
- Manage the agency's debt capacity on a consolidated basis; Allow the use of short-term debt to bridge the gap between the timing of expenditures and the receipt of revenues, and
- Target fare box recovery rates as follows: Light Rail 40.0%; Commuter Rail 23.0%, and Regional Express Bus - 20.0%



#### Figure 1 – Sound Transit Taxing Districts

System-wide expenditures that benefit all subareas are funded by an equal percentage of local tax revenues contributed by each of the five subareas plus interest earnings. These elements include agency administration, the integrated fare program, innovative technologies and planning for future capital investments that may be placed before the region's voters.

#### **Financial Oversight**

**Annual Financial Statement and Independent Auditor's Report**: At the close of the fiscal year on December 31, an independent auditor's report is prepared including balance sheet, statements of revenues and expenses, findings (notes to the financial statements) and formal opinion. This report is presented to the Board of Directors.

**Annual Single Audit Report** As a recipient of federal funding, Sound Transit is required to engage an independent auditor to review compliance with U.S. Office of Management and Budget Circular A-133. This directive specifies accounting procedures and internal controls to insure that federal funds are managed in compliance with federal laws and regulations. This report is presented to the Board of Directors.

**FTA Triennial Review**: At a minimum of three-year intervals, the Federal Transit Administration (FTA) conducts a review to ascertain Sound Transit compliance with 23 functional requirements of agencies receiving federal funds. These include activities such as procurement, fare policy, drug free workplace, financial control and disadvantaged business enterprise.

**Project Management Oversight Consultant**: For major construction projects under a Full Funding Grant Agreement (FFGA), FTA contracts with an independent firm to monitor engineering design, cost estimates and construction/procurement practices. FFGA projects include the Link light rail system from SeaTac Airport to the University of Washington.

**Financial Management Oversight (FMO):** Is provided by a financial expert under contract to FTA. This specialist reviews financial plans to verify that all assumptions and calculations are reasonable and in accordance with FTA Guidance for Transit Financial Plans. The FMO consultant also requires that Sound Transit conduct "stress tests" to validate that the agency has sufficient capacity to meet all financial plan.

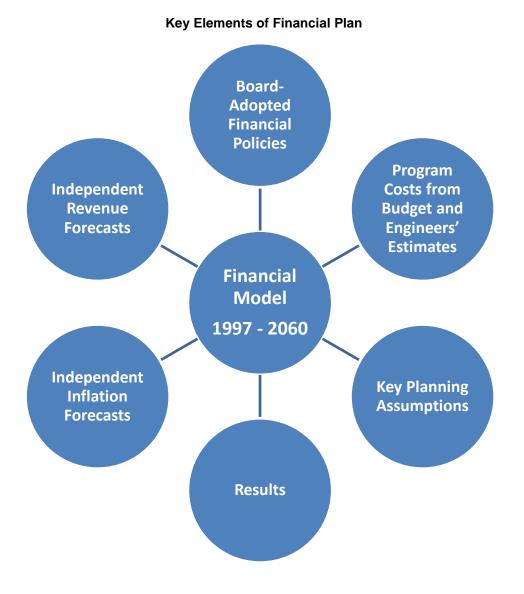
**Citizen Oversight Panel:** This is a volunteer body appointed by the Sound Transit Board to oversee and monitor implementation of *Sound Move* and *ST2*. The panel monitors performance of Sound Transit and reports to the Board two or more times per year on findings and recommendations for improvements to ensure the success of agency plans and investments.

**Annual Report on Subarea Equity:** One of the key commitments of *Sound Move* and now *ST2* is to assure that Sound Transit delivers a fair share of investments to each of the five geographic subareas commensurate with their contributions of tax-based revenues to the Authority. To insure that this concept is maintained, Sound Transit engages an independent auditor to review the subarea reports for compliance with agreed-upon procedures for allocation of resources among the subareas. The findings of this report are presented to the Citizen Oversight Panel and the Sound Transit board of directors.

### FINANCIAL PLAN ASSUMPTIONS AND METHODOLOGY

The long-term *Financial Plan* is produced in accordance with the Federal Transit Administration's (FTA) "Guidance for Transit Financial Plans." The plan is maintained on a cash basis. It states and projects all agency sources and uses of funds for the period 1997-2060 with special focus on 2009 – 2023 which is the ST2 start to completion time period. The *Financial Plan* presents the agency's operating statements, sources and uses statements, debt amortization and capital replacement funding schedules for the period 1997-2060. The *Financial Plan* incorporates the agency's most current proposed or board-adopted operating budget and long-term capital and operating plans for ST Express bus, Sounder commuter rail and Link light rail as included in both the Sound Move and ST2 voter-approved programs.

At the heart of the *Financial Plan* is the Financial Planning Model. This model incorporates all financial policies, assumptions, revenue forecasts and program cost estimates needed to calculate cash flow, debt financing and key performance indicators (e.g., cash balances and debt service coverage ratios) over the long-range planning horizon. The diagram below illustrates the concept of the model.



### **Funding Sources**

#### Local Taxes

The State enabling legislation defines the taxes that may be levied by a regional transit authority. These include: (1) Retail sales and use tax of up to 0.9%; (2) Motor vehicle excise tax (MVET) of up to 0.8%; (3) Employer tax of up to \$2.00 per employee per month; and (4) Sales and use tax of up to 2.172% on taxable retail car rentals. The first three taxes may be levied based on a simple majority vote within the regional transit district. The car rental tax may be implemented by board action only if voters have approved the levy of a motor vehicle excise tax. The regional transit authority can pledge the revenues from any of these taxes to the repayment of bonds issued for high-capacity transit purposes. Once approved by voters, the taxes may be implemented by a vote of the board and may continue in perpetuity at the board's discretion.

A sales and use tax of 0.4% and an MVET of 0.3% were approved for Sound Transit's use in a November 1996 referendum. Subsequent to this referendum, the board also authorized a rental car tax of 0.8%. Approval of these taxes was in connection with the *Sound Move* Ten-Year Regional Transit Plan, adopted by the Sound Transit Board in May 1996. In November 2008, voters approved increasing the sales tax rate to 0.9% to provide funding for the Phase 2 (ST2) plan.

Neither the sales and use tax nor the rental car tax has a sunset provision; however, the Sound Transit MVET collections will expire at the end of 2028. Once the capital portion of all voter approved programs is complete, and all related outstanding bonds have been retired, the board will roll back tax rates to a level sufficient to generate the funds necessary to fund asset replacement, and to perpetually operate and maintain the facilities and services implemented as part of the current system plan approved by voters.

Forecasting tax revenues for the Sound Transit district presents unique challenges, as the Agency's jurisdictional boundary does not correspond to any other economic reporting entity. The district includes incorporated and unincorporated areas in three counties – King, Pierce and Snohomish. Sound Transit receives forecasts of sales and motor vehicle excise tax revenue bases at the county level from a local consulting economist. The tax base forecasts are grounded on economic and population projections from the Puget Sound Economic Forecasting Model, a regional econometric model of King, Pierce, Snohomish and Kitsap counties. The variables used to predict taxable retail sales include Puget Sound personal income, housing permits and the unemployment rate, among other variables. The motor vehicle excise tax base is forecast based on predictions of motor vehicles by type, driving-age population and the unemployment rate, as well as the expected average value of motor vehicles. These forecasts project an average annual growth rate of approximately 4.14% for sales tax and 2.74% for MVET tax bases over the period 2009 to 2023.

Countywide tax base forecasts provided by a consulting economist are then allocated to each of the five Sound Transit subareas based on actual historical data from the State Department of Revenue and the State Department of Licensing.

Figure 2 on the next page and Appendix B present annual tax revenue forecasts through 2040. The steep rise from 2008 to 2010 reflects the change in Sound Transit sales tax rate from 0.4% to 0.9%, effective April 1, 2009.

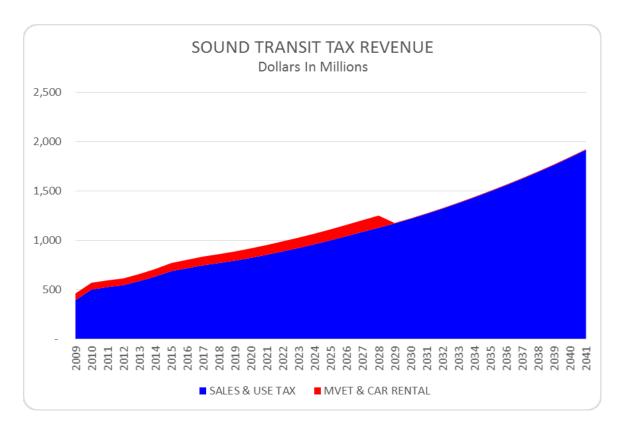


Figure 2 – Sound Transit Tax Revenue

### **Ridership and Fare Revenue**

Fare revenues are a product of transit ridership and fare prices. Ridership in turn, is a result of transit service provided, as well as a number of other factors. In the near term, ridership can be estimated based on past trends and the amount of transit service to be provided (e.g. routes, service frequency, parking capacity at park-and-ride facilities, etc.).

For long-range ridership forecasts, including light rail, the Sound Transit travel demand forecasting model (ST Model) is used. In the ST Model, transit ridership forecasts are based on observed origins and destinations of transit riders, observed transit line volumes, and a realistic simulation of observed transit service characteristics. The ST Model is executed in three stages. In Stage 1, regional changes in demographics (households and employment) are taken into account. In Stage 2, changes in transit and highway travel times, which reflect congestion levels, and cost factors such as parking costs, transit fares, and household income are taken into consideration. In Stage 3, incremental changes to the transit network such as addition of light rail services offered are incorporated, and a forecast of zone to zone transit trips is prepared for the region. Each light rail alternative ridership forecast is paired with a comparable baseline ridership forecast so the effects of incremental changes in the transit network can be clearly measured.

#### Sound Transit Ridership (Millions of boarding passenger trips) 2014 2015 2020 2030 Sounder Commuter Rail 3.4 3.8 4.0 5.6 Link Light Rail\* 10.9 11.7 23.6 84.5 Regional Express Bus 17.7 18.3 20.8 14.7 32.0 48.4 Total 33.8 104.8

Table 1

\* Excludes Tacoma-Link

The *Financial Plan* assumes the Agency continues to collect fare revenues from Sound Transit operations — ST Express bus, Link light rail and Sounder commuter rail. Fare revenue forecasts are based on ridership forecasts and assumptions regarding fare levels and price elasticity. The future fare structure assumes the following characteristics:

- Fares will be structured with a base fare plus an increment based on the distance (zone) traveled, similar to the fare structure approved by the board of directors for Sounder and Link light rail.
- Sound Transit regional express bus fares will compare to bus fares of other transit agencies serving the three counties, including zone fares;
- There will be no charge for bus-rail transfers;
- There will be discounts offered to seniors and youth; and
- Monthly passes and employer passes will be sold at a discount.

In addition, fares are assumed to generally increase with inflation over time, or are increased as need to maintain board-adopted fare recovery ratios.

Allocation of regional fare revenue to Sound Transit from collections through the ORCA card system are based on an inter-local agreement reached between Sound Transit, Community Transit, Everett Transit, King County Metro, Pierce Transit, Everett Transit, Kitsap Transit, and Washington State Ferries.

Table 2 below shows the fare revenue forecast for selected years. Appendix B shows the agency-wide fare revenue forecast from 2009 - 2040.

Se	ound Transit	ole 2 Fare Revenu Ilions)	es											
2014 2015 2020 2030														
Sounder Commuter Rail	\$10.5	\$11.9	\$12.5	\$18.2										
Link Light Rail*	\$15.9	\$18.2	\$38.9	\$109.8										
Regional Express Bus	\$33.8	\$35.3	\$39.9	\$29.5										
Total	\$60.2	\$65.4	\$91.3	\$157.5										

\* Excludes Tacoma-Link

### Grants

Federal funding is generally secured through conventional Federal Transit Administration (FTA), Federal Highway Administration (FHWA) and Federal Railroad Administration programs currently authorized under the Fixing America's Surface Transportation (FAST) Act and future authorizations. Funding will be secured through both congressional appropriations and regional/national grant competitions. Funding awards are still provisional, subject to annual Congressional budget appropriations.

