520 Tolling Implementation Committee
For Immediate Release

June 12, 2008

Contact: Rick Olson, Director of Government Relations and Communications, Puget Sound Regional Council, 206-971-3050

Conversation about tolling 520 begins next week

SEATTLE – The 520 Tolling Implementation Committee will hold its first meeting next week to begin a conversation with the public regarding tolling options and the best terms for users of the bridge, taxpayers and the adjacent communities. Tolls have been identified by the legislature as a way to help pay for a new 520 between Seattle and Bellevue.

The 520 floating bridge and other structures in the corridor such as the Portage Bay Bridge need to be replaced because they are vulnerable to earthquakes and wind storms. The proposed replacement plan will make traveling safer for drivers and move more people between Seattle and the east side of Lake Washington, on three lanes in each direction. One lane in each direction will be dedicated for carpools and buses.

The Washington state Legislature approved House Bill 3096 in May, which formed the tolling implementation committee and designated as its members:

- Bob Drewel, Executive Director, Puget Sound Regional Council
- Paula Hammond, Secretary, Washington State Department of Transportation
- Dick Ford, Chair, Washington State Transportation Commission

The first meeting of the committee will be held:

Tuesday, June 17, from 3 to 4:30 p.m.
Puget Sound Regional Council Board Room, 1011 Western Avenue, Suite 500, Seattle

The committee was created to evaluate tolling options for the 520, listen to feedback from those impacted by tolls, and submit a report to the governor and Legislature in January 2009. The committee will consult with local jurisdictions around Lake Washington and seek public input through open houses and surveys. A new Web site provides a way for the public to learn about tolling 520 and provide feedback. The site, www.build520.org, will be updated regularly as the committee conducts its work.

The committee is also directed to report on:

- how traffic will change when 520 is tolled and recommend mitigation measures for diverted traffic;
- advances in tolling and traffic technology; and,
- partnerships with the business community.

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520 Tolling Implementation Committee
3:00 – 4:30 p.m.,
Tuesday, June 17, 2008
Puget Sound Regional Council Board Room
1011 Western Ave, Suite 500

Agenda

I. **Introduce committee** (10 minutes)

   Report on ESHB 3096 requirements

II. **Action Items** (20 minutes)

    a. Committee Operating Rules and Election of Chair
    b. Proposed Work Plan and Schedule of Events
    c. Independent Peer Review

III. **Discussion Items** (55 minutes)

    a. 520 Background
        i. 520 project
        ii. Who uses the 520 bridge?
        iii. Financing
    b. Tolling Evaluation Framework
        i. Evaluation criteria
        ii. 520 tolling scenarios
        iii. Traffic diversion analysis

IV. **Public Comment** (5 minutes)

520 Tolling Implementation Committee Contact Information:

Web: [www.build520.org](http://www.build520.org)
Email: [info@build520.org](mailto:info@build520.org)
Physical Address:
520 Tolling Implementation Committee
C/O Puget Sound Regional Council
1011 Western Avenue, Suite 500
Seattle, Washington 98104-1035
What is the 520 Tolling Implementation Committee?

The 520 Tolling Implementation Committee was created by an act of the state legislature in 2008. The Committee is composed of: Bob Drewel, Executive Director of the Puget Sound Regional Council, Washington Transportation Secretary Paula Hammond and Washington Transportation Commissioner Richard Ford.

The Committee is charged with evaluating tolling for financing the 520 Bridge Replacement Project, engaging citizens and regional leadership in the evaluation, enhancing understanding of tolling alternatives, and reporting to the Governor and the state legislature in January 2009.

The act recognizes that $1.5 to $2.0 billion in funding from toll revenue may be required to secure financing for the project. Different approaches to tolling have implications for state resources already secured for the project, toll payers, adjacent communities and the wider region.

The Committee's Approach

The Committee is approaching its task within a framework that will provide answers to a key question: How can funding be secured for the new 520 Bridge under the best terms for taxpayers, bridge users and adjacent communities?

The Committee anticipates a thorough and transparent evaluation of tolling alternatives and broad and inclusive engagement by citizens and regional leadership.

What is the Committee specifically charged with?

