

Tab Two

Alaskan Way Viaduct and Seawall Replacement Project

DRAFT: Finance Plan

What is the purpose of the Alaskan Way Viaduct Project finance plan?

Why was this plan developed?

On March 8, 2006, the Washington Legislature passed regional transportation governance legislation that requires the Washington State Department of Transportation (WSDOT) to prepare a project finance plan for the Alaskan Way Viaduct and Seawall Replacement Project (Viaduct Project) and the SR 520 Bridge Replacement and HOV Project (SR 520 Project).¹ It specifies that each plan “clearly identifies secured and anticipated fund sources, cash flow timing requirements, and project staging and phasing plans, if applicable...” The legislation also specifies that an Expert Review Panel (Panel) be appointed to provide independent review of the finance plans, and upon completion of the review, report their findings and recommendations to the Joint Transportation Committee (JTC), the Office of Financial Management (OFM), and the governor by September 1, 2006.

Upon receipt of the Panel’s findings and recommendations, the governor must determine whether the finance plans, based on current available information, are reasonable and sufficient to complete the projects as described in their Draft Environmental Impact Statements (EIS).

What information does this finance plan provide?

A finance plan for an infrastructure investment such as the Viaduct Project can take many forms, all with at least one common element — the matching of project funding sources with project expenditures (uses of funds). This document describes what we currently know about the sources and uses of funds for the Viaduct Project.

The terms “finance” and “financial” generally refer to obtaining funds or capital, typically through the use of borrowing or credit, to make an investment. A typical mega-project finance plan matches unique project sources with project-specific uses. Because most of this project’s

¹ Engrossed Substitute House Bill 2871 (HB 2871), 2006

financing elements are being handled at programmatic, rather than project-specific levels, this plan is not a typical finance plan.

WSDOT's release of a plan prior to completing the EIS is the second key difference between this plan and a typical finance plan. At the current stage of the EIS process (with the preferred alternative yet to be adopted), there are unknowns about the project details, several of which will affect available funding. From this perspective, the Viaduct Project "finance plan" may be best thought of as a *funding plan* focused on matching the secured and anticipated sources of funds with the identified project uses, based on current knowledge.

This document thus represents an early, conceptual stage of the financial planning process. It also serves as a precursor to a more formal financial plan required by the Federal Highway Administration (FHWA) that will be developed as the project approaches its environmental record of decision (ROD).

What is the purpose of the Expert Review Panel's assessment of this finance plan?

The Expert Review Panel is expected to review and assess the finance plan, confirming that:

- Appropriate financial assumptions have been made
- The plan — essentially the match between secured and anticipated funding sources, and accompanying cost estimates/uses of funds over time — is reasonable and sufficient
- The projects have identified critical actions or "commitments" needed from other parties for success
- The approach/processes/methods are sound, given the early stage of project financial planning and certain unknowns at this stage
- The plan has some flexibility to respond to/remains feasible should there be unexpected changes

What is being submitted for review?

The following financial plan elements have been incorporated into this document:

- General assumptions regarding an alternative for the Viaduct Project
- Estimated construction costs and the process by which they were derived
- Capital funding sources including underlying financial and uncertainty assumptions

- Estimated operations and maintenance (O&M) costs and potential O&M funding sources
- Sources of risk and contingency strategies

How does this finance plan differ from the one required by the Federal Highway Administration?

FHWA requires that a finance plan be developed for projects of \$100 million or greater that receive federal funding assistance. For projects of \$500 million or greater, the plan must also be approved by FHWA before construction commences and updated annually throughout the duration of construction.

Given the stage of the Viaduct Project in which a preferred alternative has not yet been selected, many of the variables that would typically be included in a detailed financial plan are either unavailable or very uncertain at this time. Such variables include:

- Finalized capital cost estimates (since the project scope remains under discussion)
- A complete list of secured funding sources to cover the estimated costs
- Estimated operations and maintenance costs over the term of the project debt (since this depends on the final project scope)
- A finalized construction schedule

Exhibit 1 summarizes similarities and differences between this finance plan and an FHWA financial plan.²

² US Federal Highway Administration. Accessed 21 April 2005. "Financial Plans."
<<http://www.fhwa.dot.gov/programadmin/mega/fplans.htm>>

Exhibit 1: Comparison between FHWA Financial Plan and Expert Review Panel Financial Plan

FHWA Financial Plan	Finance Plan for Panel’s Review
Differences	
Finance plan is a very detailed document, with relatively concrete cost and scheduling estimates.	Finance plan is general and intended to illustrate methods and processes to be used to develop a more detailed plan as cost, schedule and funding estimates become more certain.
Finance plan approval based on “likelihood” of realizing non-federal funding sources. Generally, non-federal sources are not acceptable if a public vote or state legislative action is required.	Finance plan considers feasibility of realizing non-federal funding sources, including those that may require a public ballot measure or additional legislative approval.
FHWA requires an Initial Finance Plan and requires annual updates during construction.	State Legislature requires this preliminary finance plan for review by the Panel.
An implementation plan is included.	Implementation plan details as known today are presented in a separate section of this notebook.
Plan addresses potential for unanticipated changes in expected revenue and the impact on the project.	The potential impact for unanticipated changes in expected revenue is discussed.
Cash flows of sources and uses of funds must be balanced	Plan considers and discusses options for closing the gap between sources and uses of funds.
Plan describes major responsibilities of various parties involved in the project and contains evidence of agreements or commitments.	Plan includes overview of parties involved and related agreements and commitments.
Plan describes how, specifically, the project fits into statewide plans.	Plan briefly describes how project fits into regional context and state funding program.
Similarities	
Plan reflects cost and revenue structure of the project and provides reasonable assurance that there will be sufficient financial resources available to implement and complete the project as planned.	Plan reflects cost and revenue structure of the project and provides all currently available information to support the sufficiency of financial resources available to implement and complete the project as currently anticipated.
Identified funding shortfalls are highlighted along with proposed resource solutions.	Identified funding shortfalls are highlighted with discussion of possible solutions.
Costs are in year of expenditure (YOE) dollars.	Costs are in YOE dollars.
Plan describes all funding sources for the project and clearly describes these funds as committed or anticipated amounts, with an evaluation of the likelihood of anticipated amounts being realized.	Plan describes all funding sources for the project and clearly describes these funds as committed or anticipated amounts, with an evaluation of the likelihood of anticipated amounts being realized.
Plan describes special agreements, laws, rules, or regulations to which the project is subject.	Plan describes special agreements, laws, rules, or regulations, which must be adopted for funding to be allocated.

How does the Viaduct Project fit within the federal, state and regional picture?

Within the state of Washington, there are a number of federal, state, regional, and local programs that oversee transportation infrastructure planning and investment, including:

- FHWA
- WSDOT
- Regional Transportation Investment District (RTID)
- Central Puget Sound Transit Authority (Sound Transit)
- Puget Sound Regional Council (PSRC)
- City of Seattle (including transportation, utilities, etc.)
- The Port of Seattle

These entities will affect the levels of the support for projects such as the Viaduct. The following discusses how each entity relates to the project.

The Viaduct and the Federal Government

Federal Highway Administration

SAFETEA-LU, the federal transportation act passed in 2005, included three earmarks for the Viaduct Project: two for the Projects of Regional and National Significance program (totaling \$220 million) and one for the High Priority Projects program (\$11.2 million), for a total of \$231.2 million.

Since federal earmarks are rarely greater than \$100 million, the investment included in SAFETEA-LU indicates significant federal support for the project and strong congressional leadership.

The Viaduct and the State of Washington

Overall State Support

Since planning began in 2001, WSDOT has invested over \$60 million in developing alternatives, preliminary engineering, and conducting environmental analysis for the Viaduct Project. Recognizing that the viaduct serves over 100,000 vehicles daily, the state has acknowledged the priority for replacing the viaduct by assembling \$2.2 billion in funding from tax packages passed in 2003 and 2005.

Political Support for Replacing the Viaduct

Government officials throughout the state of Washington have publicly expressed the pressing need to rebuild the viaduct and SR 520 Bridge:

“These are our levees. And the earthquake is our hurricane.”

— *Governor Christine Gregoire
on the Alaskan Way Viaduct and the SR 520 bridge*³

“Let’s face it, the main thing driving this [2005 gas tax package] is the viaduct and (520) bridge...two major thoroughfares that could fall down. It’s not a matter of if, but when.”

— *Senator Mary Margaret Haugen, Chair, Senate
Transportation Committee*⁴



Existing cracks in the viaduct

“[The 520 Bridge and the Alaskan Way Viaduct] are both in danger of collapsing, and if they did it would absolutely paralyze the central Puget Sound area....”

— *Senator Ken
Jacobsen,
Vice-Chair of the Senate Transportation
Committee*⁵

“The first thing we addressed in the Legislature was the failing structures in the Seattle metro area, the Alaskan Way Viaduct and 520 Bridge. If either of those were to fail it would have a devastating effect on the economy.

— *Senator Dan Swecker,
District Representative*⁶

The Washington Transportation Plan (WTP)

The Washington State Transportation Commission, in coordination with WSDOT, is currently updating the Washington Transportation Plan (WTP), expected this summer. The WTP will guide future decisions and

³ Associated Press. 21 October 2005. “Floating Bridge or Sinking Deathtrap?” <<http://www.discovery.org/scripts/viewDB/index.php?command=view&program=Casca dia-News&id=2964>>.

⁴ *Seattle Times*. 31 March 2005. “Senate looks to higher gas tax to replace viaduct, 520 bridge.”

⁵ 6 April 2005.

⁶ *The Olympian*. 7 April 2005.

investments in transportation policy and planning. Key issues will be discussed, including safety, preservation, system efficiency, relieving bottlenecks, freight movement, supporting a healthy economy, and maintaining the environment.

For example, the plan states: “There is no more fundamental transportation capital investment than system preservation—keeping the physical infrastructure in good condition.”⁷ The WTP specifically raises the need to replace the Alaskan Way Viaduct and the SR 520 floating bridge, and discusses the funding necessary for these projects.

The Viaduct and the Regional Agenda

Washington legislators knew that major Puget Sound projects could not be funded solely from state contributions. As a result, in 2002, a regional transportation governance bill was passed, which authorized the creation of a Regional Transportation Investment District (RTID).

What is the Regional Transportation Investment District?

RTID is responsible for identifying and funding regionally significant road and transportation improvement projects within three counties — Snohomish, Pierce, and King (see Exhibit 2). RTID has the authority to propose local taxes and fees to fund these projects, which must be approved by voters from all three counties prior to implementation.⁸

The seven-member RTID Executive Board develops the investment plans, and the separate 26-member Planning Committee presents the plans to voters. The Planning Committee includes all 25 County Council members within the investment district, and the Secretary of Transportation, a non-voting member, serves as Chair.

In spring 2006, RTID’s funding sources were modified to include:⁹

- A regional sales and use tax of up to 0.1 percent
- A vehicle license fee of up to \$100 per year
- A motor vehicle excise tax of up to 0.8 percent
- A motor vehicle use tax of 0.1 percent

⁷ WSDOT. 2006. “Transportation Plan Update.”
<<http://www.wsdot.wa.gov/planning/wtp/>>.