Sound Transit Grant Fundin	g Assumptions	s 2009 – 2023	
Funding Sources	Total Grants 2009-2023	Grant Drawdowns 2009-2015	Anticipated Funding
SECTION 5309 NEW START-Sounder	\$ 1,361,354	\$ 1,361,354	\$-
SECTION 5309 NEW START-Initial Segment	\$ 43,776,358	\$ 43,776,358	\$-
SECTION 5309 NEW START-U Link	\$ 668,332,926	\$ 601,070,066	\$ 67,262,860
SECTION 5309 NEW START-Lynnwood	\$1,172,728,000	\$-	\$ 1,172,728,000
SECTION 5309 -Small Start	\$ 75,000,000	\$-	\$ 75,000,000
FTA Formula Grants (Sec 5307, 5309 FG, 5337 and 5339)	\$ 610,185,413	\$ 286,142,219	\$ 324,043,194
CMAQ	\$ 85,988,675	\$ 45,488,675	\$ 40,500,000
WSDOT Regional Mobility	\$ 43,825,682	\$ 28,825,682	\$ 15,000,000
FRA	\$ 46,163,786	\$ 46,163,786	\$-
TIGER	\$ 48,334,147	\$ 22,334,147	\$ 26,000,000
Section 5309 Bus	\$ 29,065,465	\$ 29,065,465	\$-
STP	\$ 9,517,250	\$ 7,317,250	\$ 2,200,000
STATE	\$ 5,577,199	\$ 5,227,199	\$ 350,000
Other competitive grants (Sec 5308, TCSP, TSGP, TIGGER etc)	\$ 12,658,622	\$ 12,658,622	\$-
Total	\$2,852,514,877	\$ 1,129,430,823	\$ 1,723,084,054

 Table 3

 Sound Transit Grant Funding Assumptions 2009 – 2023

#### Interest Earnings

The *Financial Plan* assumes that Sound Transit will earn a 2.0% rate of return on General Fund cash balances throughout the planning horizon (2040). In accordance with Sound Transit financial policies, all interest earnings are credited to at the Agency level offset expenditures for system-wide programs.

#### State and Local Assistance

State and local financial assistance includes funds that are either granted directly to Sound Transit or are provided as a credit against taxes or fees that would otherwise be levied on construction activities by other units of government. The agency has commitments from other jurisdictions for providing funds for ST Express, Light Rail, and Sounder projects. Such revenues are not included in the Financial Plan until agreements with other jurisdictions are signed.

#### Inflation Forecasting

Three inflation forecasts are used at Sound Transit to inflate costs over time in the long-range *Financial Plan.* The Consumer Price Index (CPI-U Seattle) is applied to Operating & Maintenance expenses, and "soft" capital costs, excluding construction & land acquisitions. The CPI forecast and tax revenue base forecasts are developed by a local consulting economist. The Construction Cost Index is applied to construction-related elements of the capital program. A Seattle-area forecast of the CCI index is prepared for Sound Transit by an outside consultant based on projected changes to the price of a "shopping cart" of goods related to construction. A right-of-way index (ROWI) forecast is applied to property acquisition costs.

#### Debt Financing

The Financial Plan assumes Sound Transit's long-term debt will primarily be in the form of 30-year bonds. The agency's current bond ratings are as follows: Moody's – Aa1 and Aa2 for Senior and Parity bonds, respectively, and Standard & Poor's – AAA, all bonds. In addition to 30 year bonds the agency has executed a \$1.3 billion federal loan under the Transportation Infrastructure Finance and Innovation Act (TIFIA) at an interest rate of 2.38%.

#### Debt Financing Capacity

Although Sound Transit does not levy property taxes, its debt limit pursuant to State law, like that for all municipalities in the State of Washington, is based on the assessed valuation of real property located within the regional transit authority district. There are two types of bond limits — one for non-voted debt, and the other for voted debt.

Sound Transit may issue total outstanding debt in an amount up to 1.5% of assessed valuation within its district without special voter authorization.

Upon the approval of 60% of the electorate, Sound Transit could issue bonds in amounts up to 5.0% of assessed valuation.

#### **Bonding Assumptions**

The financial policies adopted by the Sound Transit Board encourage a conservative use of debt:

For long-term planning purposes, the Sound Transit agency debt service coverage ratio policy is set at an average coverage ratio for net revenue over annual debt services costs, not to fall below 1.5 in any single year. However, as voter-approved plans are implemented, prudent changes to coverage ratios may be made by the Board as appropriate. Prior to bond issuance the agency will establish the appropriate debt service coverage ratio to incorporate into its bond covenants.

Debt service coverage ratio is the amount of revenues available after funding operating expenses divided by debt service costs.

The Financial Plan assumes 1.25% issuance costs and 7.15% of outstanding principal set-aside for bond reserves. The plan further assumes that future bonds will be issued at an average interest rate of 5.3% and that most bonds will be structured with a 30-year term, with principal payments deferred for five years. Bonds may have a non-level principal amortization structure.

### **Debt-to-Equity Ratio**

Title 81.104.130 of the Revised Code of Washington states that agencies providing high capacity transportation service shall determine optimal *debt-to-equity* ratios. The term "debt-to-equity ratio" is most commonly applied to publicly traded companies whereby "equity" is determined to mean *stockholders equity*. For Sound Transit, the ratio can be interpreted as follows:

- Debt refers to total debt issued (bonds).
- Equity refers to the amount of capital expenditures made ("taxpayer's equity").

Under these definitions, the debt-to-equity ratio would be the cumulative amount of debt incurred (dollar amount of bonds issued) divided by the amount of capital investments (dollar amount expended on capital programs). In effect, it is the proportion of capital assets funded from bond issues.

The agency debt-to-equity ratio reaches a maximum of 47% in 2024, at the completion of the ST2 capital plan, and then declines thereafter.

#### **Summary of Financial Assumptions**

- Sales Tax Rate: 0.4% 1997 2009; 0.9% 2009 + (subject to potential sales tax rollback, after 2024)
- Sales Tax Average Annual Growth: 4.1% 2009 2023
- MVET Tax Rate: 0.3% 1997 2028 (tax ends in 2029)
- MVET Tax Average Annual Growth: 2.7% 2009 2023
- Rental Car Tax Rate: 0.8%
- Rental Car Average Annual Growth Rate: 2.3%
- Average fare prices increase at a rate generally in line with inflation
- Sound Transit to receive \$2.8 billion in federal grant revenues 2009 2023
- CPI Average Annual Cost Inflation: 2.0% (including contingency) 2009 2023
- CCI Average Annual Cost Inflation: 3.4% (including contingency) 2009 2023
- ROWI Average Annual Cost Inflation: 4.5% (including contingency) 2009 2023
- Interest Rate earned on Reserve Fund balances: 2.5%
- Bond Interest Rate: 5.3%
- Bond Term: 30 years
- Interest Only Payment Period on Bonds: First 5 years
- All-in Issuance Costs: 1.25% of Par Value
- Principal Set-Aside for Bond Reserves: 7.15%
- O&M Reserves equal to two months' O&M costs

#### SERVICE AND OPERATING PLAN

#### Service Implementation Plan

Sound Transit services currently consist of four modal elements: (1) ST Express Bus; (2) Sounder Commuter Rail; (3) Tacoma Link Light Rail; and (4) Central Link Light Rail. These elements have been consolidated under the Operations Department. The summary below includes all services approved by voters under both the Sound Move and ST2 ballot propositions.

#### ST Express Bus

Through its partner agencies – King County Metro, Pierce Transit and Community Transit, Sound Transit currently operates 280 buses on 26 routes with a total of approximately 720,000 annual vehicle platform hours. ST Express regional bus service operates from 2:15 a.m. to 1 a.m. every day. Service levels on ST Express route range from peak-only to all-day, all-week service. ST Express bus ridership in 2015 was 18.3 million, compared to 17.7 million in 2014. In 2015, ST Express buses carried almost 64,000 passengers each weekday.

In response to sustained ridership growth and increasingly crowded conditions on ST Express service, ST Express plans to improve service frequency, expanding hours of operation and adding trips to relieve overloads. These new resources would address immediate capacity needs, create new bus connections to U Link and planned new Sounder trains, mitigate impact from East Link construction, and provide schedule maintenance to bring running times up to date. Additionally, high occupancy vehicle (HOV) access projects have been implemented through a partnership between Sound Transit and WSDOT. These special access ramps make it easier for transit and carpools to use HOV lanes at some of the region's most congested freeway intersections.

#### Sounder Commuter Rail

The Sounder Commuter Rail system, which uses conventional railroad locomotives and passenger coaches, includes 12 stations on two lines that span three counties. The North Line runs from Seattle to Everett; the South Line runs from Seattle to Lakewood. Sounder Commuter Rail ridership in 2015 was 3.8 million, compared to 3.4 million in 2014. Sounder trains carried more than an average of 14,000 passengers each weekday. The goal of the Sounder Commuter Rail is to increase the passenger-moving capacity of the regional transportation system while not impeding the flow of freight.

Sounder Commuter Rail service between Tacoma and Seattle began in 2000 with two round trips on weekdays and weekend event service. Service has gradually been expanded to ten round trips between Tacoma and Seattle and four round trips (with two additional trips provided by Amtrak) between Everett and Seattle on weekdays, as well as event service on weekends. Sounder service between Tacoma and Lakewood began in October 2012.

In September 2016, a new Sounder south line roundtrip between Lakewood and Seattle accommodates ridership growth and offers new schedule options for commuters. The new round trip leave Lakewood for Seattle in the late morning and returns from Seattle to Lakewood in the early afternoon.

#### Tacoma Link Light Rail

Tacoma Link is a 1.6-mile at-grade light rail line with five stations, including the Tacoma Dome multimodal station. Tacoma Link began service in August 2003 and connects downtown Tacoma with a regional transit center at the Tacoma Dome Station, where riders can transfer to Sounder Commuter Rail, ST Express regional buses and local Pierce Transit buses. The scheduled end-to-end running time is approximately 10 minutes each way and is synchronized with the City of Tacoma's traffic signal timing system.

Ridership was approximately 980,000 in 2015, compared to 960,000 in 2014. Tacoma Link Light Rail trains currently carry more than 3,300 passengers each weekday.

### Link Light Rail

Link Light Rail is a 19-mile light rail system with 15 stations that runs between Sea-Tac Airport and University of Washington. Ridership in 2015 was approximately 11.7 million, compared to 11 million in 2014. In 2015 (prior to the 2016 U-Link expansion discussed below), Link Light Rail carried approximately 35,500 passengers each weekday. Link trains run every 6, 10 or 15 minutes depending on the time of day. Service is available from 5 a.m. to 1 a.m. Monday through Saturday and from 6 a.m. to midnight on Sunday and holidays.

In March 2016, a 3.1-mile extension (known as "U-Link") with new stations at Capitol Hill and University of Washington opened. Capitol Hill Station serves the state's most densely populated urban area, and the University of Washington Station serves the largest educational institution in the Northwest. Together, the two stations will significantly increase ridership on Link and require increased passenger capacity. Additionally, service from SeaTac Airport to South 200th Street ("Angle Lake") and its 1,000-stall park-and-ride is expected to open by year end 2016. This 2016 Link service expansion represents significant progress towards development of the Link system that is envisioned to connect all of the region's major population and employment centers.

Future expansion approved by voters (ST2) includes 36 new miles of light rail service, and segments will open in 2021 and 2023. When all expansion programs are completed, light rail trains will service transit riders at 19 newly constructed stations for up to 20 hours each day.

#### **Operating and Maintenance Costs**

Operating and maintenance (O&M) costs are projected by transit mode (bus, commuter rail and light rail) as part of the annual budget process taking into account all scheduled service expansions. For ST Express and Sounder, O&M costs forecasts are based on experience in contracting with the local service providers. For light rail, the O&M cost estimates are based on a cost build-up model for each function (e.g., vehicle operations, vehicle maintenance, and facilities maintenance) including the cost of administration and support services. The O&M costs for the three modes of service are presented in Appendix B.

System-wide activities represent programs that are funded by interest earnings in the general fund and levies on subarea tax revenues, the latter is not to exceed 10 percent per year. These include administration costs that are not allocated to the lines of business (light rail, commuter rail and express bus), regional fare integration costs, phase 3 planning and research and technology programs.

#### CAPITAL PLAN

Sound Transit's capital program includes projects for system expansion, system enhancement, rehabilitation & replacement and administration. Sound Transit updates the capital program annually as part of its comprehensive budget process. Larger improvements and expansions of each mode that were approved by voters in *Sound Move* and *ST2* are detailed below.

#### ST Express Bus

Currently, the ST Express capital program is focused on providing two types of transportation improvements: community connection facilities and HOV improvements. Community connection facilities include transit centers, park-and-ride lots and transit access improvements. These community connection facilities improve access to the regional transit system and connections to local transit services. The HOV improvements are designed to allow quick and reliable express bus service throughout Sound Transit's service area. The HOV access projects were implemented through a partnership between Sound Transit and WSDOT. Sound Transit has constructed special access ramps to make it easier for transit and vanpools to use HOV lanes at some of the region's most congested freeway intersections. These improvements are intended to expand and improve the existing HOV network within the District.

Sound Transit will continue to participate with Washington State Department of Transportation (WSDOT) in developing High Occupancy Vehicle (HOV) projects as part of the I-90 corridor across Lake Washington. In addition, Sound Transit will continue to improve passenger amenities such as providing more accessible low-floor buses and developing real-time next bus arrival information at stations.

### **Sounder Commuter Rail**

The Sound Move capital program for Sounder was completed in 2012 when revenue service from Tacoma to Lakewood began. The Sounder Commuter Rail capital program has delivered 82.5 miles of peak-period train service primarily using existing BNSF railroad tracks between Everett, Seattle, Tacoma and Lakewood.

The ST2 plan approved by voters in November 2008 includes programs that will increase the capacity of the highly utilized Tacoma-Lakewood service by adding four round-trip trains daily and potentially extending train lengths up to eight cars. Additional locomotives and passenger cars will be acquired to support this capacity and service expansion. Station access will be improved at Mukilteo, Auburn, Sumner, Puyallup, Tacoma, South Tacoma and Lakewood. There will be track and structure upgrades from Tacoma Dome to Reservation Junction. Funds are also included to construct and operate a commuter rail operations and maintenance facility. Sound Transit also expects to construct an expanded Sounder station in Tukwila and access improvements for Sounder Commuter Rail and bus riders at seven stations.