The act charges the Committee with:

- Evaluating the potential diversion of traffic from Highway 520 to other parts of the transportation system, including Highway 522, and other state highways (such as I-90 and I-405) and local roadways and recommending mitigation measures
- Evaluating advanced tolling technology
- Evaluating new applications of emerging technology to better manage traffic
- Exploring opportunities to partner with the business community to reduce congestion and financially contribute to the project
- Conferring with mayors and city councils of jurisdictions adjacent to Highway 520, Highway 522 and I-90
• Conducting public work sessions and open houses
• Providing a report to the governor and legislature by January 2009

The Committee is specifically charged with engaging citizens on the following topics:
• Funding a portion of the 520 replacement project with tolls on the existing bridge
• Funding the 520 replacement project and improvements on the I-90 Bridge with a toll paid by drivers on both bridges
• Providing incentives and choices for transit and carpooling
• Implementing variable tolling as a way to reduce congestion

What information is being generated to support this effort?

Staff at WSDOT and the Puget Sound Regional Council are already moving forward with traffic modeling that will inform the Committee’s evaluation and outreach. This information will supplement that developed for the 520 Finance Plan transmitted to the legislature in January. One of the key additions is the concept of tolling I-90 in some form in addition to 520 to address diversion, funding and congestion issues. Information from the initial evaluation is hoped for in July and is expected to lay the foundation for evaluation and outreach.

What types of outreach is contemplated?

Engaging people with a direct interest in the future of the 520 is critical to providing the legislature and governor with information to develop a detailed funding plan for the corridor. The goal is to engage the public in a frank and open discussion of tolling and provide information to enable everyone with an interest to fully participate in the evaluation of different approaches to tolling. The Committee is also charged with conferring with leadership from adjacent jurisdictions and anticipates early interaction to determine the most workable approaches for Mayors and City Councils.

Approaches currently being considered include web-site information, public open houses, surveys, media outreach, and focused meetings with various stakeholders and user groups.

What is the schedule for the effort?

Over the next two months the data required to launch the evaluation will be developed. Committee members will be meeting with key stakeholders to understand their issues and concerns with respect to tolling and financing the bridge, impacts on state and local routes, and developing criteria to consider in evaluating alternatives.

Under the current timetable public engagement could begin in early summer.

Based on the initial rounds of outreach the Committee may ask that additional data be developed to respond to concerns and answer key questions raised. A second round of outreach would likely occur in the fall.
Meeting with Bob Drewel (as Tolling Implementation Cmte.)
Mary 28 / 1 pm / PSRC office

Rick Olsen – Dir of Gov’tal Relations & Communications
MI Mayor Jim Pearman
Linda Herzog – Interim Dep’y CM

See May 12 info sheet on 520 Tolling Implementation Cmte.

Drewel: We will run a transparent, hard-listening process. Agreement among the three cmte members is that Drewel will take on local elected leaders. Cautions that w/o regional cohesion, this won’t work. Asks Pearman “How do you want to be involved / how shd we work with the MI Council?”

Pearman: describes panel conversation May 5/08. MI is ready to describe its interests, but wants to have data / info from the Cmte before taking a position.

Drewel: Enabling law goes into effect June 12.

June 17 at 3 pm at PSRC – 1st public meeting of the Cmte. – Agenda will include:
- What the cmte is / what is its charge
- Review of the data under development

Tolling 520 in 2010 – many different variables to consider in establishing variable tolling program – time of day, wkend/wkday, lane flow / congestion, price variations . . .

Modeling data is expected by mid-July. Decisions / positions prior to that would not be wise / Drewel hopes local elected officials will wait for and use the data they are generating.

The State DOT must produce a finance plan for 520 that includes recognition of $1.5 to $2 billion in toll revenue. A 2007 DOT study indicated that tolling cd raise up to $500 million if begins as early as 2009 with the start of pontoon construction. Project start can be said to be construx of pontoons, but that will not be visible to 520 users.

What about tolling 520 AND l-90. The cmte expects an evaluation of revenue & traffic impacts of tolling both bridges in 2010 and 2016. The cmte also expects an evaluation of tolling only 520 in 2010 and 2016. Legislature will determine which dates tolls wd be in effect. Current law anticipates that tolls cd be placed on 520 in late 2009 – the Cmte has been tasked with getting feedback on the options.

Olson: Central Q for the Cmte is evaluating diversion from 520 when it’s tolled, and proposing mitigations. Four types of diversion and potentially four categories of mitigation to consider:
- Alternative routes
- Alternative modes
- Time of day
- Trips not made at all
Map of routes that will be included in diversion analysis – counts will be taken at numbered yellow circle locations -- #12 & #7 will be immed. relevant to MI.