⁸ Regional Transportation Investment District. Accessed 3 April 2006. “Welcome to RTID.”
<<http://www.rtid.dst.wa.us/>>.

⁹ State of Washington House Committee on Transportation. 8 March 2006. “Engrossed Substitute House Bill 2871.” 59th Legislature 2006 Regular Session.

- A local option motor fuel tax equal to 10 percent of the state fuel tax, but only if RTID’s taxing boundaries encompass entire counties
- Network value-pricing charges based upon vehicle miles traveled and possibly other factors
- Tolls on local or regional arterials or state or federal highways within the boundaries of the district, if such tolls are approved by the state Transportation Commission or its successor, identified in the Plan, and administered by WSDOT
- Revenue sources authorized under the regional transit authority provisions (Sound Transit retains its revenue authority)
- Bonding authority: RTID may issue secured general obligation bonds without voter approval and unsecured general obligation bonds up to five percent of the value of taxable property within the district, if approved by three-fifths of voters voting at an election. Secured revenue bonds may be issued at any time without voter approval.

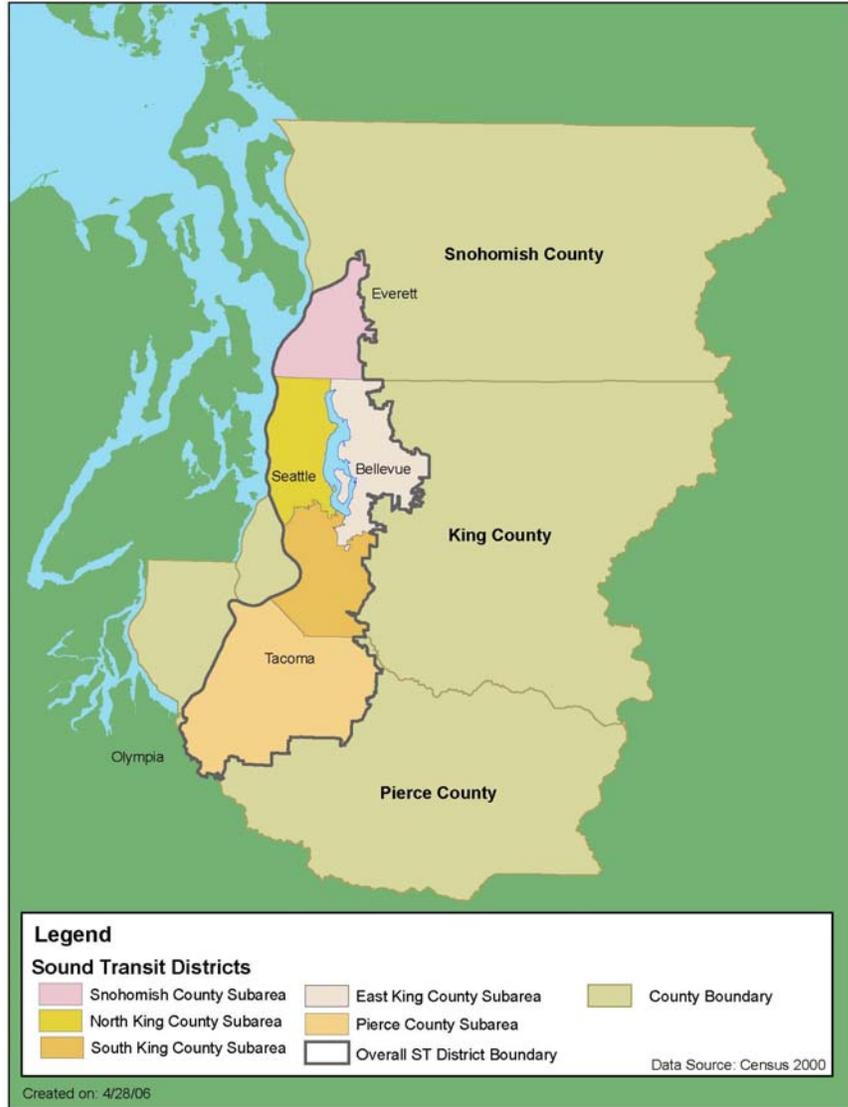
Revenue will remain in the county it was raised in to fund the projects considered most valuable to that county’s residents.

How has the RTID recently evolved?

Initial RTID planning focused on the entire three-county area. However, in January 2006, the RTID board made a proposal to Sound Transit, the regional transit authority for King, Pierce and Snohomish counties, to more closely coordinate Sound Transit’s Phase 2 investment plan with the RTID investment plan. The Washington Legislature subsequently formalized this proposed coordination by requiring the two investment plans to work together toward a joint ballot measure in 2007 (ESHB 2871).¹⁰ This could have the effect of reducing the size of the RTID boundaries to match the Sound Transit District boundaries within which Sound Transit already collects local option taxes. Exhibit 2 illustrates the existing Sound Transit District boundaries within the three-county region.

¹⁰ State of Washington House Committee on Transportation. 8 March 2006. “Engrossed Substitute House Bill 2871.” 59th Legislature 2006 Regular Session.

Exhibit 2: Sound Transit District Boundaries



Sound Transit and RTID Joint Ballot Measure

What is Sound Transit?

The Central Puget Sound Transit Authority (Sound Transit), officially formed in 1993, is authorized by state law to plan, build and operate high-capacity transit networks in a district that comprises the most heavily populated parts of Snohomish, King, and Pierce counties (see Exhibit 2)

Sound Transit's first phase investment program, Sound Move, currently includes investments in commuter rail service, regional express buses, and light rail, with much of the initial light rail system under construction. Sound Transit is currently planning for a second phase of investments.

Of note is the fact that in Sound Transit projects, local tax revenues must be used to benefit five "sub-areas" within the Sound Transit District boundaries, based on the share of revenues that each sub-area generates. A similar concept is included in recent legislation (ESHB 2871) that requires RTID's investments to be proportional to revenues generated by county.

As of March 2006, Sound Transit revenue sources include¹¹:

- Retail sales and use tax of up to 0.4 percent
- Motor vehicle excise tax of up to 0.3 percent (until bonds to which this revenue source is pledged are retired)
- Rental car tax of 0.8 percent
- Federal grant funding program
- Fare box revenues
- Interest earnings
- Other miscellaneous sources

How does new legislation impact funding sources for Sound Transit and RTID?

ESHB 2871, passed on March 8, 2006, posed new opportunities for RTID and Sound Transit to collaborate on next year's transportation ballot. For example, changes in regional boundaries and new rates for motor vehicle and sales tax revenues will require some discussion and agreement between the two agencies. Sound Transit and RTID began meeting in May 2006 to discuss how to interpret the new legislation, and these discussions are expected to continue through the year.

¹¹ Central Puget Sound Transit Authority. 2006. "2006 Adopted Budget."
<http://www.soundtransit.org/pdf/about/financial/2006/Adopted_2006_budget.pdf>

How will the joint Sound Transit / RTID ballot measure work?

Until ESHB 2871 was passed into law, Sound Transit had been preparing a package of Phase 2 transit investments to take to the voters in November 2006. The new legislative requirement delays the ballot measure to give Sound Transit and RTID time to coordinate and optimize their transit and highway investment plans within the three-county region for a joint ballot. Although the RTID and Sound Transit proposals will each receive a separate vote, both proposals must pass for either to be implemented.

Puget Sound Regional Council's *Destination 2030*

What is Destination 2030?

The Puget Sound Regional Council (PSRC) is designated under state law as the Regional Transportation Planning Organization (RTPO), and under federal law as the Metropolitan Planning Organization (MPO) for the central Puget Sound region. PSRC adopted *Destination 2030* in March 2001. *Destination 2030* is a plan that sets regional transportation policies, lists regional transportation needs in the form of programs and projects, describes a financial strategy to meet those needs, and discusses implementation and monitoring strategies.

How does the Viaduct Project fit into *Destination 2030*?

The investment strategy for *Destination 2030* focuses on the transportation systems that operate at a regionally significant scale and can influence the region's long-term growth, development and quality of life. Investment principles that coincide with those of the Viaduct Project are as follows:¹²

- The first priority should be to maintain, preserve, make safe, and optimize existing transportation infrastructure and services.
- Investments should emphasize continuity and complete discrete elements of the transportation system.
- Appropriate investments in all modes should be emphasized to provide travel choices.
- Transportation investments should be directly linked with measurable transportation, environmental and land use outcomes, and should support the achievement of regional and state benchmarks.

¹² Puget Sound Regional Council. 22 April 2004. "Destination 2030: 2004 Review and Progress Report." Submitted to the Federal Highway Administration and the Federal Transit Administration.

< <http://www.psrc.org/projects/mtp/2004progress/2004progrep.pdf>>.

- Cost effective transportation options that address identified problems should be demonstrated and implemented.
- Compact development of designated urban centers, high capacity transit station areas, and other communities should be supported through direct investment.

Destination 2030 financial principles that coincide with those of the Viaduct Project include:¹³

- Additional revenues must address local, regional and state transportation plan needs.
- New revenue sources must bear a relationship to system cost and system use.
- The financial structure should support multi-modal mobility.
- System financing must be sustainable.
- New financing tools or changes to the financing structure should strive to simplify and add flexibility to the overall structure.
- A reasonable rate of return on revenues raised within a region should be ensured for investments within the region.

Local Support for the Viaduct

City of Seattle's Transportation Strategic Plan

The 2005 Transportation Strategic Plan discusses the importance of regional connectivity to and from Seattle, with an emphasis of the safety and efficiency of those connections. The Viaduct Project serves the plan's stated goals of improving mobility within the Puget Sound Region.

However, there is not full agreement in Seattle on what to do with the viaduct. Areas of discussion include:

- Should we make a decision now or should we study the alternatives further?
- Does the transportation capacity really have to be replaced or can we get people to take buses?
- Does it make sense to miss this once-in-a-lifetime opportunity to build a vibrant waterfront?
- Given that there is a long list of worthy funding needs, including other high priority road and transit projects, does it make sense to

¹³ Puget Sound Regional Council. 22 April 2004. "Destination 2030: 2004 Review and Progress Report." Submitted to the Federal Highway Administration and the Federal Transit Administration.
< <http://www.psrc.org/projects/mtp/2004progress/2004progrep.pdf>>.

invest an extra billion dollars to build a tunnel rather than an elevated structure?

- Is the elevated structure really an option?
- What will we do if another earthquake renders the viaduct unusable before we have replaced it?
- Why can't we just fix the viaduct?

Uses of Funds — What are the funding needs?

What assumptions are we making for the purpose of this finance plan?

The project's final scope will be officially ratified when the environmental process is complete in 2008. There are two general options, both of which are similar in the south and north ends but are different along Seattle's waterfront between Spokane Street and the Battery Street Tunnel. The City of Seattle and WSDOT prefer the tunnel option which would put the current elevated section underground. In case the tunnel option becomes infeasible, a second option continues to be included in the environmental review process. This option is an elevated structure that essentially replaces the existing viaduct with a wider facility that adds shoulders and other safety features. Evaluating both alternatives will continue until such time as the benefits, costs and funding issues have been sorted out and a decision is made.