#### Tacoma Link

Expansion of the Tacoma Link system 2.4 miles from the Theater District to the Stadium and Hilltop districts completed its environmental review and preliminary engineering, and will begin final design in 2016.

### Link Light Rail

The following light rail alignments were funded by voters in 1996 in the Sound Move System Plan: the Initial Segment of Central Link (13.9 miles), Airport Link (1.7 miles), South 200th (1.6 miles), and University Link (3.1 miles). In addition, preliminary engineering and initial planning for extending the alignment to Northgate were funded at that time. The Initial Segment began revenue service in July 2009. The Airport Link extension connecting the Tukwila station to SeaTac Airport opened in December 2009. The University Link segment opened for revenue service on March 19, 2016, six months early and approximately \$200 million below budget. This three-mile light rail extension includes a tunnel that extends east from the Downtown Seattle Transit Tunnel, crossing under Interstate 5 and then proceeds north to the Capitol Hill Station serving the First Hill/Capitol Hill urban center. The tunnel route then crosses under the ship canal to an interim terminus at the University of Washington station at Husky Stadium, serving the University of Washington campus and the surrounding neighborhoods.

The ST2 plan approved by voters in November 2008 will add approximately 36 miles of light rail alignment to the system by extending north from the University of Washington through Northgate on to Lynnwood, south from Sea-Tac Airport to the vicinity of Highline Community College and 272nd Street, and east from Seattle through Bellevue to the Overlake Transit Center area of Redmond. Service to Northgate is expected to open by 2021, with service to Lynnwood online by 2023. Service to downtown Bellevue and the Overlake Transit Center is scheduled to begin in 2023.

In the south, service is planned to reach the Angle Lake area by 2016, and Kent Des Moines Road by 2023. Additional extensions to South 272nd Street or the Federal Way Transit Center are under review for future development. Funding for planning, environmental documentation, preliminary engineering and right-of-way preservation of future light rail extensions to Tacoma in the south corridor and Redmond in the east corridor was provided in the ST2 program approved in November 2008.

#### **System-Wide Activities**

Sound Transit's capital and operating programs include funding for projects that are regional in scope, including: (1) Research and Technology Fund; (2) Fare Integration; (3) Phase 3 Planning; and (4) Agency Administration capital and operating projects.

The Financial Plan also includes provision for general fund reserves, bond reserves, bond issuance costs, and a project cost contingency reserve. Sound Transit maintains O&M reserves equal to two months operating costs. Cash is managed so that a minimum \$5 million operating balance is maintained in the General Fund at all times.

#### **Debt Service**

The Financial Plan assumes that in the years following completion of all voter-approved projects Sound Transit may reduce the sales tax rate to a level of not less than 0.8% so long as the resulting revenue is sufficient to meet all ongoing financial requirements. In order to further roll back this tax, the RTA district can begin a program of accelerating debt service payments in compliance with the sales tax rollback policy. Accelerated debt service payments will substantially reduce total long-term interest payments.

#### Asset Management

The Sound Transit Financial Plan provides for the repair and replacement of key operating assets through budgeting for the cost of replacing and refurbishing these assets in long range financial models and maintaining a \$300 million fund that can only be used for asset management. Annual costs of future asset replacement or mid-life maintenance activity is calculated for each class of asset based on; original cost, in-service date, estimated asset life, in addition to other financial factors.

The annual payment calculation assumes that 100% of replacement costs will be funded by Sound Transit revenues. The interest earnings rate on the \$300 million capital reserve fund is currently assumed at 2.5% annually.

The replacement date for assets follows generally-accepted principles for the useful life of transit facilities and equipment. For buses the industry standard is a 12-year replacement cycle, for Sounder and Light Rail vehicles, the cycles are from "Methodology for Projecting Rail Transit Rehabilitation and Replacement Capital Financing Needs," by Robert L. Peskin, published in Transportation Research Record 1165.

#### FINANCIAL MODELING RESULTS

The summary results of the Sound Transit Financial Planning Model are found in Appendix "A" and represent the combined *Sound Move* and *ST2* propositions approved by voters in 1996 and 2008 respectively.

The 2016 FINAL Financial Plan reflects all assumptions and contingencies as detailed throughout this presentation and at present meets all criteria stated in the Financial Policies and Controls section.

### KEY FINANCIAL ISSUES

#### Financial Risks

Stress tests are regularly conducted on the Financial Plan in order to assess the extent to which the Agency's plans are susceptible to not being fully met due to external risk factors. Completion of a series of these tests has confirmed that at the agency level Sound Transit has sufficient financial flexibility to withstand significant adverse financial shocks. However, on a stand-alone basis, individual subareas are more susceptible to negative financial developments than the agency as a whole.

#### Key Risk Areas

**Federal Funding:** Sound Transit has received \$500 million under a Full Funding Grant Agreement (FFGA) with the Federal Transit Administration (FTA) for the Initial Segment project. In January 2009, FTA approved a FFGA for \$813 million for the University Link extension project of which \$681 million will be drawn down due to effective project cost management. The ST2 program assumes another \$1,173 million of FTA discretionary funding for project(s) comprising the 34-mile Link extensions. Although this amount represents a much lower proportional share of federal participation for the future light rail system than FTA has provided for the initial 20 mile system, Sound Transit cannot be absolutely certain of any FTA discretionary funding in the future. And while the FTA has an excellent record of meeting its total obligations under its FFGAs, there is a risk that annual appropriation levels will not meet the schedule outlined in the FFGA. A delay in the receipt of federal funds will make it necessary for the agency to issue more bonds, thereby increasing debt service payments and ultimately reducing the debt service coverage ratio.

**Local Tax Revenue Growth:** Sound Transit primarily relies on an independent forecast of its local tax basis. The tax revenue forecast projects continued improvement through 2016 then stabilizing thereafter. The forecast included in the Financial Plan does not anticipate another recession through the end of the ST2 program construction phase in 2023. However, long-term economic forecasts are inherently uncertain and actual economic growth in the region could be lower than the current forecast, especially if the region experiences a period of "stagflation" (high inflation with stagnant economic growth). If revenue growth were to fall below the current forecast, the agency's revenue collections as well as its long-term bonding capacity would be reduced. A significant reduction in local tax revenues would have a negative impact on the agency's financial condition. See Appendix D for forecasts of tax revenues.

**Interest Rates:** The financial model assumes that the agency can, on average, borrow at 5.3% interest on its long-term bonds. If interest rates were to rise above this level for a prolonged period of time, the cost to borrow and service debt could increase to the point that the agency's capacity to borrow additional funds would be negatively impacted. Although current interest rates are relatively low, various factors may cause interest rates to rise in the mid to long term.

**Inflation:** The Puget Sound region has experienced relatively mild price increases for general goods and services. The CPI-U is currently very low and is projected to remain in the 2.0% to 2.6% range through 2030.

The Financial Plan incorporates long-term; consumer price, construction cost, and real estate cost inflation forecasts provided by independent consultants or developed internally using data from external sources. The current forecast projects long term inflation will reflect historically moderate levels if inflation were to rise significantly beyond this forecast, or if Sound Transit's construction schedules were to be delayed, the agency's capital and operating costs would also rise beyond the current forecast. Historically, retail sales and use tax, the agency's primary revenue source, has risen with general price levels partially mitigating this risk. See Appendix D for forecasts of cost inflation.

#### **Operating and Maintenance Costs**

The Financial Plan utilizes O&M cost build-up models to project costs for Sounder, Link Light Rail, Tacoma Link and ST Express bus services. These models calculate the annual cost associated with providing projected service levels based on the amount of inputs: staffing, equipment, and materials, needed to provide service at those projected levels. The parameters for these models are developed from experience of both Sound Transit and other transit agencies operating similar services. It is recognized that O&M costs are affected by many factors, including partnership operating agreements and changes in operating efficiency. The cost of fuel, utilities, spare parts and supplies are subject to change depending on regional

and even international market conditions. Adverse changes in these consumables may lead to higher O&M costs than projected in the Financial Plan, reducing financial capacity and flexibility.

#### Sensitivity Analysis / Stress Tests

A series of sensitivity analysis or "stress tests" were conducted to assess the extent to which the agency's ability to fulfill its voter approved mission is at risk due to the impact of external factors on the Financial Plan.

The five stress tests conducted are as follows:

**Sales Tax Growth Rate:** This test quantifies the extent to which the agency's estimated sales tax revenues could decline before the net debt service coverage ratio (DSCR) falls to a minimally sustainable level of 1.15x. At the agency level, sales tax would need to decline approximately \$1.5 billion or 24% (2016 - 2023) versus the current financial plan before net DSCR falls to 1.15x.

**Bond Interest Rates:** How much could interest rates paid on all agency bonds issued after 2014 increase before net DSCR drops to 1.15x? Interest rates would need to increase to 645 basis points to 11.75%, up from 5.3%, before net DSCR declines to 1.15x.

**Capital Cost Inflation:** How much additional capital spending could the agency absorb beyond current planning estimates before net DSCR drops to 1.15x? The agency could sustain up to \$4.2 billion in additional project costs before the net DSCR declines to 1.15x.

**Grant Revenues:** How much would Grant revenues need to fall before the agency net DSCR fell to the 1.15x level? All of the expected Grant revenue of approximately \$1.6 billion from 2017 – 2023 could be lost, and the net DSCR would still be above 1.15x.

**Inflation:** How much would the Consumer Price, Construction Cost, and Right-of-Way Indices need to increase in order to degrade agency DSCR to 1.15x. All three indices would need to increase by approximately 575 basis points or more than double over the 2015 – 2023 time-period before net DSCR declines to 1.15x.

### Mitigation of Cost Increases or Funding Shortfall

In the event of cost increases or funding shortfalls, there are several mitigation strategies that could be implemented:

**Apply savings from bonding:** The Financial Plan uses conservative assumptions regarding bonding and debt coverage, which are appropriate for long-range planning. However, as the agency implements the capital program, it may be possible to apply savings from debt service costs as the projects begin their construction phases.

**Changes to financial policies and financial planning assumptions:** The agency's financial policies and financial planning assumptions, such as debt service coverage and capital replacement, could be altered within prudent financial parameters to make additional resources available.

**Construction schedule extended:** Delaying the schedule could generate additional resources. In most years, tax revenues increase faster than cost inflation. Another benefit in extending the construction schedule is the postponement of operating costs and debt service costs.

**Control O&M costs:** If growth of O&M costs increase significantly above inflation, Sound Transit could find alternate providers for services or reduce the level of service on routes/runs that have high costs and/or low ridership efficiencies.

### Sources of Funds

**Sound Transit Tax Revenues:** Sound Transit is primarily funded by three local taxes: (1) Sales and use tax of 0.9% (increased by 0.5% by Proposition 1 effective April 1, 2009), (2) Motor vehicle excise tax (MVET) of 0.3%, and (3) Rental car tax of 0.8%. Sound Transit's combined tax revenues are projected to total \$11.6 billion during the period 2009-2023, which is down \$4.1billion or 26% versus the forecast included as part of Proposition 1 approved by the voters in November 2008.

**Federal Grant Support:** In addition to local tax revenues, the agency expects to receive approximately \$2.8 billion in grant funding over the 2009 through 2023 time period. Of this amount, approximately \$1.8 billion is from two discretionary grants provided by the Federal Transit Administration (FTA). One represents an existing \$681 million FFGA for the University Link light rail segment, and the other is an assumed \$1,173 million FFGA for the Northgate to Lynnwood light rail segment. The balance of Grant revenues is expected to come primarily from FTA formula grants and other competitive grant programs.

**Operating Revenues:** Fares and Other Revenues, which include interest earnings, total \$1.4 billion in the 2016 Financial Plan (2009-2023). Approximately 15% of fare revenues are forecast to come from Sounder commuter rail, 44% from Regional express bus, and 41% from Link light rail.

**Bonding:** Transit infrastructure is inherently long-lived; therefore, it is appropriate to finance some portion of their construction costs over a period consistent with a long useful life. The Financial Plan assumes Sound Transit will issue long-term debt in the form of 30-year bonds.

#### Uses of Funds

**Sounder Commuter Rail Capital Program:** The Sounder capital program completed the D Street to M Street extension in 2012. Service was extended by 8.7 miles to Lakewood, and additional track easements, locomotives and passenger cars will be added to increase the number of round-trip trains on weekdays to 17. Access to and parking at several stations will also be improved along the Seattle to Lakewood and Seattle to Everett alignments.

**Express Bus Capital Program:** ST Express Bus projects include park-and-ride lots, high occupancy vehicle (HOV) lanes/access, transit centers and vehicles. The plan also provides for additional bus routes and funding for the design of an operating and maintenance facility.

**Tacoma Link:** The Tacoma Link system will expand 2.4 miles from the Theater District to the Stadium and Hilltop district.