This finance plan discusses sources and uses of funds for both the tunnel and elevated options.

What are the two alternatives?

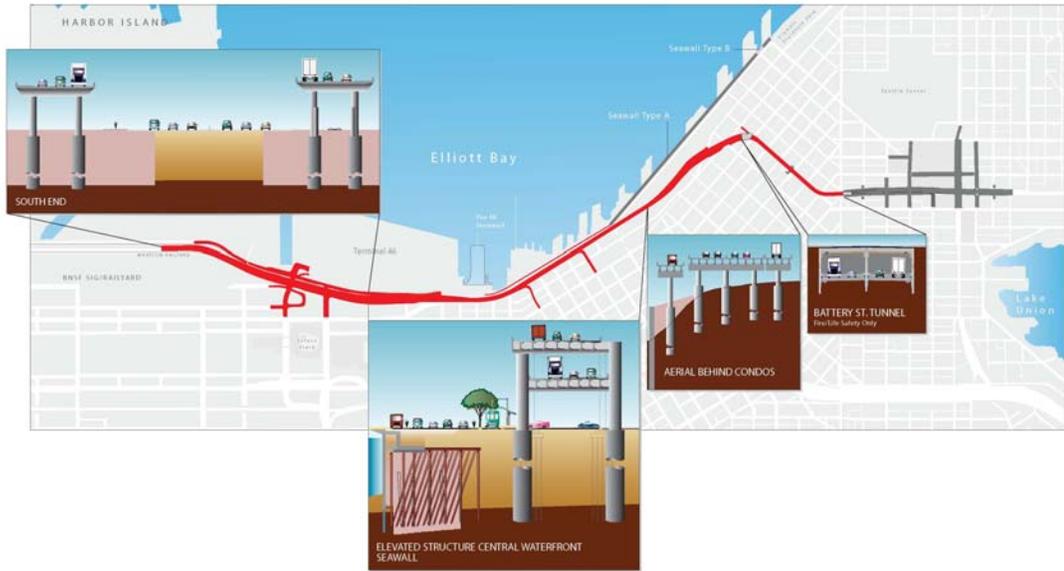
Specifically, two alternatives that meet the project's purpose and need are addressed in this financial plan:

- Core Tunnel Alternative (T3)
- Core Elevated Structure Alternative (R2)

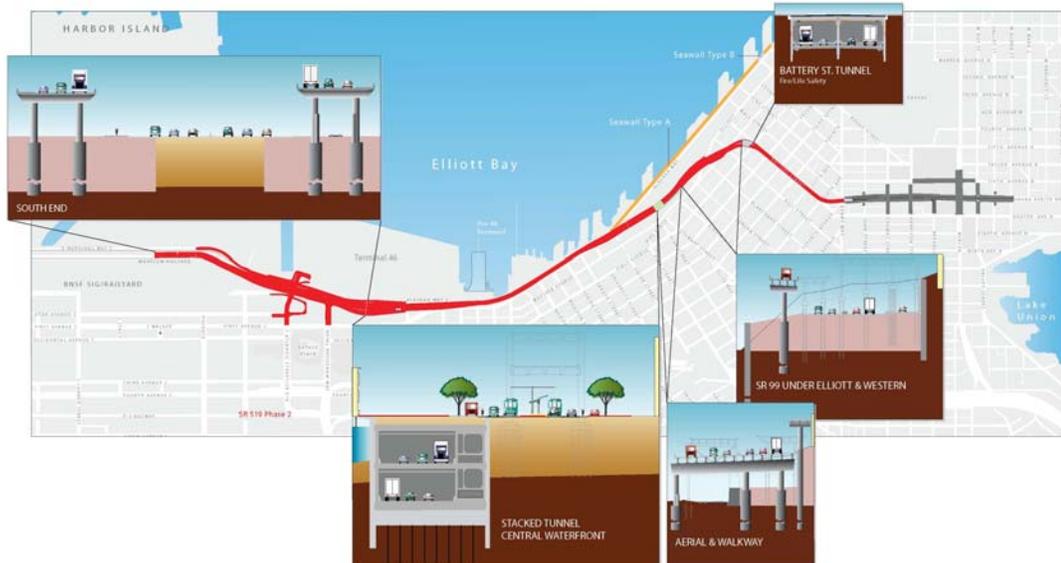
The term "core" refers to the section of the project area from the south end at Spokane Street up to the Battery Street Tunnel. Improvements north of the Battery Street Tunnel, which represent the additional components comprising the two "full" alternatives, are independent from replacing the existing elevated viaduct. This finance plan currently focuses on the core elements because they are instrumental in the need to secure funding to replace the most seriously compromised sections of the project; the

additional northern components could be constructed as an independent phase. A more detailed definition of the project alternatives can be found earlier in Tab Two of this notebook as well as within the Viaduct Project's Draft EIS. Exhibit 3 illustrates the location of the core and full project components, and Exhibit 4 provides a summary of the key features of the two alternatives.

Exhibit 3: Core Viaduct Project Components



Core Elevated Structure limits are shown above.



Core Tunnel limits are shown above.

Exhibit 4: Key Components of Core Tunnel and Elevated Structure Options¹⁴

Core Tunnel Alternative (T3)	Core Elevated Structure Alternative (R2)
<ul style="list-style-type: none">• South end improvements• Stacked tunnel along the central waterfront• Aerial SR 99 to Battery Street Tunnel• Lid from Victor Steinbrueck Park to waterfront• Fire/life safety improvements in the Battery Street Tunnel	<ul style="list-style-type: none">• South end improvements• Rebuilt viaduct and seawall along the central waterfront• Aerial SR 99 up to Battery Street Tunnel• Fire/life safety improvements in the Battery Street Tunnel

How do we know what the Tunnel and Elevated Structure alternatives will cost, given this early stage in project development?

Cost Estimation and Validation Process (CEVP)

As with all major transportation projects in Washington state, Viaduct Project costs were estimated using a process called Cost Estimate and Validation Process (CEVP). The CEVP process is described in Tab One of this notebook.

Briefly, there are four elements that set the CEVP apart from more traditional cost estimation:

- CEVP explicitly incorporates a workshop that brings together a wide range of expertise from different professionals involved in the project to identify and quantify risk factors.
- It includes a statistical simulation (called the “Monte Carlo” method) to reflect and incorporate uncertainty in project costs.
- CEVP is formally redone once each year, with the expectation that the range of costs will narrow as the project progresses.
- Costs are presented as ranges rather than as simple figures.

After the project team discusses cost element risk factors and assigns weights to them, these weights are translated into probability distributions that are used in a Monte Carlo simulation to assess the collective variability in overall project costs. An outcome of the process is a probability that the project cost will be less than or equal to a given amount.

WSDOT believes CEVP makes the costs and risks associated with a project more publicly understandable. The method helps practitioners

¹⁴ USDOT. 2005. “SAFETEA-LU Section 1301, Projects of National and Regional Significance – Alaskan Way Viaduct and Seawall Project Description.”

communicate the limits and assumptions behind estimates, as well as what people will actually see as the project proceeds. Further, since the method inherently depends on close collaboration between people working on different aspects of the project, better communication within the project team is facilitated.

Using the WSDOT CEVP methodology, all project costs have been estimated in, or otherwise escalated to YOE dollars to account for price inflation impacts.

Total project costs over the construction period can be considered equivalent to an overall cost that is expressed in constant dollars from the year of the midpoint of construction.

WSDOT's policy for large projects like the Viaduct is to plan for the 90th percentile CEVP cost — the figure for which there is a 90 percent chance that the actual cost will be less than or equal to that amount.

All CEVP figures presented in this report are 2005 estimates and are subject to change as the project progresses through preliminary engineering.

What are the capital costs for the Core Elevated Structure Alternative?

For the Viaduct Core Elevated Structure Alternative (R2), the 10th and 90th percentile CEVP cost estimates, in YOE dollars, are as follows:

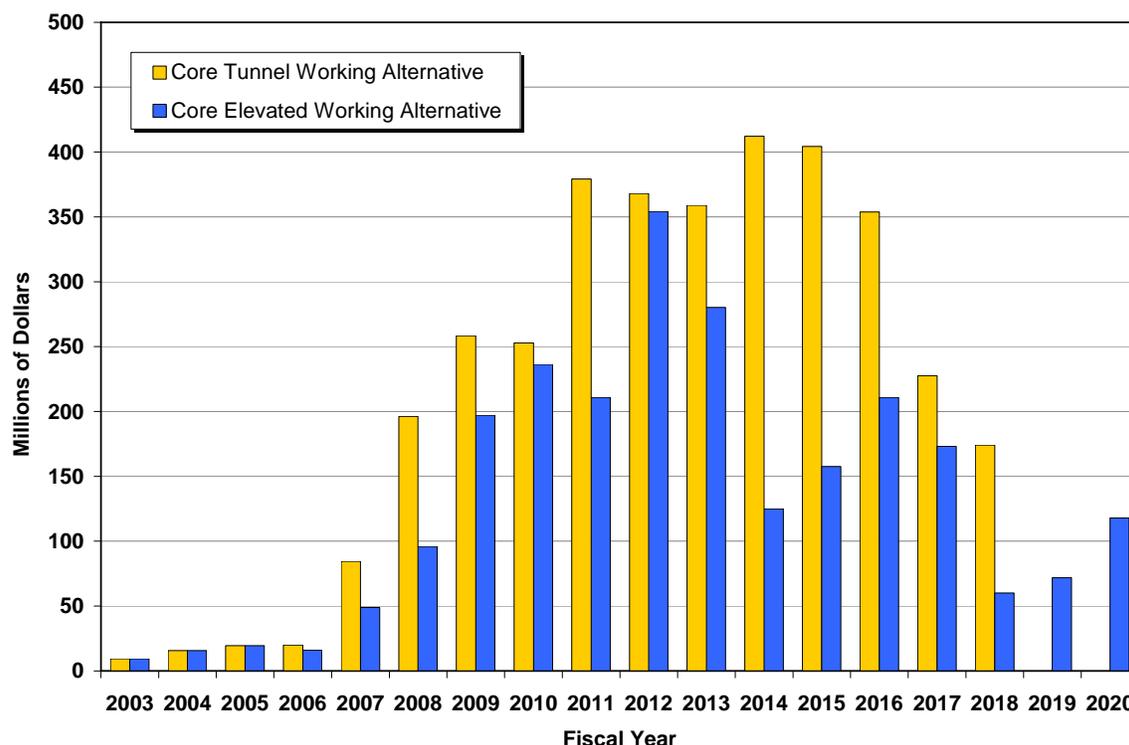
- 10th percentile estimate: \$1,989 million
- 90th percentile estimate: \$2,355 million

The 90th percentile cost estimate may be interpreted as follows:

There is a 90 percent chance that the actual cost will be less than or equal to \$2.355 billion, and a 10 percent chance that actual cost will be greater than \$2.355 billion.”

This finance plan employs the 90 percent CEVP for the Core Elevated Alternative cost estimate, allocated by state fiscal year. Exhibit 5 presents the cost data over time.

Exhibit 5: Core Elevated Structure (R2) and Core Tunnel (T3) Alternative 90 percent CEVP Cost Estimate Cash Flow (2003 – 2020)



What were the scheduling assumptions used when performing the CEVP for the Core Elevated Structure Alternative?

In CEVP, schedule estimates are presented in terms of percentile probabilities in the same manner as cost estimates. For this project, the 65 percent scheduling CEVP estimate is used, which is a completion date of 2020. The project team is currently evaluating the trade-offs between construction approaches that will accelerate the schedule but have longer periods of closure in which traffic must detour to city streets and I-5, and those that will minimize closures but take longer to construct. As such, the project schedule and expected completion date will likely change.

What are the capital costs for the Viaduct Core Tunnel Alternative?

For the Core Tunnel Alternative (T3), the 10th and 90th percentile CEVP cost estimates, in YOE dollars, are as follows.

- 10th percentile estimate: \$2,983 million
- 90th percentile estimate: \$3,627 million

As with the elevated case, this finance plan employs the 90 percent CEVP for the Core Tunnel Alternative cost estimate, allocated by state fiscal year. Exhibit 5 presents the Core Tunnel Alternative cost data over time.

What were the scheduling assumptions used when performing the CEVP for the Core Tunnel Alternative?

In CEVP, schedule estimates are presented in terms of percentile probabilities in the same manner as cost estimates. Currently, the completion date for the Core Tunnel Alternative is estimated to be 2018, which corresponds to the 65 percent CEVP estimate. The project team is currently evaluating the trade-offs between construction approaches that will accelerate schedule but have longer periods of closure in which traffic must detour to city streets and I-5, and those that will minimize closures but take longer to construct. As such, the project schedule and expected completion date will likely change.

What other assumptions were considered for the Core Elevated Structure and Core Tunnel alternatives?

Key assumptions made in the CEVP cost and scheduling estimates include:

- The project will maintain existing capacity
- Schedules and cost estimates are based on full funding and unconstrained flow of funds
- Schedules and cost estimates assume the project partners agree on a preferred alternative
- Cost estimates include the cost of relocating public utilities, but not private
- There will be reduced traffic capacity during construction
- Cost estimates are based on full funding and unconstrained flow of funds
- A preferred alternative is selected in 2007 in order to begin section design and prepare for construction contract award in 2010
- There will be some complete closures of SR 99 during major roadway construction

What did WSDOT learn from the CEVP analysis?

According to WSDOT's CEVP estimates for the Viaduct Core Elevated Structure and Core Tunnel alternatives, there is 90 percent chance that the

total project cost will be less than or equal to \$2.4 billion and \$3.6 billion, respectively.

The later section on funding presents the secured and anticipated sources of funds for the project and discusses how uncertainty has been taken into account. Anticipated sources of funding are compared to the 90 percent CEVP cost estimates. The results of this comparison give a clearer understanding of the magnitude and timing of funding surpluses and gaps, given current assumptions.

What about ongoing operating and maintenance costs?

Until project completion, any O&M costs on the new facility would be capitalized as part of the construction costs.

The projected O&M cost estimates for the two viaduct alternatives are very preliminary. Annual O&M costs for the Core Tunnel Alternative are projected to be an additional \$900,000, for a total of \$4.0 million in current dollars (2005). Annual O&M costs for the Core Elevated Structure Alternative are projected to be \$3.1 million in current dollars (2005).

State and/or local funding sources for future, ongoing O&M costs have not yet been determined. Currently, the existing viaduct and Battery Street Tunnel are jointly operated and maintained by the City of Seattle and WSDOT. If, at some point in the future, the viaduct were to become a part of a larger, regional toll network, then toll revenues could be a potential source of funding to pay for O&M costs.

What are the sources of funding for the project?

How have identified funding sources been categorized?

Several federal, state, regional and local funding sources have been identified for the Viaduct Project. For purposes of this finance plan, these funding sources have been categorized according to their certainty and other characteristics (at the time of writing) as follows:

- **Expended** — funds that are currently in-hand and/or have already been expended.
- **Secured** — funds that are committed to the project with a specific disbursement schedule and expected to be realized in full.
- **Anticipated** — funds that are anticipated, but not yet secured. Funding may depend on legal, institutional or political actions, and/or the amount may be uncertain. Note that not all sources are available for both alternatives.
- **Other** — potential sources of funds that currently have a low probability of contributing to capital needs. (Due to high degree of uncertainty, these sources are not quantified in the finance plan).

Within this finance plan, “expended” and “secured” funding sources are assumed fixed in terms of amount and disbursement schedule. “Anticipated” funding sources are accompanied by assumptions regarding their range of possible values and general notions of their likelihood. “Other” potential funding sources are described qualitatively, with no values assigned. As such, they are not included among the sources of funds that are compared to project needs.

Exhibit 6 summarizes the information we have to date regarding funding sources for the viaduct alternatives. The following sections discuss in greater detail the risks and opportunities associated with each source.

Exhibit 6: Alaskan Way Viaduct Funding Plan

	Sources of Funds (\$ millions)			
	Secured / Expended		Anticipated	
			Minimum	Maximum
Federal	<ul style="list-style-type: none"> • TEA-21 Earmarks & Formula Funding 19.18 • Federal U.S. Army Corps of Engineers 0.50 • SAFETEA-LU Earmarks 197.60 		<ul style="list-style-type: none"> • Future Transportation Funding Reauthorizations 0.00 • Emergency Relief Funding 32.00 • Federal U.S. Army Corps of Engineers Water Resources Development Act (Seawall) 200.00 	
State	<ul style="list-style-type: none"> • Pre-2003 Funding 4.17 • 2003 Nickel Package 177.00 • 2005 TPA Package 2,000.00 			
Regional	<ul style="list-style-type: none"> • Puget Sound Regional Council STP Grant 1.20 		<ul style="list-style-type: none"> • RTID Ballot Measure 0.00 • Tolling 0.00 • Sales Tax rebate 0.00 	<ul style="list-style-type: none"> 800.00 150.00 176.80
Local	<ul style="list-style-type: none"> • City of Seattle 15.80 		<ul style="list-style-type: none"> • City of Seattle — Open Space and Other Funding (Tunnel Only) 0.00 • City of Seattle — Transportation Funding (Tunnel Only) 0.00 • City of Seattle — Public Utilities* 0.00 • City of Seattle — Local Improvement District (Tunnel Only) 0.00 • Port of Seattle — Capital Improvement Plan 0.00 	<ul style="list-style-type: none"> 80.00 20.00 400.00 250.00 200.00
Total		2,415.46	32.00	2,616.80

* City of Seattle utility relocations are estimated to cost \$400 million (2005 CEVP). If however, the cost is greater, the City will pay increases up to \$500 million.

What funding sources have already been received and expended?

Of the total \$2.4 billion in expended and secured funding, \$40.8 million in funding from federal, state, regional, and local sources has been received and expended. In addition, a portion of the 2003 Nickel Package and 2005 Transportation Partnership Account (TPA) funding has been expended;

however, these latter state sources have been classified as “secured” because the majority of them have not yet been received and expended.

Expended Federal

Federal TEA-21 Appropriation Earmarks and Formula Funding

Federal TEA-21 appropriation earmarks and formula spending totaling \$19.2 million were disbursed over a period from project inception up through 2005.

Expended - State, Regional, and Local

Pre-existing State and City of Seattle Funds

Pre-existing project funds from the state, City of Seattle, and the MPO, totaling \$21.2 million, were disbursed over a period of three years, from 2003 to 2005.

What funding sources have been secured?

The reader should note that although the sources of funding discussed in this section are described as “secured,” there is always some risk that total funding amounts will not meet expectations. Such risk factors are described below, where appropriate.

Secured - Federal

SAFETEA-LU (Years One through Five)

SAFETEA-LU, the federal transportation act passed in 2005, included three earmark authorizations for the Viaduct Project: two under the Projects of National and Regional Significance program (\$220 million) and one for the High Priority Projects program (\$11.2 million), for a total of \$231.2 million.¹⁵ This amount was atypically large as compared to most congressional earmarks. After passage, the Congressional allocations for earmarks were subject to a 15 percent reduction to cover other federal transportation expenditures and program administration. The overall total of \$231 million is therefore expected to be closer to \$197.6 million.

¹⁵ “Alaskan Way Viaduct and Seawall Replacement.” SAFETEA-LU Section 1301, Projects of National and Regional Significance

2003 Nickel Funding Package

The 2003 Washington Legislature voted to fund a program of 158 specifically-named transportation projects over a 10-year period, drawing upon such sources as:

- A 5-cents-per-gallon gas tax increase
- A 15 percent increase in gross weight fees on heavy trucks
- A 0.3 percent increase in sales tax on motor vehicles¹⁶

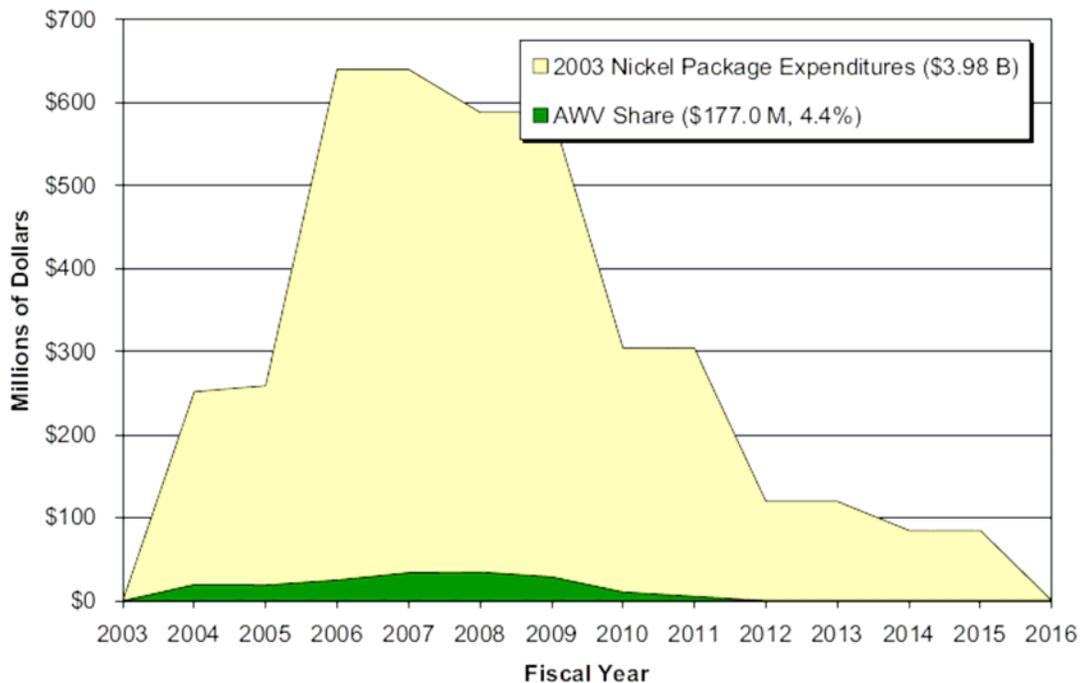
The total investment is \$3.9 billion. When the projects are built, and the accompanying bonds are paid off, the five-cent per-gallon tax increase will expire.