**Link Light Rail Capital Program:** Approximately 36 additional miles of voter approved light rail will be added to the 19 miles of light rail in service (Sea-Tac to UW.) To the north light rail will extend from the University of Washington through Northgate with a terminus in Lynnwood, to the south from Sea-Tac International Airport to Kent Des Moines Road, with preliminary funding for design through to South 272<sup>nd</sup> Street or the Federal Way Transit Center, and to the east from Seattle through Bellevue to the Overlake Transit Center area of Redmond. Light rail trains will provide service to 19 new stations up to 20 hours a day with a frequency of every 6 minutes during peak commuting periods.

**Transit Operations:** Transit operations costs include service improvements under the Sound Move program (e.g., Sounder extension to Lakewood, Link light rail from UW to Sea-Tac) as well as expanding existing and additional new services approved by the voters in November, 2008. Note that Operating and Maintenance costs related to new service will not be incurred until the new service becomes operational.

**System-wide Activities:** The Financial Plan includes funding to support projects that impact the system at large such as research and technology, fares administration, future phase planning, agency administration and other expenditures that are essential to planning for and maintenance of a regional transit system consistent with that approved by voters.

**Debt Service:** The Financial Plan anticipates future issuances of 30-year bonds to provide sufficient financial capacity needed to complete all voter-approved transit programs. Debt service reflects all costs associated with issuing and retiring debt for the 2009 through 2023 time period. Debt service will continue beyond 2023 until all debt is fully retired. Sound Transit financial policies include provision for accelerated retirement of bonds once system expansion capital program is completed.

**Asset Management:** The Financial Plan provides for the cost of repair and replacement of key operating assets. Annual costs of future asset replacement or mid-life maintenance activity is calculated for each class of asset based on; original cost, in-service date, estimated asset life, in addition to other financial factors.

**Contribution to Reserves:** The Financial Plan provides funding for the following three financial reserves: (1) Bond reserves, (2) Two-months' operations & maintenance reserve, and (3) Capital replacement / mid-life maintenance reserve of \$300 million.

### APPENDICES

- A. Sound Transit Sources and Uses Summary (2009 through 2023)
- **B. Sound Transit Operating Statement**
- C. Sound Transit Sources and Uses Statement
- D. Sound Transit Cost Indices



Financial Plan - Sources & Uses Summary	y			2009	through	2023	
(YOE Dollars in Millions)						<b>e</b> .	
Sources of Funds	Snohomish	North King	South King	East King	Pierce	System Wide	Total
Sound Transit Tax Revenues	1,394	3,522	1,753	2,918	2,056	-	11,643
Grant Revenue - Federal / Local	702	1,445	184	304	217	1	2,853
Bond Proceeds	84	2,035	407	1,656	46	-	4,228
TIFIA Proceeds	93	160	279	798	-	-	1,330
Fares & Other Revenues	122	472	190	325	334	7	1,450
Interest Earnings	-	-	-	-	-	147	147
Total Sources	2,395	7,634	2,813	6,001	2,653	155	21,651
Uses of Funds							
Capital Expenditures							
Sounder Commuter Rail	64	-	110	0	1,087		1,261
Regional Express Bus	51	-	36	374	44		506
Link Light Rail	1,242	4,982	1,091	3,831	171		11,317
Service Delivery	44	24	48	103	84	3	307
Agency Admin	-	0	-	-	-	39	39
System-wide Activities	8	34	21	24	3	228	319
Total Capital	1,411	5,040	1,307	4,332	1,389	270	13,748
O & M Expenditures							
Sounder Commuter Rail	141	-	271	-	338		750
ST Express Bus	277	-	187	894	437		1,796
Link Light Rail	13	991	342	32	92		1,471
System-wide Activities	56	132	41	183	30	440	881
Total O&M	487	1,123	842	1,109	897	440	4,898
Rehab and Replacement	107	2	114	180	78	23	503
Debt Service	137	1,178	422	422	138	-	2,297
TIFIA Debt Service	-	-	-	-	-	-	-
Bond Reserve Deposits	7	113	30	58	7	-	216
O&M Reserve Contributions	8	17	14	19	15	-	72
Capital Reserve Contributions	42	41	45	56	75	4	264
System-wide Activities	64	163	79	133	95	(535)	-
Change in Cash	132	(45)	(40)	(308)	) (41)	(47)	(349)
Total Uses	2,395	7,634	2,813	6,001	2,653	155	21,651



2016 FINAL Financial Plan

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
REVENUES															
ST District Taxes															
Sales & Use Tax	273,286	393,909	500,619	525,431	545,454	586,387	632,175	687,141	716,589	746,214	768,803	793,238	822,337	853,404	887,846
Motor Vehicle Excise Tax (MVET)	70,927	64,645	66,476	65,429	66,249	68,576	73,581	78,803	82,464	85,046	87,315	89,719	92,088	94,678	97,405
Rental Car Tax	2,554	2,784	2,469	2,490	1,979	2,759	3,050	3,250	3,264	3,362	3,463	3,567	3,674	3,784	3,897
TOTAL TAX REVENUES	346,767	461,338	569,564	593,350	613,681	657,721	708,806	769,194	802,317	834,621	859,582	886,524	918,098	951,866	989,148
Fares & Other Operating Revenue															
Commuter Rail	8,482	9,615	7,794	8,768	10,113	10,468	11,385	12,403	42,723	76,706	24,580	12,641	12,580	12,799	13,247
Link Light Rail	2,791	5,001	10,164	12,549	14,621	16,934	18,799	20,063	52,017	32,377	37,795	85,703	56,755	61,726	78,523
Regional Express Bus	18,240	19,662	21,862	27,381	32,075	34,546	35,473	37,742	37,924	37,874	39,070	39,622	40,991	41,622	42,432
Tacoma Link	-	-	-	-	-	-	-	-	10,266	10,812	10,822	10,822	10,832	1,049	1,841
System-Wide	1,361	121	205	2,368	1,007	971	1,075	1,114	-	-	-	-	-	-	-
TOTAL FARES & OTHER OPERATING REVENUE	30,874	34,400	40,026	51,067	57,816	62,919	66,732	71,322	142,930	157,770	112,267	148,788	121,157	117,196	136,044
INTEREST EARNINGS	23,445	12,360	14,122	20,875	(3,054)	7,974	4,361	8,994	19,538	14,370	4,575	6,703	8,129	9,107	9,442
INTEREST EARNINGS	23,443	12,300	14,122	20,075	(3,034)	1,714	4,301	0,774	17,550	14,370	4,373	0,703	0,127	7,107	7,442
TOTAL OPERATING REVENUES	401,085	508,098	623,712	665,291	668,443	728,614	779,899	849,510	964,785	1,006,761	976,424	1,042,015	1,047,384	1,078,169	1,134,634
OPERATING EXPENSES															
Operating & Maintenance Costs															
Commuter Rail	32,792	37,787	33,285	32,566	33,571	37,013	38,899	40,626	52,764	55,850	59,143	60,770	63,120	65,646	67,782
Link Like Rail	9,374	30,684	68,596	60,098	56,415	55,132	60,465	64,051	99,665	104,612	107,759	110,836	117,686	137,165	172,720
Regional Express Bus	81,862	85,144	96,326	96,596	101,483	104,091	108,129	108,063	133,904	138,141	138,199	141,590	140,364	145,054	149,863
System-wide	36,434	23,876	23,802	23,611	25,439	28,746	37,213	27,365	75,511	84,995	88,911	90,126	89,309	83,333	63,426
TOTAL OPERATING EXPENSES	160,463	177,492	222,009	212,871	216,908	224,982	244,706	240,105	361,844	383,599	394,012	403,323	410,480	431,199	453,791
NET OPERATING INCOME	240.623	330.606	401.703	452.420	451.535	503,632	535,193	609.405	602.942	623,162	582.412	638.693	636.904	646.971	680,843
	,					,									
DEBT SERVICE															
Principal & Interest	75,941	83,007	78,819	89,149	81,199	99,181	98,913	101,237	113,929	116,666	136,799	199,735	242,228	271,776	280,582
NET INCOME	164.682	247,599	322.884	363,271			436,280						394.677	375.195	400,261



2016 FINAL Financial Plan

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
REVENUES														
ST District Taxes														
Sales & Use Tax	922,409	959,870	999,689	1,041,744	1,084,829	1,126,459	1,170,321	1,216,865	1,266,922	1,319,979	1,375,728	1,433,822	1,494,561	1,557,625
Motor Vehicle Excise Tax (MVET)	100,408	103,511	106,882	110,548	114,452	118,492		-	-		-		-	
Rental Car Tax	4,014	4,135	4,259	4,386	4,518	4,654	4,793	4,937	5,085	5,238	5,395	5,557	5,723	5,895
TOTAL TAX REVENUES	1,026,831	1,067,516	1,110,830	1,156,679	1,203,798	1,249,604	1,175,114	1,221,802	1,272,007	1,325,217	1,381,123	1,439,378	1,500,284	1,563,520
Fares & Other Operating Revenue														
Commuter Rail	13,711	14,190	14,686	15,199	15,729	16,277	16,846	18,273	18,912	19,571	20,257	20,964	23,068	23,414
Link Light Rail	84,897	98,102	98,247	99,628	130,212	126,503	108,304	109,997	111,690	113,384	115,077	125,881	127,705	129,668
Regional Express Bus	29,237	22,716	25,165	28,328	28,763	29,919	30,493	30,962	23,948	23,983	24,019	24,056	24,094	24,133
Tacoma Link	1,990	2,020	2,049	2,079	2,109	2,138	2,178	2,208	2,237	2,277	2,307	2,346	2,376	2,416
System-Wide	-	-	-		-	-	-	-	-	-	-	-	-	-
TOTAL FARES & OTHER OPERATING REVENUE	129,835	137,028	140,148	145,235	176,813	174,837	157,821	161,440	156,788	159,215	161,660	173,248	177,242	179,630
	0.500	10.293	11.890	1/ 547	04.004	20.0/1	40.450	40.010	F( 00)	/5.745	73.879	83.229	00 704	105 011
INTEREST EARNINGS	9,598	10,293	11,890	16,547	24,004	32,861	42,153	48,918	56,896	65,715	/3,8/9	83,229	92,784	105,911
TOTAL OPERATING REVENUES	1,166,264	1,214,837	1,262,868	1,318,461	1,404,615	1,457,302	1,375,088	1,432,160	1,485,691	1,550,148	1,616,661	1,695,855	1,770,311	1,849,062
OPERATING EXPENSES														
Operating & Maintenance Costs														
Commuter Rail	71,437	65,502	67,085	68,783	70,542	72,290	74,069	75,977	77,822	79,805	81,870	83,950	86,062	88,366
Link Like Rail	225,328	248,915	257,348	265,505	272,707	280,066	285,869	293,270	300,961	307,837	317,710	327,168	337,275	346,728
Regional Express Bus	108,576	112,078	115,272	118,578	121,961	125,427	128,984	132,650	104,019	106,964	110,013	113,165	116,424	119,799
System-wide	115,783	52,801	47,934	47,415	48,152	48,196	48,489	48,731	50,300	52,509	53,382	54,907	54,129	57,598
TOTAL OPERATING EXPENSES						525.979	537.410	550.628	533,102	547.115	562.975	579,189	593.890	612,491
	521,124	479,295	487,639	500,281	513,362	525,979	557,410	330,020	555,102	547,115	302,773	579,109	242,040	012,491
						,		,	, .					
NET OPERATING INCOME	521,124 645,139	479,295 735,542	487,639 775,229	500,281 818,180	891,253	931,324	837,677	881,532	952,589	1,003,033	1,053,686	1,116,666	1,176,420	1,236,571
NET OPERATING INCOME DEBT SERVICE						,		,	, .					
						,		,	, .					