Nickel revenue forecasts are updated quarterly. Overall receipts are running within three percent of forecasts.

Nearly 82 percent of Nickel Package funding has been devoted to highway improvements, including the Viaduct Project (\$177 million). Other projects include general congestion relief, freight movement improvements, preservation, and ferry service improvements. Exhibit 7 illustrates the Viaduct Project's share of Nickel Package total expenditures over time. Given the small proportion of Viaduct Project funding relative to the whole package, we can say that even if Nickel revenue were to fluctuate, there would likely be no effect on the Viaduct Project allocation.

¹⁶ WSDOT. Accessed 25 April 2006. "Project Funding: 2003 'Nickel' Package Funding."
<<http://www.wsdot.wa.gov/Projects/Funding/Nickel/>>.

Exhibit 7: Viaduct Share of 2003 Nickel Package Funding (2003-2016)



2005 Transportation Partnership Account (TPA)

In 2005, the Washington Legislature passed a \$7.1 billion transportation revenue package to fund 274 specific projects across the state over 16 years. The package includes:¹⁷

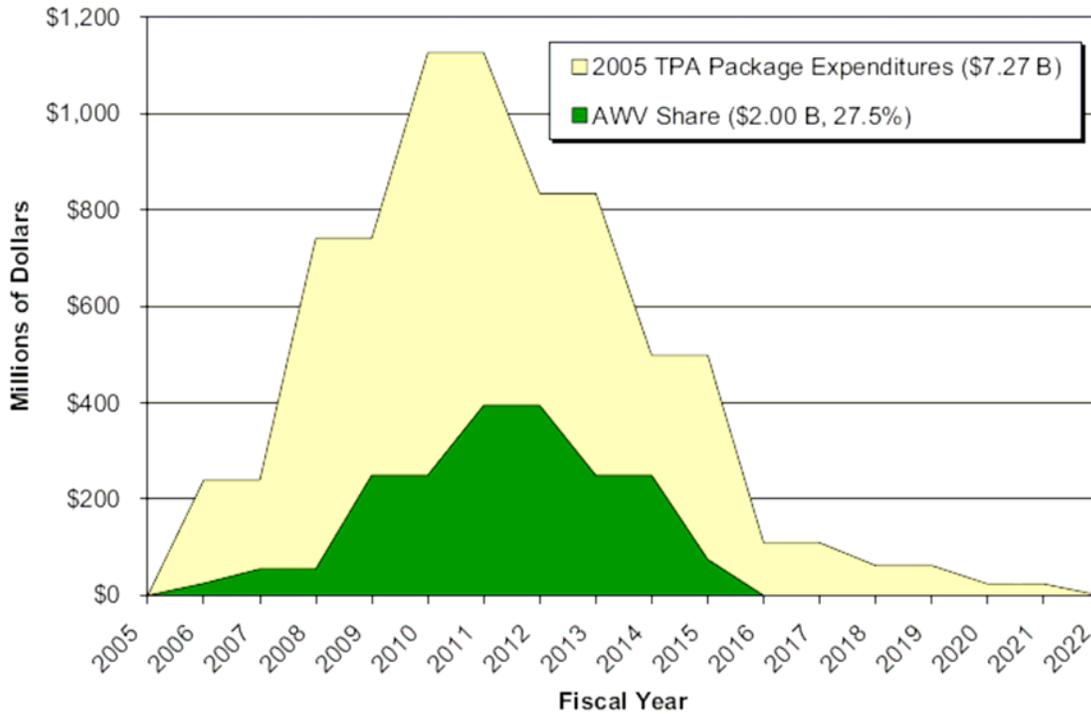
- A 9.5-cents-per-gallon gas tax increase, phased in over four years
- A vehicle weight fee on passenger cars
- A light truck weight fee increase
- An annual motor home fee of \$75

Thirty at-risk structures are covered in the act, comprising 42 percent of total funding or \$2.98 billion. The work will extend the longevity of structures to be able to better withstand heavy use, severe weather, and earthquakes. The viaduct was allocated \$2 billion for replacement.

Exhibit 8 illustrates Viaduct Project funding as a share of the TPA Package over time.

¹⁷ WSDOT. Accessed 25 April 2006. "Project Funding: 2005 Transportation Tax Package." < <http://www.wsdot.wa.gov/Projects/Funding/2005/> >

Exhibit 8: Viaduct Share of TPA Funding (2003 – 2022)



In the state of Washington, local initiatives can repeal major taxes. In November 2005, voters were asked to consider repealing the gas tax increase included in the TPA. That initiative was defeated, with 55 percent voting against repeal. In November 2006, voters may have the opportunity to consider repealing the weight fees and other transportation taxes also included in the TPA. The deadline for filing such an initiative is July 2006.

The February 2006 forecast for gas tax receipts over the 16-year period has decreased slightly; however, forecasted revenues are still closely aligned with the legislative baseline projection. Revenue forecasts are updated quarterly. If there is a revenue shortfall, the state can adjust in a number of ways including covering expenditures with un-programmed motor vehicle account dollars or lowering expenditures. As we move into budget development, WSDOT will update revenue forecasts, bond sale assumptions, project cost inflation and expenditure patterns.

Secured - Regional

There are no regional sources of secured funds at this time.

Secured - Local

There are no local sources of secured funds at this time.

What funding sources are anticipated?

Anticipated funding sources are not secured. Nevertheless, project stakeholders are confident that funding within identified ranges will be received, so long as favorable political and economic conditions prevail. However, there are factors that could reduce or eliminate funding for some anticipated sources, including:

- Election and ballot measure outcomes
- Voter initiatives
- Turnover of key politicians or project champions
- Contingent approvals
- Economic shocks
- Errors in revenue/funding projections
- Competing project needs, especially those of the SR 520 Project

Anticipated - Federal

Future Transportation Funding Reauthorization

U.S. Congress is scheduled to consider the next reauthorization of federal funding (SAFTEA-LU successor legislation) in 2011. Even if Congress delays action on this bill for several years, a future appropriation would still benefit the project since it would still be under construction at that time. For the purpose of this plan, we assume the project would continue to be a congressional priority. We also assume earmarks would be more typically sized than was included in SAFETEA-LU.

We anticipate this source to range from \$0 to \$280 million over two funding cycles. According to conversations with federal congressional staffers, given the generous funding granted in the previous allocation, it is unlikely that the new allocation would be significantly higher than this range.

Emergency Relief Funding

Due to the direct relationship between the 2001 Nisqually Earthquake and the continuing damage to the viaduct, the project may be eligible for \$32 to \$60 million in Federal Emergency Relief Funding. The Emergency Relief program provides for repair and restoration of highway facilities to pre-disaster conditions. Before the earthquake, the viaduct was in stable

condition and continued operation was expected for many years to come. The earthquake not only caused immediate damage to the viaduct, but also created latent deterioration throughout the structure that has eliminated the possibility for repair or retrofit, heightening the need for replacement action. Currently, the funding is specifically targeted at replacing two frames that show continuing distress from the earthquake.

This summer, project tests will be conducted that may result in eligibility for funding beyond the discussed range.

Water Resources Development Act (Seawall)

The Water Resources Development Act (WRDA) is biennial legislation that authorizes the civil works program for the Corps, and includes funding authorizations for new projects. In order for authorization for a project, there must first be a determination of a federal interest. Law establishes federal interest in water resources development. Within the larger federal interest in water resource development, the Corps is authorized to carry out projects in seven mission areas: navigation, flood damage reduction, ecosystem restoration, hurricane and storm damage reduction, water supply, hydroelectric power generation, and recreation.

In order for a determination of federal interest to participate in project cost-sharing, several studies must first be completed.

The first study is a Reconnaissance Phase Study. In fiscal year 2003, Congress appropriated \$100,000 to conduct the reconnaissance phase study for the Alaskan Way Seawall. This was done as a response to the Committee on Transportation and Infrastructure, U.S. House of Representatives, House Resolution 2704, September 25, 2002 resolution. The purpose of the reconnaissance phase study is to determine if there is a federal (Corps) interest in participating in a cost shared Feasibility Phase Study to provide storm damage prevention, shoreline protection, environmental restoration and protection, and related improvements to Elliott Bay and the Alaskan Way Seawall. The Reconnaissance Study resulted in the finding that there is a federal interest in initiating a Feasibility Phase Study of the seawall.

The Feasibility Phase Study is currently underway. The City of Seattle and the Department of the Army entered into a 50-50 cost sharing agreement to carry out this study. The study will consider the benefits of replacing the seawall, including avoided travel delays, economic impacts to businesses, and property damage, in order to identify the level of WRDA funding that would be commensurate with these benefits. Once completed, the Feasibility Phase Study will be forwarded through the Army's chain of command to the Corps Chief Engineer, who will make a recommendation as to whether or not there is a continued federal interest

in the project and statutory authorization to do so, and if so, what additional recommendations and requirements are needed. If the Feasibility Study establishes federal responsibility, additional work will be necessary to secure funding from this program.

A preliminary estimate for WRDA funding has been established at between \$0 and 200 million. Note that a portion of this funding may end up being programmed for the North Seawall replacement, which is not part of the "core" portions of either Viaduct Project alternative as discussed within this finance plan. The likelihood of receiving significant WRDA funding is uncertain at present, given the national interest in the gulf state ports following hurricanes Katrina and Rita.

Anticipated - State

As of the time of writing, no additional funding is anticipated from the state.

Anticipated - Regional

RTID Ballot Measure

The RTID board has consistently proposed investing in the Viaduct Project. In January 2006, the RTID board presented a \$7.2 billion investment plan, which included an \$800 million allocation for the Viaduct Project.

The January 2006 plan is called "The Blueprint for Progress." The list of proposed projects (which are subject to change) are summarized in Exhibit 9.¹⁸

¹⁸ RTID. 26 January 2006. "Blueprint for Progress: Moving Forward Together." Proposal Presented to the Sound Transit Board of Directors.

Exhibit 9: Summary of RTID's Proposed Projects by County

County	Project / Investment	Funding (\$ millions)
King	SR 99: Alaskan Way Viaduct	800
	I-405	1330
	SR 520 Bridge	800
	I-5 Improvements & SR 509 Extension	870
	SR 167	420
	I-5 Improvements at SR 18	50
	Additional Investments & Contingency	237
	Sub-Total	\$ 4,507
	Pierce	SR 167
SR 162		180
SR 704		210
Additional Investments & Contingency		104
Sub-Total		\$ 1,494
Snohomish	Highways of Statewide Significance (HSS) and related Approaches	934
	Non-HSS projects	107
	HOV and transit	168
	Sub-Total	\$ 1,208
Total	\$ 7,209	

For the purpose of this plan, and based on informal discussion with RTID members, WSDOT believes the Viaduct Project would receive \$800 million in the final RTID proposal, subject to voter approval.