2016 FINAL Financial Plan

	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
REVENUES														
ST District Taxes														
Sales & Use Tax	1,623,061	1,691,222	1,762,562	1,837,266	1,915,210	1,996,477	2,081,210	2,169,558	2,261,677	2,357,727	2,457,878	2,562,305	2,671,193	2,784,732
Motor Vehicle Excise Tax (MVET)	-							-						
Rental Car Tax	6,072	6,254	6,442	6,635	6,834	7,039	7,250	7,468	7,692	7,922	8,160	8,405	8,657	8,917
TOTAL TAX REVENUES	1,629,133	1,697,477	1,769,004	1,843,901	1,922,044	2,003,516	2,088,460	2,177,026	2,269,368	2,365,649	2,466,038	2,570,710	2,679,850	2,793,649
Fares & Other Operating Revenue														
Commuter Rail	23,766	24,123	24,486	26,619	26,887	27,158	27,431	27,707	31,697	32,016	32,338	32,664	32,993	37,225
Link Light Rail	141,022	143,126	145,230	147,485	149,784	152,124	154,495	156,895	164,630	167,172	169,746	172,350	174,986	177,652
Regional Express Bus	24,172	24,213	24,254	24,297	23,772	23,816	23,862	23,908	23,956	24,004	24,054	24,105	24,157	24,730
Tacoma Link	2,445	2,485	2,525	2,564	2,604	2,643	2,683	2,723	2,762	2,802	2,841	2,881	2,921	2,960
System-Wide	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL FARES & OTHER OPERATING REVENUE	191,406	193,947	196,495	200,964	203,046	205,741	208,470	211,233	223,045	225,995	228,979	232,000	235,056	242,568
INTEREST EARNINGS	116,932	129,906	145,332	152,335	161,248	173,175	193,567	212,640	237,271	265,681	297,107	326,843	353,732	381,174
TOTAL OPERATING REVENUES	1,937,472	2,021,330	2,110,832	2,197,201	2,286,337	2,382,432	2,490,497	2,600,898	2,729,685	2,857,325	2,992,125	3,129,553	3,268,638	3,417,390
OPERATING EXPENSES														
Operating & Maintenance Costs														
Commuter Rail	90,601	92,984	95,475	97,966	100,527	103,160	105,868	108,652	111,515	114,459	117,486	120,598	123,798	127,089
Link Like Rail	356,071	364,144	373,209	381,915	390,832	399,965	409,318	418,898	428,710	438,761	449,054	459,598	470,398	481,460
Regional Express Bus	123,298	126,918	130,656	133,808	133,091	135,596	138,152	140,758	143,416	146,127	148,892	151,713	154,589	157,523
System-wide	58,342	58,219	66,780	67,328	65,939	46,118	43,644	48,235	48,415	49,183	53,522	58,760	61,582	62,529
TOTAL OPERATING EXPENSES	628,312	642,265	666,120	681,017	690,389	684,839	696,982	716,544	732,057	748,529	768,954	790,668	810,367	828,601
NET OPERATING INCOME	1,309,159	1,379,064	1,444,712	1,516,183	1,595,948	1,697,593	1,793,515	1,884,355	1,997,628	2,108,796	2,223,170	2,338,885	2,458,271	2,588,789
DEBT SERVICE														
Principal & Interest	369,871	369,869	369,869	369,871	369,869	369,870	369,869	369,869	369,868	369,870	369,868	369,870	369,872	369,870
NET INCOME	939,288	1,009,195	1,074,843	1,146,313	1,226,079	1,327,723	1,423,647	1,514,486	1,627,760	1,738,926	1,853,302	1,969,015	2,088,399	2,218,919



2016 FINAL Financial Plan

	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
REVENUES										
ST District Taxes										
Sales & Use Tax	2,903,123	3,026,574	3,155,302	3,289,535	3,429,509	3,575,470	3,727,678	3,886,399	4,051,916	4,224,519
Motor Vehicle Excise Tax (MVET)	-	-	-	-	-	-	-	-	-	-
Rental Car Tax	9,184	9,460	9,744	10,036	10,337	10,647	10,967	11,296	11,634	11,983
TOTAL TAX REVENUES	2,912,307	3,036,034	3,165,046	3,299,571	3,439,846	3,586,118	3,738,644	3,897,695	4,063,550	4,236,503
Fares & Other Operating Revenue										
Commuter Rail	37,600	37,978	38,360	38,746	41,186	41,600	42,019	42,441	42,868	47,608
Link Light Rail	186,161	188,978	191,826	194,707	197,619	200,564	209,895	212,997	216,133	219,302
Regional Express Bus	24,785	24,840	24,897	24,956	25,535	25,596	25,659	25,723	25,788	25,855
Tacoma Link	3,000	3,039	3,079	3,119	3,158	3,198	3,237	3,277	3,317	3,356
System-Wide	-	-	-	-	-	-	-	-	-	-
TOTAL FARES & OTHER OPERATING REVENUE	251,545	254,835	258,162	261,527	267,498	270,958	280,809	284,438	288,106	296,121
INTEREST EARNINGS	412,015	448,336	493,486	542,229	591,536	641,565	695,200	753,618	819,854	-
TOTAL OPERATING REVENUES	3,575,867	3,739,205	3,916,694	4,103,327	4,298,880	4,498,641	4,714,654	4,935,751	5,171,510	4,532,623
OPERATING EXPENSES										
Operating & Maintenance Costs										
Commuter Rail	130,472	133,951	137,528	141,206	144,988	148,877	152,876	156,988	161,216	165,563
Link Like Rail	492,791	504,398	516,287	528,466	540,942	553,722	566,814	580,226	593,965	608,040
Regional Express Bus	160,515	163,568	166,680	169,855	173,094	176,397	179,765	183,201	186,706	190,280
System-wide	63,781	61,393	62,782	68,557	72,332	74,172	75,471	74,776	76,017	78,778
TOTAL OPERATING EXPENSES	847,559	863,309	883,277	908,085	931,356	953,168	974,927	995,191	1,017,903	1,042,661
NET OPERATING INCOME	2,728,308	2,875,896	3,033,416	3,195,242	3,367,524	3,545,473	3,739,727	3,940,560	4,153,607	3,489,962
DEBT SERVICE										
DEBT SERVICE Principal & Interest	258,025	241,253	241,254	97,330	97,330	97,330	97,330	97,280	-	-



#### SOURCES & USES 2016 FINAL Financial Plan

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
SOURCES																						
Tax Revenue	346,767	461,338	569,564	593,350	613,681	657,721	708,806	769,194	802,317	834,621	859,582	886,524	918,098	951,866	989,148	1,026,831	1,067,516	1,110,830	1,156,679	1,203,798	1,249,604	1,175,114
Fare Revenue	25,657	29,048	37,589	46,117	54,145	56,944	60,180	65,426	73,455	82,335	87,017	89,226	92,118	98,125	124,615	128,323	135,483	138,567	143,618	146,205	153,507	156,102
Other Operating Revenue	5,217	5,352	2,437	4,950	3,671	5,975	6,553	5,896	69,474	75,435	25,250	59,562	29,038	19,071	11,429	1,511	1,545	1,580	1,617	30,607	21,330	1,719
Capital Grant Drawdowns	103,257	100,534	104,658	118,062	89,154	81,656	90,201	61,943	34,263	150,000	183,000	200,000	200,000	175,000	175,000	122,728	-		-	-	-	-
FTA Formula Fund Drawdowns	60,681	65,272	56,940	55,250	42,265	67,462	105,328	90,907	80,483	47,793	51,453	60,224	51,015	60,536	55,458	75,982	54,992	71,314	60,555	78,715	72,664	84,356
Bond Proceeds (less issuance cost)	-	399,283		-		-		600,000		385,579	1,152,255	766,290	524,086	137,455	33,787	229,362				-		-
TIFIA Proceeds	-	-		-		-					-	234,591	482,578	369,628	131,513	111,689				-		-
Interest Earned	23,445	12,360	14,122	20,875	(3,054)	7,974	4,361	8,994	19,538	14,370	4,575	6,703	8,129	9,107	9,442	9,598	10,293	11,890	16,547	24,004	32,861	42,153
TOTAL SOURCES	565,023	1,073,188	785,309	838,604	799,862	877,732	975,428	1,602,360	1,079,531	1,590,134	2,363,131	2,303,121	2,305,064	1,820,788	1,530,393	1,706,025	1,269,829	1,334,183	1,379,016	1,483,331	1,529,967	1,459,444
USES																						
0020																						
Commuter Rail Capital Costs	57,238	63,745	90,810	94,310	105,554	92,149	55,747	61,617	155,655	157,296	36,871	34,072	44,421	69,715	50,854	148,381	76,538	80,912	14,816	-	-	
Light Rail Capital Costs	377,227	236,604	340,613	421,481	366,808	473,641	638,788	609,154	528,312	1,228,544	1,531,486	1,529,621	1,473,131	890,832	578,428	469,578	126,470	50,449	-	-	-	-
Regional Express Capital Costs	36,750	22,006	26,929	38,923	7,368	13,978	9,540	78,404	110,184	63,542	18,981	1,082	11,461	33,497	25,963	43,691	64,170	56,692	21,250	-		-
Service Delivery Capital Costs	22,482	6,690	46,772	32,606	40,806	2,570	31,079	6,483	23,714	44,664	36,394	5,240	2,073	23,619	806	3,004				-		-
Agency Admin Capital Costs	-	-	-	-	3,877	3.031	2,425	3,286	3,112	4,920	2,815	2,613	2,587	2,631	2,849	5,184				-		-
Systemwide Capital Costs	3,538	10,386	4,530	8,977	299	958	2,364	1,084	18,499	77,584	53,594	49,491	43,723	8,542	30,037	8,798	4,089	26,916	27,545	28,189	28,843	53,025
Systemmae Capital Costs	5,550	10,500	4,550	0,777	277	750	2,504	1,004	10,477	11,504	33,374	47,471	45,725	0,042	30,037	0,770	4,007	20,710	27,545	20,107	20,043	33,023
TOTAL CAPITAL PROGRAM	497,235	339,431	509,653	596,298	524,711	586,327	739,942	760,028	839,476	1,576,550	1,680,141	1,622,117	1,577,396	1,028,835	688,937	678,636	271,267	214,969	63,611	28,189	28,843	53,025
											,,											
Total O&M + NC Costs	160,463	177,492	509,653 222,009	596,298 212,871	524,711 216,908	586,327 224,982	739,942 244,706	760,028 240,105	361,844	383,599	394,012	403,323	410,480	431,199	453,791	521,124	479,295	487,639	500,281	513,362	525,979	537,410
Total O&M + NC Costs Rehab & Replacement Expenditures	160,463	177,492	222,009	212,871	216,908	224,982	244,706	240,105	361,844 27,766	383,599 10,972	394,012 67,030	403,323 20,919	410,480 35,828	431,199 75,574	453,791 100,872	521,124 164,413	479,295 89,696	487,639 36,313	500,281 72,908	513,362 129,614	525,979 141,214	537,410 161,358
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service	160,463	177,492 - 83,007							361,844	383,599	394,012	403,323	410,480	431,199	453,791	521,124	479,295	487,639	500,281	513,362	525,979 141,214 350,955	537,410 161,358 332,250
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service	160,463	177,492 - 83,007 -	222,009	212,871	216,908	224,982	244,706	240,105	361,844 27,766	383,599 10,972	394,012 67,030	403,323 20,919	410,480 35,828	431,199 75,574 271,776 -	453,791 100,872	521,124 164,413	479,295 89,696	487,639 36,313	500,281 72,908	513,362 129,614	525,979 141,214 350,955 18,914	537,410 161,358
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption	160,463	177,492 - 83,007 -	222,009	212,871	216,908 - 81,199 -	224,982 - 99,181 -	244,706	240,105	361,844 27,766	383,599 10,972 116,666 -	394,012 67,030 136,799	403,323 20,919 199,735 -	410,480 35,828 242,228 - -	431,199 75,574 271,776	453,791 100,872 280,582	521,124 164,413 314,029	479,295 89,696	487,639 36,313	500,281 72,908	513,362 129,614	525,979 141,214 350,955 18,914	537,410 161,358 332,250 37,622
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits	160,463 - 75,941 - -	177,492 - 83,007 - - 9,386	222,009 - 78,819 - -	212,871 - - 89,149 - -	216,908 - 81,199 - (26,355)	224,982 - 99,181 - - (972)	244,706 - 98,913 - -	240,105 - 101,237 - - -	361,844 27,766 113,929 - -	383,599 10,972 116,666 - - 27,913	394,012 67,030 136,799 - - 83,414	403,323 20,919 199,735 - - 55,473	410,480 35,828 242,228 - - 37,939	431,199 75,574 271,776 - - 9,951	453,791 100,872 280,582 - 2,446	521,124 164,413 314,029 - - 16,604	479,295 89,696	487,639 36,313 362,793 - -	500,281 72,908 369,868 - -	513,362 129,614 369,871 - -	525,979 141,214 350,955 18,914 -	537,410 161,358 332,250 37,622 -
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions	160,463 - 75,941 - - 2,243	177,492 - 83,007 - 9,386 7,879	222,009 - 78,819 - - - 1,365	212,871 89,149 - - 8,999	216,908 - 81,199 - (26,355) (2,180)	224,982 - 99,181 - - (972) 11,805	244,706 - 98,913 - - (4,664)	240,105 - 101,237 - - - 1,862	361,844 27,766 113,929 - - 20,290	383,599 10,972 116,666 -	394,012 67,030 136,799 - - 83,414 1,736	403,323 20,919 199,735 -	410,480 35,828 242,228 - -	431,199 75,574 271,776	453,791 100,872 280,582	521,124 164,413 314,029	479,295 89,696	487,639 36,313	500,281 72,908	513,362 129,614	525,979 141,214 350,955 18,914	537,410 161,358 332,250 37,622
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions	160,463 - 75,941 - - 2,243 21,904	177,492 - 83,007 - 9,386 7,879 24,273	222,009 78,819 - 1,365 24,273	212,871 	216,908 - 81,199 - (26,355) (2,180) 61,227	224,982 - 99,181 - (972) 11,805 45,290	244,706 - 98,913 - (4,664) 59,272	240,105 - 101,237 - - 1,862 4,112	361,844 27,766 113,929 - - - 20,290	383,599 10,972 116,666 - 27,913 3,626	394,012 67,030 136,799 - 83,414 1,736	403,323 20,919 199,735 - 55,473 1,552 -	410,480 35,828 242,228 - 37,939 1,193 -	431,199 75,574 271,776 - - 9,951 3,453 -	453,791 100,872 280,582 - 2,446 3,765	521,124 164,413 314,029 - 16,604 11,222	479,295 89,696 349,703 - - - - - -	487,639 36,313 362,793 - - - 1,391 -	500,281 72,908 369,868 - - - 2,107 -	513,362 129,614 369,871 - - - 2,180	525,979 141,214 350,955 18,914 - 2,103	537,410 161,358 332,250 37,622 - 1,905 -
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions	160,463 - 75,941 - - 2,243	177,492 - 83,007 - 9,386 7,879	222,009 - 78,819 - - - 1,365	212,871 89,149 - - 8,999	216,908 - 81,199 - (26,355) (2,180)	224,982 - 99,181 - - (972) 11,805	244,706 - 98,913 - - (4,664)	240,105 - 101,237 - - - 1,862	361,844 27,766 113,929 - - 20,290	383,599 10,972 116,666 - - 27,913	394,012 67,030 136,799 - - 83,414 1,736	403,323 20,919 199,735 - - 55,473	410,480 35,828 242,228 - - 37,939	431,199 75,574 271,776 - - 9,951	453,791 100,872 280,582 - 2,446	521,124 164,413 314,029 - - 16,604	479,295 89,696	487,639 36,313 362,793 - -	500,281 72,908 369,868 - -	513,362 129,614 369,871 - -	525,979 141,214 350,955 18,914 -	537,410 161,358 332,250 37,622 -
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions	160,463 - 75,941 - - 2,243 21,904	177,492 - 83,007 - 9,386 7,879 24,273	222,009 78,819 - 1,365 24,273	212,871 	216,908 - 81,199 - (26,355) (2,180) 61,227	224,982 - 99,181 - (972) 11,805 45,290	244,706 - 98,913 - (4,664) 59,272	240,105 - 101,237 - - 1,862 4,112	361,844 27,766 113,929 - - - 20,290	383,599 10,972 116,666 - 27,913 3,626	394,012 67,030 136,799 - 83,414 1,736	403,323 20,919 199,735 - 55,473 1,552 -	410,480 35,828 242,228 - 37,939 1,193 -	431,199 75,574 271,776 - - 9,951 3,453 -	453,791 100,872 280,582 - 2,446 3,765	521,124 164,413 314,029 - 16,604 11,222	479,295 89,696 349,703 - - - - - -	487,639 36,313 362,793 - - - 1,391 -	500,281 72,908 369,868 - - - 2,107 -	513,362 129,614 369,871 - - - 2,180	525,979 141,214 350,955 18,914 - 2,103	537,410 161,358 332,250 37,622 - 1,905 - 335,873
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions Increase (decrease) in cash	160,463 - - - - 2,243 21,904 (192,763)	177,492 - 83,007 - 9,386 7,879 24,273 431,720	222,009 78,819 - 1,365 24,273 (50,809)	212,871 - - - - - - - - - - - - - - - - - - -	216,908 - 81,199 - (26,355) (2,180) 61,227 (55,648)	224,982 - 99,181 - (972) 11,805 45,290 (88,881)	244,706 - 98,913 - - (4,664) 59,272 (162,741)	240,105 101,237 - - 1,862 4,112 495,016	361,844 27,766 113,929 - - 20,290 - (283,774)	383,599 10,972 116,666 - 27,913 3,626 - (529,192)	394,012 67,030 136,799 - 83,414 1,736 - (0)	403,323 20,919 199,735 - 55,473 1,552 - 2	410,480 35,828 242,228 - 37,939 1,193 - 0	431,199 75,574 271,776 - 9,951 3,453 - 0	453,791 100,872 280,582 - 2,446 3,765 - (1)	521,124 164,413 314,029 - - 16,604 11,222 - (3)	479,295 89,696 349,703 - - - - 79,867	487,639 36,313 362,793 - - 1,391 - 231,078	500,281 72,908 369,868 - - 2,107 - 370,241	513,362 129,614 369,871 - - 2,180 - 440,113	525,979 141,214 350,955 18,914 - 2,103 - 461,960	537,410 161,358 332,250 37,622 - 1,905 -
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions Increase (decrease) in cash	160,463 - - - - 2,243 21,904 (192,763)	177,492 - 83,007 - 9,386 7,879 24,273 431,720	222,009 78,819 - 1,365 24,273 (50,809)	212,871 - - - - - - - - - - - - - - - - - - -	216,908 - 81,199 - (26,355) (2,180) 61,227 (55,648)	224,982 - 99,181 - (972) 11,805 45,290 (88,881)	244,706 - 98,913 - - (4,664) 59,272 (162,741)	240,105 101,237 - - 1,862 4,112 495,016	361,844 27,766 113,929 - - 20,290 - (283,774)	383,599 10,972 116,666 - 27,913 3,626 - (529,192)	394,012 67,030 136,799 - 83,414 1,736 - (0)	403,323 20,919 199,735 - 55,473 1,552 - 2	410,480 35,828 242,228 - 37,939 1,193 - 0	431,199 75,574 271,776 - 9,951 3,453 - 0	453,791 100,872 280,582 - 2,446 3,765 - (1)	521,124 164,413 314,029 - - 16,604 11,222 - (3)	479,295 89,696 349,703 - - - - 79,867	487,639 36,313 362,793 - - 1,391 - 231,078	500,281 72,908 369,868 - - 2,107 - 370,241	513,362 129,614 369,871 - - 2,180 - 440,113	525,979 141,214 350,955 18,914 - 2,103 - 461,960	537,410 161,358 332,250 37,622 - 1,905 - 335,873
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions Increase (decrease) in cash <b>TOTAL USES</b>	160,463 - - - - - - - - - - - - - - - - - - -	177,492 83,007 - 9,386 7,879 24,273 431,720 1,073,188	222,009 78,819 1,365 24,273 (50,809) 785,309	212,871 - - 89,149 - - - 8,999 45,862 (114,575) 838,604	216,908 81,199 (26,355) (2,180) 61,227 (55,648) 799,862	224,982 - 99,181 - (972) 11,805 45,290 (88,881) 877,732	244,706 - 98,913 - - (4,664) 59,272 (162,741) 975,428	240,105 - 101,237 - 1,862 4,112 495,016 1,602,360	361,844 27,766 113,929 - - 20,290 - (283,774) 1,079,531	383,599 10,972 116,666 - 27,913 3,626 - (529,192) 1,590,134	394,012 67,030 136,799 83,414 1,736 - (0) 2,363,131	403,323 20,919 199,735 55,473 1,552 2 2,303,121	410,480 35,828 242,228 37,939 1,193 0 2,305,064	431,199 75,574 271,776	453,791 100,872 280,582 - 2,446 3,765 - (1) 1,530,393	521,124 164,413 314,029 16,604 11,222 (3) 1,706,025	479,295 89,696 349,703 - - - 79,867 1,269,829	487,639 36,313 362,793 - 1,391 - 231,078 1,334,183	500,281 72,908 369,868 - 2,107 - 370,241 1,379,016	513,362 129,614 369,871 - 2,180 - 440,113 1,483,331	525,979 141,214 350,955 18,914 2,103 - 461,960 1,529,967	537,410 161,358 332,250 37,622 - 1,905 - 335,873 1,459,444
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions Increase (decrease) in cash <b>TOTAL USES</b> Bond Reserve Fund Balance END	160,463 - - - - 2,243 21,904 (192,763)	177,492 - 83,007 - - 9,386 7,879 24,273 431,720 1,073,188 101,519	222,009 78,819 - 1,365 24,273 (50,809)	212,871 - - - - - - - - - - - - - - - - - - -	216,908 - 81,199 - (26,355) (2,180) 61,227 (55,648)	224,982 - 99,181 - (972) 11,805 45,290 (88,881) 877,732	244,706 - - - - - - - - - - - - - - - - - - -	240,105 101,237	361,844 27,766 113,929 - - - (283,774) - (283,774) - (283,774) - (283,774) - (283,774) -	383,599 10,972 116,66 - - - (529,192) 1,590,134 102,105	394,012 67,030 136,799 - 83,414 1,736 - (0)	403,323 20,919 199,735 - 55,473 1,552 - 2	410,480 35,828 242,228 37,939 1,193 - 0 2,305,064 278,931	431,199 75,574 271,776 - 9,951 3,453 - 0	453,791 100,872 280,582 - 2,446 3,765 - (1) 1,530,393 291,327	521,124 164,413 314,029 16,604 11,222	479,295 89,696 349,703 - - - 79,867 1,269,829 307,931	487,639 36,313 362,793 - - 1,391 - 231,078	500,281 72,908 369,868 - - 2,107 - 370,241	513,362 129,614 369,871 - - 2,180 - 440,113 1,483,331 307,931	525,979 141,214 350,951 18,914 - - 2,103 - 461,960 1,529,967 307,931	537,410 161,358 332,250 37,622 - 1,905 - 335,873 1,459,444 307,931
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions Increase (decrease) in cash <b>TOTAL USES</b>	160,463 - - - - - - - - - - - - - - - - - - -	177,492 83,007 - 9,386 7,879 24,273 431,720 1,073,188	222,009 78,819 1,365 24,273 (50,809) 785,309	212,871 - - 89,149 - - - 8,999 45,862 (114,575) 838,604	216,908 81,199 (26,355) (2,180) 61,227 (55,648) 799,862	224,982 - 99,181 - (972) 11,805 45,290 (88,881) 877,732	244,706 - 98,913 - (4,664) 59,272 (162,741) 975,428	240,105 - 101,237 - 1,862 4,112 495,016 1,602,360	361,844 27,766 113,929 - - 20,290 - (283,774) 1,079,531	383,599 10,972 116,666 - 27,913 3,626 - (529,192) 1,590,134	394,012 67,030 136,799 83,414 1,736 - (0) 2,363,131	403,323 20,919 199,735 55,473 1,552 2 2,303,121	410,480 35,828 242,228 37,939 1,193 0 2,305,064	431,199 75,574 271,776	453,791 100,872 280,582 - 2,446 3,765 - (1) 1,530,393	521,124 164,413 314,029 16,604 11,222 (3) 1,706,025	479,295 89,696 349,703 - - - - 79,867 1,269,829	487,639 36,313 362,793 - 1,391 - 231,078 1,334,183	500,281 72,908 369,868 - 2,107 - 370,241 1,379,016	513,362 129,614 369,871 - 2,180 - 440,113 1,483,331	525,979 141,214 350,955 18,914 2,103 - 461,960 1,529,967	537,410 161,358 332,250 37,622 - 1,905 - 335,873 1,459,444
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions Increase (decrease) in cash <b>TOTAL USES</b> Bond Reserve Fund Balance END	160,463 - 75,941 - - 2,243 21,904 (192,763) 565,023	177,492 - 83,007 - - 9,386 7,879 24,273 431,720 1,073,188 101,519	222,009 78,819 1,365 24,273 (50,809) 785,309	212,871 - - 89,149 - - - 8,999 45,862 (114,575) 838,604	216,908	224,982 - 99,181 - (972) 11,805 45,290 (88,881) 877,732	244,706 - - - - - - - - - - - - - - - - - - -	240,105 101,237	361,844 27,766 113,929 - - - (283,774) - (283,774) - (283,774) - (283,774) - (283,774) -	383,599 10,972 116,66 - - - (529,192) 1,590,134 102,105	394,012 67,030 136,799  83,414 1,736  (0) 2,363,131 185,518	403.323 20,919 199,735 - 55,473 1,552 - 2 2,303,121 240,991	410,480 35,828 242,228 37,939 1,193 - 0 2,305,064 278,931	431,199 75,574 271,776 9,951 3,453 0 1,820,788 288,881	453,791 100,872 280,582 - 2,446 3,765 - (1) 1,530,393 291,327	521,124 164,413 314,029 16,604 11,222	479,295 89,696 349,703 - - - 79,867 1,269,829 307,931	487,639 36,313 362,793 - - - 231,078 1,334,183 307,931	500,281 72,908 369,868 - - 2,107 - 370,241 1,379,016 307,931	513,362 129,614 369,871 - - 2,180 - 440,113 1,483,331 307,931	525,979 141,214 350,951 18,914 - - 2,103 - 461,960 1,529,967 307,931	537,410 161,358 332,250 37,622 - 1,905 - 335,873 1,459,444 307,931
Total O&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions Increase (decrease) in cash <b>TOTAL USES</b> Bond Reserve Fund Balance END O&M Reserve Fund Balance END	160,463 - 75,941 -	177,492 - 83,007 - 9,386 7,879 24,273 431,720 1,073,188 101,519 35,772	222,009 78,819 1,365 24,273 (50,809) 785,309 101,519 37,137	212,871 - - 89,149 - - - 8,999 45,862 (114,575) 838,604 101,519 46,135	216,908 81,199 (26,355) (2,180) 61,227 (55,648) 799,862 75,164 43,955	224,982 - - 99,181 - (972) 11,805 45,290 (88,881) 877,732 74,192 55,760	244,706 - - 98,913 - - (4,664) 59,272 (162,741) 975,428 74,192 51,096	240,105 	361,844 27,766 113,929 - 20,290 - (283,774) 1,079,531 74,192 73,248	383,599 10,972 116,666 - - - - - - - - - - - - - - - - -	394,012 67,030 136,799 - - 83,414 1,736 - (0) 2,363,131 185,518 78,609	403,323 20,919 199,735 -	410,480 35,828 242,228	431,199 75,574 271,776 - - 9,951 3,453 - 0 1,820,788 288,881 84,807	453,791 100,872 280,582 2,446 3,765 - (1) 1,530,393 291,327 88,573	521,124 164,413 314,029	479,295 89,696 349,070 - - - 79,867 1,269,829 307,931 99,795	487,639 36,313 362,793 - - - - - - - - - - - - - - - - - - -	500,281 72,908 369,868 - - 2,107 - 370,241 1,379,016 307,931 103,292	513,362 129,614 369,871 - 2,180 - 440,113 1,483,331 307,931 105,473	525,979 141,214 350,955 18,914 2,103 461,960 1,529,967 307,931 107,575	537,410 161,358 332,250 37,622 - 1,905 - 335,873 1,459,444 307,931 109,481
Total Q&M + NC Costs Rehab & Replacement Expenditures Scheduled Debt Service TIFIA Debt Service Early Principal Redemption Bond Reserve Deposits O&M Reserve Contributions Capital Reserve Contributions Increase (decrease) in cash <b>TOTAL USES</b> Bond Reserve Fund Balance END O&M Reserve Fund Balance END Capital Reserve Balance END Capital Reserve Balance END	160,463 - 75,941 - - 2,243 21,904 (192,763) 565,023 92,133 27,893 44,505	177,492 - 83,007 - 9,386 7,879 24,273 431,720 1,073,188 101,519 35,772 68,778	222,009 76,819 1,365 24,273 (50,809) 785,309 101,519 37,137 93,241	212,871 - - - - - - - - - - - - - - - - - - -	216,908 81,199 (26,355) (2,180) 61,227 (55,648) 799,862 75,164 43,955 207,615	224,982 99,181 (972) 11,805 45,290 (88,881) 877,732 74,192 55,760 252,906	244,706 - - - - - - - - - - - - - - - - - - -	240,105 - 101,237 - 1,862 4,112 495,016 1,602,360 74,192 52,958 316,290	361,844 27,766 113,929 - 20,909 - (283,774) 1,079,531 74,192 73,248 324,197	383,599 10,972 116,666 - - - 27,913 3,626 - (529,192) 1,590,134 102,105 76,874 332,302	394,012 67,030 136,799 - - - (0) 2,363,131 185,518 78,609 340,610	403,323 20,919 199,735 - - 55,473 1,552 - 2 2,303,121 240,991 80,161 349,125	410,480 35,828 242,228	431,199 75,574 271,776 - - 9,951 3,453 - 0 <b>1,820,788</b> 288,881 84,807 366,799	453,791 100,872 280,582 - 2,446 3,765 - (1) 1,530,393 291,327 88,573 375,969	521,124 164,413 314,029 - - - (3) 1,706,025 307,931 99,795 385,369	479,295 89,696 349,703 - - - 79,867 1,269,829 307,931 99,795 395,003	487,639 36,313 362,793 1.391 - 231,078 1,334,183 307,931 101,185 404,878	500,281 72,908 369,868 - - 2,107 - 370,241 1,379,016 307,931 103,292 415,000	513,362 129,614 369,674 - - - 440,113 1,483,331 307,931 105,473 425,375	525,979 141,214 350,955 18,914 - - 461,960 1,529,967 307,931 107,575 436,009	537,410 161,358 332,250 37,622 - 1,905 - 335,873 1,459,444 307,931 109,481 446,909