As noted earlier in this document, RTID is expected to put forward a joint ballot measure with Sound Transit for highways and transit in November 2007. Until the plans are developed and polls are fielded, neither RTID nor WSDOT can assess the likelihood of voters approving the joint ballot measure.

Washington State Sales Tax Transfer

RCW 82.32.470 created RTID and also amended existing law to allow the 6.5 percent Washington state sales tax paid on the construction of RTID's transportation projects to be returned to projects. WSDOT only became aware of this option in May 2006. Further work must be completed to determine its applicability and impact. It is unclear whether the Washington Legislature fully contemplated the potential impact to the

general fund of providing a sales tax rebate to the RTID projects. Should this funding source be retained, it will still require the passage of the joint regional ballot in November 2007.

For the purpose of this plan, WSDOT assumes that this provision would be retained. There is also a preliminary assumption that 75 percent of the CEVP 90 percent cost estimate reflect taxable expenditures. The sales tax paid on construction in any given year is assumed to be transferred back to the project in the following year.

For the Core Tunnel Alternative, 75 percent of the estimated \$3.63 billion cost is \$2.72 billion, of which \$176.8 million represents the 6.5 percent state sales tax.

Tolling

WSDOT is not currently considering state-level tolls on the viaduct. Specifically, the Viaduct Project's Draft EIS does not evaluate tolled alternatives, in part because traffic analyses and toll studies conducted early in the environmental process predicted relatively low revenues and a high propensity for diversion to other routes as tolls increased.¹⁹ However, funding by tolls is possible under the regional funding options should RTID decide to pursue tolling on one or more regional facilities.

What is the revenue potential from tolls on the viaduct?

WSDOT and RTID studied tolling in the early 2000s. Four planning-grade toll studies looked at various options for tolling the viaduct with and without other facilities tolled; all of these have assumed tolling to manage traffic. Based on those studies, WSDOT learned there are a number of challenges to generating substantial toll revenues on the viaduct, including the two noted below.

1. There is not enough "recurring" traffic congestion to warrant using pricing to manage traffic flow. (Recurring congestion is distinct from congestion caused by accidents, bad weather, etc.)
2. Traffic diversion quickly comes into play with the availability of many alternative routes.

Because the viaduct provides three travel lanes in each direction, the facility does not experience significant recurring congestion delays. This

¹⁹ The Appendix includes a matrix that summarizes a series of studies that have examined congestion pricing tolls on SR 99, with and without other network highways tolled. Copies of the studies are also included in the Appendix.

can be better understood by considering how the viaduct section of SR 99 functions as a limited access highway for about 4.5 miles through downtown Seattle. At each end of this segment, the highway transitions to surface arterial roads with lower speeds, capacities, and access restrictions. Future recurring congestion delays are also expected to be relatively minor, as traffic growth is expected to be less than 1 percent per year.²⁰ Any congestion delays are expected to be primarily confined to one travel direction during a portion of the morning and afternoon commute periods.

The lack of a significant congestion “problem” makes the viaduct a less than ideal candidate for tolling from a congestion pricing or traffic demand management perspective. Preliminary estimates prepared in 2003 predicted annual gross toll revenues ranging from \$10 million to \$17 million per year for 2014 demand conditions.²¹ The City of Seattle has suggested that WSDOT conduct an updated analysis to see how recent changes in the traffic model, the design of the project, and our understanding of users’ value of time would affect toll revenue projections.

While tolling from a purely revenue perspective was not examined in previous studies, it is likely to be problematic because of the undesirable side effects of increased traffic on the many available parallel routes. Higher-than-congestion pricing toll rates would cause additional toll diversion to I-5 and the downtown Seattle street grid, both of which do not have much available capacity for additional vehicles at many times of the day.

How much funding could net toll revenues contribute to the viaduct?

Even if gross toll revenues were \$25 million annually (nearly double the results of the four preliminary tolling studies), net revenues available for bond repayment would be substantially less after accounting for the cost of toll collection, operations and maintenance for the facility.²² Factoring in the facility O&M costs and borrowing toll collection and customer service estimates from those developed for the SR 520 Project, net revenues are predicted to be in the range of \$11 million to \$14 million.²³

²⁰ WSDOT. 2004. SR 99: Alaskan Way Viaduct & Seawall Replacement Project Draft Environmental Impact Statement, Appendix C - Transportation Discipline Report.

²¹ King County. 2003. Toll Revenue Estimates for the Regional Transportation Investment District’s Southwest King County Projects. (See the Appendix)

²² The \$25 million figure acknowledges that since the earlier toll studies, improvements have been made to the PSRC’s travel demand model used on the project, some of which cause it to more accurately reflect the congestion delays on alternative routes, and thus, could marginally improve the predicted viability of tolls on SR 99.

²³ Assuming \$3.1-4.0 million per year in facility O&M plus similar toll collection and customer service costs as those estimated for the SR 520 bridge at \$7.9 million to \$10.2 million (see the SR 520 Finance Plan).

If gross toll revenues were at the low end of the range of preliminary estimates, net toll revenues available for bonding could be as low as zero.

Until detailed financial modeling is undertaken, bonding this net revenue stream of \$11 million to \$14 million is anticipated to yield up to \$150 million in project funds during construction. We have assumed that the range of project funding from tolls is \$0 to \$150 million.

Aside from funding, are there other reasons to toll the viaduct?

Revenue aside, there may be other reasons for either RTID or the state to toll SR 99. One reason may be the notion that users of the facility should pay more than typical taxpayers who do not use the facility. This argument has been made given the relatively high cost of the project, and the fact that tolls will be charged on the new SR 520 bridge. A second reason may result from the tolling policy recommendations expected from the Washington State Transportation Commission's comprehensive statewide tolling study.²⁴ One central theme of the tolling study's interim report is the use of pricing to manage traffic to make the system flow more efficiently and reliably. The study is further considering a tolled SR 99 as part of future regional toll network. The viaduct section of SR 99 would likely be a more viable toll facility as part of a larger system, particularly if the primary parallel corridor, I-5, is also tolled.

The tolling studies will be updated as more information becomes available.

²⁴ Washington State Transportation Commission. January 2006. Washington State Comprehensive Tolling Study: Interim Report.
<<http://www.wstc.wa.gov/Tolling/default.htm>>

Anticipated - Local

Open Space Funding (Tunnel Only)

Mayor Nickels announced in 2005 his intention to create an Open Space Impact Fee for development in Seattle's urban centers. The impact fee is designed to address the open space needs in urban center neighborhoods over the next 20 years and is authorized under the state of Washington's Growth Management Act. In the downtown Center City, the City of Seattle estimates that it will need to create approximately 13 acres of open space during that time horizon.

If the tunnel is selected as the approach for replacing the viaduct, the project could create up to 6 acres of new open space on Seattle's waterfront, 45 percent of the overall 20-year plan. According to the City's calculations, this amount of open space will qualify for about \$60 million in open space funding.

Open space funding may also be accessed through the State's Office of Interagency Committee (IAC). The IAC creates and maintains opportunities for recreation, protects the best of the state's wild lands, and contributes to the state's effort to recover salmon from the brink of extinction. The IAC manages 10 grant programs, using a combination of federal and state funds that help communities build parks, boating facilities, trails and play fields.

Grants (usually up to 50 percent of the project costs) are awarded by the IAC through a public, competitive process to municipal subdivisions of the state, Native American tribes, state agencies, and in some cases, federal agencies and nonprofit organizations. The Seattle Parks Department is an active participant in seeking funding through this source.

These two funding sources combined may contribute up to \$80 million to the cut and cover tunnel project.

City of Seattle — Transportation Funding (Tunnel Only)

For the Tunnel Alternative, the City of Seattle may write grants for funding from one or more small budget transportation-related sources (e.g., the Transportation Improvement Board, the Freight Mobility Strategic Investment Board, and the federal formula funding distributed by the Puget Sound Regional Council). Total revenue is anticipated to be between \$0 and \$20 million, with this amount possibly going as high as \$40 million. No funding from this source would be pursued if the Elevated Structure Alternative were selected.

City of Seattle – Public Utilities

Seattle utilities in this project include Seattle City Light (SCL) and Seattle Public Utilities (SPU). In order for utilities to contribute to the project by paying for the relocation of utilities, they must present their request to the Mayor and the Seattle City Council as part of their normal budget discussions. The cost of relocating utilities may be passed along to rate payers.

During the 2005 CEVP process, engineers estimated the cost to relocate both electrical and water/sewer utilities would be approximately \$400 million. Should the cost of the project increase due to an increase in utility relocation costs, that additional cost would be covered by utilities, up to a total of \$500 million. Again, for the purpose of this report, since we are assuming 2005 CEVP costs, the appropriate number for the analysis in this report is \$400 million.

In a letter to the city council chair dated February 17, 2006, both utilities stressed these cost estimates were subject to change as engineering progresses. SPU is exploring alternative financing mechanisms in addition to 100 percent rate-based financing. It is anticipated that SCL will pay for relocation costs out of the agency's capital budget. The impacts to customers are unknown at this time.

City of Seattle — Local Improvement District (Tunnel Only)

The City is considering a special real estate benefit assessment district or local improvement district (LID). Under a LID, adjacent properties that would benefit from the public investment in a tunnel are identified, and estimates are made for the likely benefits that would result after the viaduct is removed. The property owners within the LID would be required to pay a special assessment according to a formula related to their benefit for a period of 15 to 20 years. Typically, it would be demonstrated to property owners that the assessments in sum are less than the expected increase in benefits.

LID assessments would likely be tied to particular elements of the project to create a nexus between the assessments and specific factors contributing to increased property values.

A LID can be an important funding mechanism for building consensus in an overall funding package. By recognizing that some property owners would receive an exceptional benefit from the public investment in the tunnel alternative, LID assessments may help to convey that those who stand to benefit more should also pay more.

In Seattle, property owners petitioning the city can form a LID, or the city council may adopt a resolution of intent to form a LID. A LID by council

resolution can be blocked if property owners representing 60 percent or more of the assessed valuation protest the resolution. That said, a LID was successfully established in 2005 to provide about \$26 million in funding for the Seattle Streetcar project in the South Lake Union neighborhood, north of downtown. Exhibit 10 shows the calculated benefits of a new street car to property owners (referred to as special benefits, which primarily include property value increases associated with the development of the street car line), the proportion of special benefits allocated to LID payments, and the proportion of total project costs covered by LID funds.

Exhibit 10: Seattle Street Car LID Facts and Figures²⁵

Category	Value
Total “Before” Property Values	\$5.36+ billion
Total “After” Property Values	\$5.43+ billion
Preliminary Special Benefits (SB) Estimate	\$69.7 million
SB % of Total “Before” Value	1.3%
LID % of Total SB	36.9%
LID % of Total Project Cost	52.5%

For purposes of this finance plan, we have assumed that if a LID resolution were adopted, net proceeds from bond financing would be between \$50 million and \$250 million, distributed in the final two or three years of construction.