#### SOURCES & USES 2016 FINAL Financial Plan

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
SOURCES																					
Tax Revenue	1,221,802	1,272,007	1,325,217	1,381,123	1,439,378	1,500,284	1,563,520	1,629,133	1,697,477	1,769,004	1,843,901	1,922,044	2,003,516	2,088,460	2,177,026	2,269,368	2,365,649	2,466,038	2,570,710	2,679,850	2,793,649
Fare Revenue	159,682	154,989	157,375	159,778	171,322	175,273	177,615	189,345	191,838	194,338	198,757	200,789	203,436	206,115	208,828	220,589	223,486	226,417	229,382	232,382	239,836
Other Operating Revenue	1,758	1,798	1,840	1,882	1,925	1,970	2,015	2,061	2,109	2,157	2,207	2,258	2,306	2,355	2,405	2,456	2,509	2,563	2,618	2,674	2,731
Capital Grant Drawdowns	-				-		-						-	-	-	-	-	-	-	-	-
FTA Formula Fund Drawdowns	76,401	88,131	80,118	91,869	81,628	93,394	83,168	94,950	84,739	96,537	86,342	80,987	80,987	80,987	80,987	80,987	80,987	80,987	80,987	80,987	80,987
Bond Proceeds (less issuance cost)	-				-		-						-	-	-	-	-	-	-	-	-
TIFIA Proceeds	-				-								-	-	-	-	-	-	-	-	-
Interest Earned	48,918	56,896	65,715	73,879	83,229	92,784	105,911	116,932	129,906	145,332	152,335	161,248	173,175	193,567	212,640	237,271	265,681	297,107	326,843	353,732	381,174
TOTAL SOURCES	1,508,562	1,573,822	1,630,266	1,708,531	1,777,483	1,863,705	1,932,230	2,032,421	2,106,069	2,207,368	2,283,543	2,367,324	2,463,419	2,571,484	2,681,885	2,810,671	2,938,312	3,073,111	3,210,540	3,349,625	3,498,377
USES																					
Commuter Rail Capital Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Light Rail Capital Costs	-	-		-	-	-	-		-		-		-	-	-	-	-	-	-	-	-
Regional Express Capital Costs	-	-		-	-	-	-		-		-		-	-	-	-	-	-	-	-	-
Service Delivery Capital Costs	-	-		-	-		-		-		-		-	-	-	-	-	-	-	-	-
Agency Admin Capital Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Systemwide Capital Costs	62,173	54,382	40,425	41,350	42,302	43,281	34,591	35,399	46,376	47,462	48,578	6,248	6,409	6,573	6,742	6,916	7,093	7,276	7,463	7,654	7,851
TOTAL CAPITAL PROGRAM	62,173	54,382	40,425	41,350	42,302	43,281	34,591	35,399	46,376	47,462	48,578	6,248	6,409	6,573	6,742	6,916	7,093	7,276	7,463	7,654	7,851
Total O&M + NC Costs	550,628	533,102	547,115	562,975	579,189	593,890	612,491	628,312	642,265	666,120	681,017	690,389	684,839	696,982	716,544	732,057	748,529	768,954	790,668	810,367	828,601
Rehab & Replacement Expenditures	127,557	175,473	265,283	267,497	309,032	200,911	365,003	350,799	276,826	774,770	739,080	704,834	382,707	544,938	357,958	281,981	242,208	441,051	698,997	790,494	750,737
Scheduled Debt Service	322,310	322,549	322,782	323,022	323,258	323,499	323,738	323,975	324,211	324,449	272,541	272,539	272,540	272,539	272,540	272,538	272,541	272,538	272,541	272,542	272,541
TIFIA Debt Service	47,562	47,324	47,086	46,848	46,610	46,372	46,134	45,896	45,658	45,420	97,330	97,330	97,330	97,330	97,330	97,330	97,330	97,330	97,330	97,330	97,330
Early Principal Redemption	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Bond Reserve Deposits	-	-	-	-	-		-		-			-	-	-	-	-	-	-	-	-	-
O&M Reserve Contributions	2,203	-	2,336	2,643	2,702	2,450	3,100	2,637	2,325	3,976	2,483	1,562	-	2,024	3,260	2,585	2,745	3,404	3,619	3,283	3,039
Capital Reserve Contributions	-	-		-	-	-	-		-				-	-	-	-	-	-	-	-	-
Increase (decrease) in cash	396,128	440,993	405,239	464,196	474,389	653,302	547,173	645,403	768,407	345,172	442,514	594,422	1,019,594	951,098	1,227,511	1,417,265	1,567,866	1,482,558	1,339,923	1,367,954	1,538,278
TOTAL USES	1,508,562	1,573,822	1,630,266	1,708,531	1,777,483	1,863,705	1,932,230	2,032,421	2,106,069	2,207,368	2,283,543	2,367,324	2,463,419	2,571,484	2,681,885	2,810,671	2,938,312	3,073,111	3,210,540	3,349,625	3,498,377
Bond Reserve Fund Balance END	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931	307,931
O&M Reserve Fund Balance END	111,684	111,684	114,019	116,662	119,365	121,815	124,915	127,552	129,877	133,853	136,336	137,898	137,898	139,922	143,182	145,768	148,513	151,917	155,536	158,820	161,858
Capital Reserve Balance END	458,082	469,534	481,272	493,304	505,637	518,278	531,235	544,516	558,129	572,082	586,384	601,043	616,069	631,471	647,258	663,439	680,025	697,026	714,452	732,313	750,621
General Fund Balance END	2,320,261	2,761,254	3,166,493	3,630,689	4,105,078	4,758,380	5,305,553	5,950,956	6,719,363	7,064,535	7,507,049	8,101,470	9,121,065	10,072,163	11,299,674	12,716,939	14,284,805	15,767,363	17,107,286	18,475,240	20,013,518
Total Fund Balance END	3,197,958	3,650,403	4,069,716	4,548,587	5,038,011	5,706,404	6,269,634	6,930,955	7,715,300	8,078,401	8,537,700	9,148,343	10,182,964	11,151,487	12,398,046	13,834,078	15,421,275	16,924,238	18,285,205	19,674,304	21,233,929



#### SOURCES & USES 2016 FINAL Financial Plan

(,	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
SOURCES										
Tax Revenue	2,912,307	3,036,034	3,165,046	3,299,571	3,439,846	3,586,118	3,738,644	3,897,695	4,063,550	4,236,503
Fare Revenue	248,755	251,985	255,250	258,552	264,459	267,852	277,636	281,196	284,793	292,736
Other Operating Revenue	2,790	2,851	2,912	2,975	3,040	3,106	3,173	3,242	3,313	3,385
Capital Grant Drawdowns	-									
FTA Formula Fund Drawdowns	80,987	80,987	80,987	80,987	80,987	80,987	80,987	80,987	80,987	80,987
Bond Proceeds (less issuance cost)	-	-	-	-	-	-	-	-	-	-
TIFIA Proceeds	-		-		-				-	-
Interest Earned	412,015	448,336	493,486	542,229	591,536	641,565	695,200	753,618	819,854	-
TOTAL SOURCES	3,656,854	3,820,192	3,997,680	4,184,314	4,379,867	4,579,627	4,795,641	5,016,738	5,252,497	4,613,610
USES										
Commuter Rail Capital Costs	-	-	-	-		-	-	-	-	
Light Rail Capital Costs	-				-				-	-
Regional Express Capital Costs	-	-	-	-	-	-	-	-	-	-
Service Delivery Capital Costs	-									
Agency Admin Capital Costs	-	-	-	-	-	-	-	-	-	-
Systemwide Capital Costs	8,053	8,260	8,472	8,690	8,913	9,142	9,377	9,618	9,865	10,118
TOTAL CAPITAL PROGRAM	8,053	8,260	8,472	8,690	8,913	9,142	9,377	9,618	9,865	10,118
Total O&M + NC Costs	847,559	863,309	883,277	908,085	931,356	953,168	974,927	995,191	1,017,903	1,042,661
Rehab & Replacement Expenditures	727,952	450,558	428,326	705,882	841,795	839,152	794,019	603,685	543,430	585,042
Scheduled Debt Service	160,696	143,923	143,924	-	-	-	-	(50)	-	
TIFIA Debt Service	97,330	97,330	97,330	97,330	97,330	97,330	97,330	97,330	-	
Early Principal Redemption	-	-		-	-	-			-	-
Bond Reserve Deposits	-	-	-	-	-	-	-	-	-	-
D&M Reserve Contributions	3,160	2,625	3,328	4,135	3,878	3,635	3,626	3,377	3,785	4,126
Capital Reserve Contributions	-									
Increase (decrease) in cash	1,812,105	2,254,187	2,433,024	2,460,192	2,496,595	2,677,200	2,916,362	3,307,588	3,677,514	-
TOTAL USES	3,656,854	3,820,192	3,997,680	4,184,314	4,379,867	4,579,627	4,795,641	5,016,738	5,252,497	1,641,948
				007.004	307,931	307.931	307,931	307,931	307,931	307,931
Bond Reserve Fund Balance END	307,931	307,931	307,931	307,931	201,421	307,731	307,731	307,731	507,751	007,701
	307,931 165,018	307,931 167,643	307,931 170,971	307,931 175,106	178,984	182,620	186,246	189,623	193,409	197,535
O&M Reserve Fund Balance END										
Bond Reserve Fund Balance END O&M Reserve Fund Balance END Capital Reserve Balance END General Fund Balance END	165,018	167,643	170,971	175,106	178,984	182,620	186,246	189,623	193,409	197,535