Note that this funding source only applies to the Core Tunnel Alternative.

Port of Seattle — Capital Improvement Plan

In November 2005, the Port Commission voted to include in their 10-year capital improvement plan the potential for the Port to contribute to the replacement of the viaduct. The Port allocation could be as high as \$200 million. The funding could be appropriated over a 10-year period beginning in 2008 or 2009. The Port Commission will vote to actually appropriate funds money for the viaduct replacement at a later date.

²⁵ City of Seattle. July 2005. “South Lake Union Streetcar: Preliminary Special Benefits Study.” Power Point Presentation given by Bruce C. Allen Associates Inc.

How and when will more information about the likelihood, range, and disbursement schedule of the anticipated sources be obtained?

On May 16, the Administrator of the WSDOT Urban Corridors Office sent a series of letters to persons within the various agencies that would be able to provide additional information on the funding sources described in this plan. Letters included a series of specific questions regarding funding amounts, risks to funding, and documentation showing commitment. Responses from these letters are expected by August 1, 2006. Exhibit 11 provides a summary of the letters that have been sent, and the Appendix contains copies of these letters. The Appendix also includes correspondence from the Seattle Department of Transportation (SDOT) concerning public utilities funding.

Exhibit 11: Letters Sent by WSDOT Regarding Secured and Anticipated Funding Sources

Letter Recipient	Title	Organization	Funding Inquiries
Mr. M. R. Dinsmore	CEO	Port of Seattle	Port of Seattle funding
Mayor Gregory J. Nickels	Mayor	City of Seattle	Various
Mr. Douglas B. MacDonald	Transportation Secretary	WSDOT	Future state funding
Mr. Dan Mathis	Washington Division Administrator	FHWA	SAFETEA-LU, Annual Federal Appropriations, Reauthorization
Ms. Joni Earl	CEO	Sound Transit	Sound Transit Phase II
Councilmember Shawn Bunney	Chairman	Regional Transportation Investment District	RTID

After WSDOT receives responses from these letters, the new information received will be incorporated in the project’s finance plan.

What other potential funding may be available?

This category of funding includes sources that may have come up in project discussions and/or were otherwise initially identified as candidates, but have not been quantified at this time. In general, the reasons why dollar ranges have not been assigned to the “other” funding sources include low probability of funding, insufficient information available, and/or limited applicability to the project.

Public-Private Partnerships

Public-private partnerships (PPP) are often thought of more as project delivery mechanisms and/or tools that bring greater certainty to cost elements, rather than funding sources. However, there are some limited applications that may provide private equity that potentially increases the level of funding brought to a project. In order to understand this, it is useful to provide some background context on the topic of public-private partnerships and the legislation that applies to them within Washington state.

What are public-private partnerships?

The National Council of Public-Private Partnerships defines a PPP as “a contractual agreement between a public agency (federal, state or local) and a for-profit corporation. Through this agreement the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.”²⁶

The Appendix provides additional detail regarding the different forms of PPPs.

How has Recent Legislation Impacted PPPs?

In terms of facilitating private sector participation in a way that could bring additional project funding to the project, the Transportation Innovative Partnership Program (TIPP) legislation includes one potentially limiting constraint: it precludes private sector debt financing by requiring that project debt be issued by the state treasurer.²⁷ While there are many examples of publicly issued debt providing project financing to private entities, this provision could reduce competitive interest from the private sector if it were to constrain the opportunities for the private sector to take on certain risks associated with a revenue stream under the private concession model. Private equity is attracted to opportunities that create an upside potential for profit from higher than expected revenues; the state’s current TIPP is untested in its ability to attract private equity.

²⁶ <http://ncppp.org/howpart/index.html>

²⁷ Revised Code of Washington Section 47.29.060(3) states “For any transportation project developed under this chapter that is owned, leased, used, or operated by the state, as a public facility, if indebtedness is issued, it must be issued by the state treasurer for the transportation project.” <<http://apps.leg.wa.gov/RCW/default.aspx?cite=47.29.060>>

However, this TIPP constraint may be overcome through the use of the new federally authorized, tax-exempt Private Activity Bond (PAB) pilot program for transportation projects. PABs were recently included in SAFETEA-LU to serve as an additional means for attracting private investment and financing participation while retaining the advantage of low-cost tax-exempt debt financing.²⁸ To take advantage of the PAB pilot program, debt needs to be issued by a public agency even though the entity with the obligation to repay principal and interest could be a private party.

How might a PPP be applied to the Viaduct Project? Are there opportunities for additional project funding?

The authority granted under new legislation may not provide a lot of new potential in advancing the Viaduct Project, though further assessment of options is warranted. In any event, the advantages must be carefully weighed against the challenges and risks associated with the implementation of a public-private partnership.

Typical PPP applications provide public agencies greater flexibility to accelerate project delivery by:

- Using design-build or other alternative contracting procedures
- Authorizing the imposition of tolls or other user fees to fund improvements;
- Expediting project delivery by streamlining project approval processes (project selection and procurement, environmental reviews, preliminary engineering, etc.,)
- Creating separate legal entities to issue public debt

Many of the above PPP benefits of the TIPP are already available to WSDOT under separate statutes:

- WSDOT already has design-build authority for major projects.
- Since RTID has authority to impose tolls, a PPP is not required to institute a tolling regime.
- The opportunity to expedite project delivery in contracting, right-of-way acquisition, financing and environmental compliance is available under SEP-15, a new, experimental FHWA program, whether or not projects are procured through PPPs.²⁹

²⁸ For details on private activity bonds, see
<http://www.fhwa.dot.gov/ppp/private_activity_bonds.htm>

²⁹ Special Experimental Project Number 15 or SEP-15 derives from section 502 of title 23, and allows the Secretary of Transportation to waive the requirements and regulations of title 23 on a case-by-case basis. Specifically, SEP-15 allows FHWA to experiment in four major areas of project delivery - contracting, right-of-way acquisition, project

The one provision of Washington’s TIPP that potentially provides a new public-private partnership opportunity is the ability for a private partner to provide project financing, either in whole or in part via the long-term private concession model. Under this option, which requires a dedicated revenue stream such as tolls, the private party would deliver the project, and subsequently operate and maintain it under a long-term lease (typically 50+ years). In this case, the private party would not only have access to a longer period of revenues than would be considered in a traditional tax-exempt bond financing, but it would also receive “tax ownership” of the facility. The latter allows the private party to take advantage of depreciation benefits against the income generated, which enables them to bring more capital funding to the project than would otherwise be the case.

As previously noted, the state is not currently planning on tolling SR 99, and RTID has not yet considered whether or not to apply their authority to toll the viaduct. In light of this, when combined with the relatively low expected capital contribution of tolling and the need to arrange financing through the PAB program, the likelihood of attracting a private partner to bring additional equity investment (capital funding) to the project is currently very low.

For a more in-depth discussion of what the private toll road concession model is and how it could work to potentially generate additional project capital funding, the reader is referred to the SR 520 Project Finance Plan in Tab Three of this notebook.

Other - Regional

As of time of writing, other than those sources tied to RTID, no other regional funding sources are likely to help pay for the Viaduct Project.

Other - Local

City of Seattle — General Fund (Tunnel Only)

The City of Seattle General Fund allocates more than \$650 million each year towards arts, culture and recreation; health and human services; neighborhoods and development; public safety; utilities and

finance, and compliance with the National Environmental Policy Act (NEPA) and other environmental requirements. While FHWA has long encouraged increased private sector participation in Federal-aid projects, SEP-15 allows FHWA to actively explore needed changes in the way the oversight and delivery of highway projects are approached with the goals of reducing congestion and preserving our transportation infrastructure.

transportation; debt, capital and contingency; and administration expenses. While no specific funding amounts have been allocated from this fund for the Viaduct Project, it is discussed as a possibility from time to time.

Tax Increment Financing

Currently, tax increment financing is generally not an option in Washington due to constitutional restrictions. Specifically, it may violate the uniformity of taxes provision of the state constitution. Recent legislation states: “The main legal impediments under the State Constitution include: the requirement that all property taxes must be uniform on the same class property within the territorial limits of the authority levying the tax; the prohibition on the lending of state credit; and the dedication of state property tax revenues to fund the common schools.”³⁰ Various legislative efforts have been made to address these concerns.

Tax increment financing is a tool for capturing a portion of rising property tax receipts to help fund redevelopment and community improvement projects. With federal and state sources generally less available, tax increment financing has become an often-used mechanism for municipalities throughout the United States. Cities use tax increment financing to finance public infrastructure, land acquisition, demolition, utility projects, park development, and other improvements. When a particular investment project benefits adjacent properties, these properties appreciate in value faster than they would without the investment. Tax increment financing works by capturing a portion of the future property taxes that would be paid on the increased value, and dedicating them to finance a portion of the project’s capital costs.

Tax increment financing is most effective at generating substantial revenue from community redevelopment of blighted areas or from new “greenfield” development, where such development contributes to increasing property values. In such cases, tax increment financing may be used to help pay for infrastructure that facilitates new or re-development. The real estate adjacent to the viaduct is not particularly degraded, though if the Tunnel Alternative is chosen, removal of the existing viaduct will likely attract redevelopment adjacent to the corridor north of Pioneer Square.

There is a second factor that limits tax increment financing’s contribution of significant capital. Overall tax revenue growth is constrained by a state initiative that passed in 2001. Initiative 747 limits total annual property

³⁰ Engrossed Second Substitute House Bill (E2SHB) 2673, passed by the legislature in 2006. <http://www.leg.wa.gov/pub/billinfo/2005-06/Pdf/Bill%20Reports/House/2673-S2.HBR.pdf>

tax levy increases to 1 percent or inflation, whichever is lower (plus the amount resulting from new construction and increases in valuation of state-assessed property). This means that any property tax revenue attributable to the impact of this project would be offset by an equivalent tax revenue decrease elsewhere in the jurisdiction in order for total property tax collections to remain within the 1 percent cap.

Although a property tax-increment financing mechanism does not exist in the state of Washington, municipalities may dedicate new tax revenue streams to a specific project. If a project catalyzes new construction, the value of that new construction will increase a municipality's property tax base. The City of Seattle is currently conducting a real estate analysis regarding the potential for new construction that may be generated by the core tunnel alternative.

In summary, tax increment financing does not appear to be especially beneficial compared to other value capture alternatives such as a local improvement district (discussed previously). The City of Seattle may have additional information in the future regarding a potential dedication of new tax revenues to the Viaduct Tunnel project due to new real estate and commercial activity.

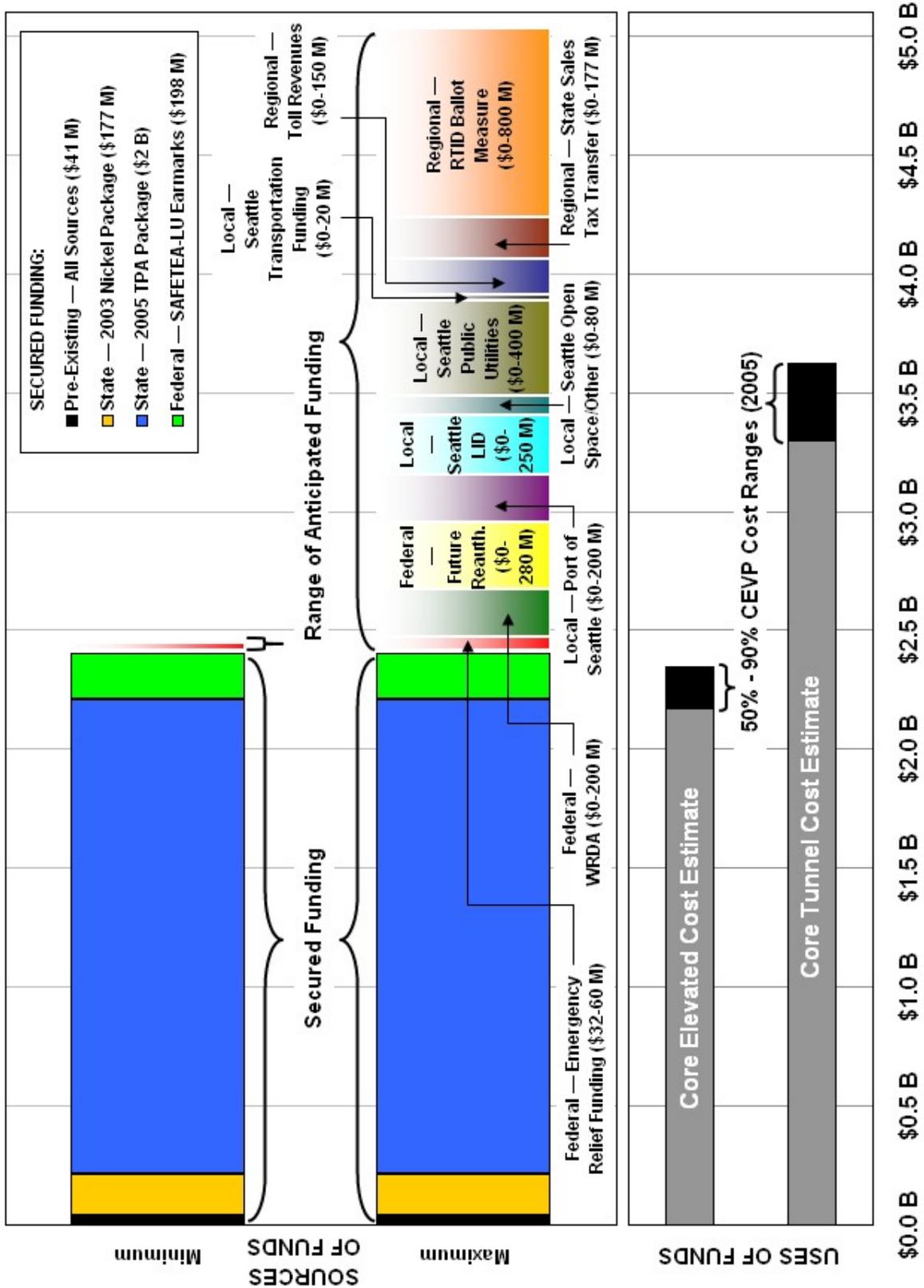
Is there a gap between the sources and uses of funds?

Building on the funding plan information presented in Exhibit 6, Exhibit 12 presents the current status of secured and anticipated funding sources and the corresponding cost estimates for the two alternatives. In the exhibit, the bar labeled “minimum” shows the range of funding that would be available if the lowest level of funding for all of the anticipated sources were received. This total would be nearly \$2.5 billion —enough to fund the Core Elevated Structure Alternative, which is estimated to cost about \$2.4 billion (90 percent CEVP), but not enough to cover the Core Tunnel Alternative, which may cost \$3.6 billion.

The bar labeled “maximum” represents the range of funding available to the project if the highest expected amount from each anticipated funding source were received. The majority of the additional funding shown in this bar comes from regional sources, including the \$800 million from the RTID January 2006 plan as well as toll bond proceeds should RTID elect to pursue tolling SR 99. Although unlikely, should all of these funding sources be achieved at their maximum levels, collectively they would be more than adequate to fund the Core Tunnel Alternative.

Even if some of the anticipated funding sources do not materialize at their maximum levels, there may still be sufficient funding for the Core Tunnel Alternative. If the joint RTID/Sound Transit regional ballot were to fail, and the maximum amount of funding were supplied by all of the remaining, non-regional anticipated sources (excluding regional toll revenues and state sales tax transfers, which are both contingent on RTID), the resulting total of secured and anticipated funds of \$3.7 billion would be just sufficient to cover the 90 percent CEVP costs of the Core Tunnel Alternative.

Exhibit 12: Sources and Uses of Funds



More will be learned about the size and likelihood of the anticipated funding sources over the coming months. WSDOT has solicited input from the various stakeholders and funding agencies discussed previously, and responses are expected by August of this year.³¹

³¹ See the Appendix for copies of the letters sent to various funding agencies.

Other Funding Questions

If other projects overrun their budgets, what would be the risk to the funding of this project?

Typically, when a project overruns its budget, the scope of other projects may be cut, or funds from other projects may be “donated,” depending on projects’ relative priorities. WSDOT does not assume that the Viaduct Project would be forced to reduce scope or budget to cover other projects’ overruns.

The SR 520 and Viaduct projects are considered priority projects in the state. While revenue generated from the state Nickel and TPA packages may fluctuate in total and other projects may have budget problems, it is assumed that state program funds committed to these two projects will remain a priority and will not be reduced for any reason. Federal earmarks are unlikely to be moved from one state’s project to another state’s project, so overruns elsewhere are unlikely to affect the Viaduct Project. Those sources that have not been secured might be affected by needs elsewhere.

Can “creative financing” fill in funding gaps?

Would bonding close funding gaps?

Bonding is sometimes offered as a strategy for closing a funding gap. Selling bonds is borrowing money to pay for construction sooner, and paying that money back — with interest — over time. Bonds do not create “new money.”

Bonds have already been used as a financing tool at the programmatic level. Part of the revenue generated by the 2003 Nickel Package and 2005 TPA funding packages has been leveraged to sell bonds, and if the regional ballot measure passes, RTID is also expected to sell bonds. A share of the funding to be received by the projects in these programs — including the Viaduct — already represent bond proceeds. Because funding streams have already been bonded, they cannot be bonded a second time.

In addition, the potential contributions of net toll revenues and LID assessments to the overall funding of the Viaduct Project also represent bond proceeds.

Could one of the federal innovative finance programs, such as TIFIA or GARVEEs, help to close the funding gap?

The Transportation Infrastructure Finance Innovation Act (TIFIA) program provides federal credit assistance to nationally or regionally significant surface transportation projects, including highway, transit and rail. Any type of project eligible for federal assistance through surface transportation programs under Title 23 or chapter 53 of Title 49, USC (highway projects and transit capital projects) is eligible for the TIFIA credit program. The TIFIA credit program consists of three types of financial assistance: secured loans, loan guarantees and lines of credit.³²

In general, TIFIA provides a project with either an opportunity to bolster the credit-worthiness of revenues to be pledged to repayment of debt in order to seek better terms, or it provides an additional loan, thereby resulting in a higher level of borrowing for a given revenue stream. TIFIA is not an additional source of funding; rather, it is a tool intended to “strengthen” a dedicated project revenue stream that might otherwise be too variable or uncertain to fully leverage for bond sales.

Strengthening the revenue stream reduces the cost of a project by lowering borrowing costs. In the case of the taxes and fees pledged to repay the bonds to be sold under the Nickel and TPA packages, these program revenues tend to be very stable and predictable. Because Washington state already has an excellent credit rating (Exhibit 13), the state is able to obtain favorable borrowing terms without TIFIA. If RTID were to separately bond their revenue streams without the state providing a backstop, it is possible that TIFIA could improve their credit rating and thus lower borrowing costs.

Exhibit 13: Washington State Long Term Bond Ratings (2006)³³

Rating Service	Rating
Fitch Investors Service, Inc.	AA
Moody’s Investors Service	Aa1
Standard & Poor’s Ratings Services	AA

Another federal program involves a Grant Anticipation Revenue Vehicle (GARVEE), which is a specific type of debt financing instrument authorized to receive federal reimbursement of debt service and related

³² American Public Works Association. 2005-2006. SAFETEA-LU: A Guide to Provisions Related to Local Governments.
<<http://www.apwa.net/Documents/Advocacy/SAFETEA/APWA-SAFTEA-LU.pdf>>

³³ Washington State Treasurer. Accessed 9 May 2006. “Bond Ratings.”
<<http://tre.wa.gov/BondDebt/bondrate.htm>>

financing costs. GARVEEs can be issued by a state, a political subdivision of a state, or a public authority. GARVEEs are a tool for accessing future federal formula grant funding earlier than would otherwise be the case to advance the timeline for financing a project. They do not represent a source of new funding, and the state has not indicated a willingness to pursue this funding option.

Final Remarks

Does the finance plan clearly identify secured and anticipated funding sources?

For each funding source that is secured or anticipated, this plan discusses potential investment in this project and contingent factors associated with each. Secured funding sources are those for which:

- We know how much funding is available and when.
- Political issues have been addressed.
- The funding for this project will be available as committed unless there are unusual and unforeseen circumstances.

Anticipated sources, by contrast, have some element of uncertainty. Perhaps an organization or agency has agreed that they will propose committing money to the project but the funding is contingent upon formal board action or upon passage of a vote of the public. Or perhaps the contribution is sufficiently distant in the future that a firm commitment in the present is not possible. Nevertheless, we can be relatively certain that the potential funding organization or agency will ultimately contribute to this project.

Exhibit 6 lists the various funding sources and categorizes them based on preliminary information available to the project in spring 2006. WSDOT expects confirmation from each source, including more detailed information about commitment, funding level and timing, to be provided in August 2006.

Given the information we have today, is the finance plan feasible and sufficient to support project implementation?

WSDOT has prepared this preliminary project finance plan for the Viaduct Project. The Panel is tasked with reviewing the plan and related materials to provide recommendations to the Governor, who, in turn, must determine whether the finance plans, based on current available information, are reasonable and sufficient to complete the two projects as described in their Draft EISs.

The plan presented herein should be sufficient to help the Panel fulfill its role, as it provides the following key information:

- The most current state transportation budget and regional funding bills
- Current state, regional, and local plans that incorporate this project in their long-term view of regional transportation
- An overview of the CEVP process for estimating project costs and scheduling
- The current capital cost estimates in year of expenditure dollars as well as available preliminary O&M estimates
- A description of each possible funding source, including indication as to whether funds are “secured” or “anticipated”, as well as a discussion of the likelihood of these funds being realized

The finance plan for the Viaduct Project will be refined in the coming months, as additional information regarding anticipated funding sources becomes available, including informed predictions regarding timing, risk factors and level of certainty.