Cost Inflation Factors 2016 FINAL Financial Plan Appendices.xlsx																				
COST INDICES	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
SEATTLE CPI-U																				
(used for O&M, Other Capital)																				
CPI-U Index Conway August 2015	226.1	226.8	232.7	238.6	241.6	245.9	248.2	254.6	259.5	265.7	271.9	278.3	284.5	291.0	297.3	303.8	310.4	317.6	324.9	332.3
CPI-U Annual Growth Factor Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CPI-U Index w / contingency	226.1	226.8	232.7	238.6	241.6	245.9	248.2	254.6	259.5	265.7	271.9	278.3	284.5	291.0	297.3	303.8	310.4	317.6	324.9	332.3
CPI-U Annual Growth Factor	1.0056	1.0030	1.0261	1.0252	1.0126	1.0177	1.0095	1.0260	1.0190	1.0240	1.0234	1.0234	1.0225	1.0227	1.0217	1.0218	1.0219	1.0230	1.0230	1.0228
CPI-U Annual % Change	0.56%	0.30%	2.61%	2.52%	1.26%	1.77%	0.95%	2.60%	1.90%	2.40%	2.34%	2.34%	2.25%	2.27%	2.17%	2.18%	2.19%	2.30%	2.30%	2.28%
CPI-U Escalation Factor (from year 2007 dollars)	1.0492	1.0523	1.0798	1.1070	1.1210	1.1409	1.1517	1.1816	1.2040	1.2329	1.2617	1.2912	1.3202	1.3502	1.3796	1.4096	1.4405	1.4736	1.5075	1.5418
CPI-U Escalation Factor (from year 2014 dollars)	0.9826	1.0000	1.0095	1.0357	1.0553	1.0807	1.1060	1.1318	1.1572	1.1835	1.2092	1.2356	1.2626	1.2917	1.3214	1.3515	1.3819	1.4128	1.4444	1.4767
SEATTLE BCI/CCI																				
(used for Construction)																				
CCI Index (Parsons Brinkerhoff August 2015 High Forecast)	4,829.7	4,997.0	5,123.6	5,222.9	5,221.9	5,477.7	5,562.0	5,875.4	6,138.2	6,390.4	6,656.5	6,932.4	7,220.2	7,524.4	7,837.3	8,164.3	8,435.1	8,715.1	9,004.6	9,303.9
CCI Annual Growth Factor Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCI Index w / contingency	4,829.7	4,997.0	5,123.6	5,222.9	5,221.9	5,477.7	5,562.0	5,875.4	6,138.2	6,390.4	6,656.5	6,932.4	7,220.2	7,524.4	7,837.3	8,164.3	8,435.1	8,715.1	9,004.6	9,303.9
CCI Annual Growth Factor	1.0084	1.0346	1.0253	1.0194	0.9998	1.0490	1.0154	1.0563	1.0447	1.0411	1.0417	1.0414	1.0415	1.0421	1.0416	1.0417	1.0332	1.0332	1.0332	1.0332
CCI Annual % Change	0.84%	3.46%	2.53%	1.94%	-0.02%	4.90%	1.54%	5.63%	4.47%	4.11%	4.17%	4.14%	4.15%	4.21%	4.16%	4.17%	3.32%	3.32%	3.32%	3.32%
CCI Escalation Factor (from year 2007 dollars)	1.0609	1.0976	1.1254	1.1473	1.1470	1.2032	1.2218	1.2906	1.3483	1.4037	1.4622	1.5228	1.5860	1.6528	1.7215	1.7934	1.8529	1.9144	1.9779	2.0437
CCI Escalation Factor (from year 2014 dollars)	0.8817	0.9122	0.9354	0.9535	0.9533	1.0000	1.0154	1.0726	1.1206	1.1666	1.2152	1.2656	1.3181	1.3736	1.4308	1.4905	1.5399	1.5910	1.6439	1.6985
ST ROWI																				
(used for ROW)																				
ROWI Index (Internal Estimate)	161.0	161.9	164.8	168.0	184.4	202.8	212.3	232.6	241.6	251.3	261.4	271.8	282.7	294.2	306.0	318.3	331.1	345.5	359.3	373.6
ROWI Annual Growth Factor Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROWI Index w / contingency	161.0	161.9	164.8	168.0	184.4	202.8	212.3	232.6	241.6	251.3	261.4	271.8	282.7	294.2	306.0	318.3	331.1	345.5	359.3	373.6
ROWI Annual Growth Factor	0.8636	1.0058	1.0178	1.0197	1.0975	1.0999	1.0465	1.0960	1.0386	1.0401	1.0400	1.0400	1.0400	1.0407	1.0400	1.0401	1.0403	1.0434	1.0400	1.0400
ROWI Annual % Change	-14%	0.58%	1.78%	1.97%	9.75%	9.99%	4.65%	9.60%	3.86%	4.01%	4.00%	4.00%	4.00%	4.07%	4.00%	4.01%	4.03%	4.34%	4.00%	4.00%
ROWI Escalation Factor (from year 2007 dollars)	0.8945	0.8997	0.9157	0.9338	1.0248	1.1272	1.1796	1.2928	1.3428	1.3967	1.4525	1.5106	1.5710	1.6351	1.7005	1.7687	1.8400	1.9198	1.9966	2.0765
ROWI Escalation Factor (from year 2014 dollars)	0.7936	0.7982	0.8124	0.8284	0.9092	1.0000	1.0465	1.1469	1.1912	1.2391	1.2886	1.3402	1.3938	1.4505	1.5086	1.5691	1.6323	1.7032	1.7713	1.8421



Cost Inflation Factors

2016 FINAL Financial Plan Appendices.xlsx																		
COST INDICES	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
SEATTLE CPI-U																		
(used for O&M, Other Capital)																		
CPI-U Index Conway August 2015	339.8	347.4	355.1	363.1	371.3	379.7	388.4	397.3	406.4	415.8	425.4	435.2	445.3	455.7	466.2	477.0	488.1	499.4
CPI-U Annual Growth Factor Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CPI-U Index w / contingency	339.8	347.4	355.1	363.1	371.3	379.7	388.4	397.3	406.4	415.8	425.4	435.2	445.3	455.7	466.2	477.0	488.1	499.4
CPI-U Annual Growth Factor	1.0225	1.0224	1.0223	1.0224	1.0226	1.0227	1.0228	1.0229	1.0230	1.0231	1.0231	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232
CPI-U Annual % Change	2.25%	2.24%	2.23%	2.24%	2.26%	2.27%	2.28%	2.29%	2.30%	2.31%	2.31%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%
CPI-U Escalation Factor (from year 2007 dollars)	1.5766	1.6118	1.6478	1.6847	1.7228	1.7619	1.8021	1.8434	1.8858	1.9292	1.9738	2.0196	2.0665	2.1144	2.1634	2.2136	2.2650	2.3175
CPI-U Escalation Factor (from year 2014 dollars)	1.5101	1.5444	1.5796	1.6158	1.6529	1.6910	1.7301	1.7703	1.8113	1.8533	1.8963	1.9403	1.9853	2.0314	2.0785	2.1267	2.1760	2.2265
SEATTLE BCI/CCI																		
(used for Construction)																		
CCI Index (Parsons Brinkerhoff August 2015 High Forecast)	9,613.4	9.933.4	10,264.3	10,606.4	10,960.1	11.325.9	11.704.2	12.095.4	12,499.8	12.918.1	13.350.7	13.798.0	14.260.3	14,738,1	15.232.0	15.742.3	16.269.8	16,814.9
CCI Annual Growth Factor Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCI Index w / contingency	9.613.4	9.933.4	10.264.3	10.606.4	10.960.1	11.325.9	11.704.2	12.095.4	12.499.8	12.918.1	13.350.7	13.798.0	14.260.3	14,738,1	15.232.0	15.742.3	16.269.8	16,814.9
CCI Annual Growth Factor	1.0333	1.0333	1.0333	1.0333	1.0334	1.0334	1.0334	1.0334	1.0334	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335
CCI Annual % Change	3.33%	3.33%	3.33%	3.33%	3.34%	3.34%	3.34%	3.34%	3.34%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%
CCI Escalation Factor (from year 2007 dollars)	2.1117	2.1820	2.2546	2.3298	2.4075	2.4878	2.5709	2.6569	2.7457	2.8376	2.9326	3.0309	3.1324	3.2374	3.3458	3.4580	3.5738	3.6936
CCI Escalation Factor (from year 2014 dollars)	1.7550	1.8134	1.8738	1.9363	2.0009	2.0677	2.1367	2.2081	2.2820	2.3583	2.4373	2.5190	2.6034	2.6906	2.7807	2.8739	2.9702	3.0697
ST ROWI																		
(used for ROW)																		
ROWI Index (Internal Estimate)	388.6	404.1	420.3	437.2	454.9	473.3	492.4	512.2	532.8	554.2	576.5	599.7	620.9	642.9	665.6	689.1	713.5	738.7
ROWI Annual Growth Factor Contingency			420.5		-10-1.7	-10.0	7/2.4	J12.Z	- 332.0		570.5	577.1	020.7	042.7			7 I J.J	
ROWI Index w / contingency	- 388.6	- 404.1	420.3	437.2	454.9	473.3	- 492.4	- 512.2	532.8	- 554.2	576.5	- 599.7	620.9	- 642.9	- 665.6	- 689.1	713.5	738.7
ROWI Annual Growth Factor	1.0400	1.0400	1.0400	1.0402	1.0405	1.0404	1.0403	1.0402	1.0402	1.0402	1.0402	1.0402	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353
ROWI Annual % Change	4.00%	3.74%	3.79%	3.76%	3.58%	3.58%	3.56%	3.54%	3.54%	3.55%	3.55%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%
ROWI Escalation Factor (from year 2007 dollars)	2.1595	2.2459	2.3357	2.4297	2.5281	2.6304	2.7364	2.8465	2.9610	3.0801	3.2040	3.3328	3.4506	3.5726	3.6988	3.8296	3.9649	4.1051
ROWI Escalation Factor (from year 2014 dollars)	1.9158	1.9925	2.0722	2.4277	2.2429	2.3336	2.4276	2.5253	2.6269	2.7326	2.8424	2.9567	3.0612	3.1694	3.2815	3.3974	3.5175	3.6418
	1.7150	1.7725	2.0122	2.1000	2.2721	2.0000	2.7270	2.0200	2.0207	2.1520	2.0727	2.7507	5.0012	5.1074	5.2015	5.5774	5.5175	5.0410



Cost Inflation Factors														
2016 FINAL Financial Plan Appendices.xlsx COST INDICES	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
SEATTLE CPI-U														
(used for O&M, Other Capital)														
CPI-U Index Conway August 2015	511.0	522.9	535.0	547.4	560.1	573.1	586.4	600.0	613.9	628.1	642.7	657.6	672.9	688.5
CPI-U Annual Growth Factor Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CPI-U Index w / contingency	511.0	522.9	535.0	547.4	560.1	573.1	586.4	600.0	613.9	628.1	642.7	657.6	672.9	688.5
CPI-U Annual Growth Factor	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232	1.0232
CPI-U Annual % Change	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%
CPI-U Escalation Factor (from year 2007 dollars)	2.3713	2.4263	2.4825	2.5401	2.5990	2.6593	2.7210	2.7841	2.8487	2.9148	2.9824	3.0516	3.1223	3.1948
CPI-U Escalation Factor (from year 2014 dollars)	2.2781	2.3310	2.3851	2.4404	2.4970	2.5549	2.6142	2.6748	2.7368	2.8003	-	-	-	-
SEATTLE BCI/CCI														
(used for Construction)														
CCI Index (Parsons Brinkerhoff August 2015 High Forecast)	17,378.3	17,960.6	18,562.4	19,184.4	19,827.2	20,491.5	21,178.1	21,887.7	22,621.0	23,379.0	24,162.3	24,971.9	25,808.6	26,673.4
CCI Annual Growth Factor Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCI Index w / contingency	17,378.3	17,960.6	18,562.4	19,184.4	19,827.2	20,491.5	21,178.1	21,887.7	22,621.0	23,379.0	24,162.3	24,971.9	25,808.6	26,673.4
CCI Annual Growth Factor	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335	1.0335
CCI Annual % Change	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%	3.35%
CCI Escalation Factor (from year 2007 dollars)	3.8173	3.9452	4.0774	4.2140	3.6196	3.7409	3.8663	3.9958	4.1297	4.2680	4.4111	4.5589	4.7116	4.8695
CCI Escalation Factor (from year 2014 dollars)	3.1726	3.2789	3.3887	3.5023	3.6196	3.7409	3.8663	3.9958	4.1297	4.2680	4.4111	4.5589	4.7116	4.8695
ST ROWI														
(used for ROW)														
ROWI Index (Internal Estimate)	764.8	791.8	819.8	848.8	878.8	909.8	942.0	975.3	1,009.8	1,045.5	1,082.4	1,120.7	1,160.3	1,201.3
ROWI Annual Growth Factor Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROWI Index w / contingency	764.8	791.8	819.8	848.8	878.8	909.8	942.0	975.3	1,009.8	1,045.5	1,082.4	1,120.7	1,160.3	1,201.3
ROWI Annual Growth Factor	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353	1.0353
ROWI Annual % Change	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%	3.53%
ROWI Escalation Factor (from year 2007 dollars)	4.2502	4.4004	4.5559	4.7169	4.8837	5.0563	5.2350	5.4200	5.6116	5.8099	6.0153	6.2279	6.4480	6.6759
ROWI Escalation Factor (from year 2014 dollars)	3.7706	3.9038	4.0418	4.1847	4.3326	4.4857	4.6443	4.8084	4.9784	5.1543	5.3365	5.5251	5.7204	5.9226