Drewel: By July Cmte may have some data on preconstruction tolling on I-90, but it won’t be included in the initial info that goes out from the Cmte in mid-July.

If you (MI / Pearman) have something you want us to include in our analysis, tell us now and we will build that into our transparent process. All are welcome to suggest various aspects of the tolling question, including mitigation proposals.

See the Cmte’s web site for info on when and where to send suggestions & questions. (Note that web site is not up yet. Look for it at www.build520.org)

Pearman: We will draft a letter to Drewel suggesting the initial interests of the MI Council. CC to Rick. Get feedback. Then MI Council will edit as appropriate and sign off on it at their 6/21 Council Planning Session.
Bob Drewel, Chair  
520 Tolling Implementation Committee  
c/o Puget Sound Regional Council  
1011 Western Avenue, Suite 500  
Seattle, WA  98104-1035  

Re:  Preliminary Expression of Interests regarding Tolling in the Cross-Lake Washington Corridor  

Dear Chairman Drewel:  

As you and I discussed on May 28, I want to provide you with an early view of the Mercer Island City Council's interests in the work you are doing to assess the potential impacts of, and possible mitigations for, tolling in the Lake Washington corridor. We will closely follow your modeling and data analysis process, and look to be continuously involved in your deliberations. Mercer Island's special place in those discussions is described in the December 1976 Memorandum Agreement on I-90, the Amendment that followed in 2004, and the 2006 letter from the Secretary of Transportation and Governor Gregoire's Chief of Staff. I'm attaching those documents for your convenience.  

As a first step to educate and inform ourselves, the City Council asked State experts on transportation to serve on a discussion panel at our Council meeting on May 5. That panel consisted of our two State Representatives Judy Clibborn and Fred Jarrett, former Senator Jim Horn, former Transportation Commissioner Aubrey Davis, and Transportation Department Deputy Secretary David Dye. This is the panel I mentioned when you and I met a couple of weeks ago. In the discussion following, our Council talked about several principles that express Mercer Island's interests in the tolling question. Below is a preliminary summary of points the City wants to put forward at this early point in your process.  

We all acknowledge that the regional deliberations that follow must rest on the best data we -- specifically your Committee -- can produce. We readily accept your invitation to comment on your modeling results when they are available in July, and to propose additional avenues of research, so Mercer Island's contributions will be data-based and thoughtful.  

As these conversations begin, we submit these preliminary statements of Mercer Island's interests:  

Rights under the I-90 Memorandum Agreement:  
As a party to the 1976 Memorandum Agreement for I-90 and the 2004 Amendment, Mercer Island asserts its rights to consultation and involvement regarding changes to I-90 “with the intent that concurrence of the parties be a prerequisite to [Highway Commission] action to the greatest extent possible.”  

Commitment to Engage in the Analysis and Decision-Making Process:  
Mercer Island understands the importance of financial and mobility modeling, and of thorough consideration of the effects and consequences of tolling, as well as the urgency in making those decisions. The Council commits to engage with the 520 Tolling
Implementation Committee’s data gathering and analysis, to thoughtfully contribute to its deliberations, and to express its own interests and positions clearly throughout the process.

Geographically restricted [contained??] use of toll revenue:
If tolls are placed on SR 520 and on I-90, as a congestion management device or a mitigation for anticipated traffic diversion from SR 520, the revenues derived from tolling these roadways must be retained for transportation construction, maintenance, improvement and mitigation within the cross-Lake Washington corridor.

Sequence of I-90 modifications:
Consistent with previous agreements, Mercer Island expects to see I-90 changes follow this sequence:
- Early SR 520 tolling to generate a revenue stream for bridge replacement (with the smallest possible toll, so as to avoid massive diversion onto I-90);
- Completion of the R-8A configuration;
- Only after MI mobility is secured consistent with the letter and intent of the I-90 agreements and assurances (see attached documents), the center lanes may be given over to Sound Transit for light rail operations. (The City understands that the R-8A lanes may ultimately be tolled as HOT lanes. If that occurs, Mercer Island expects to be consulted and involved in design and implementation.)

Mitigation for decreased access:
In the event that changes to I-90 Mercer Island result in (or anticipate) diminished access to the I-90 HOV lanes, MI must be compensated for such loss with capital and/or service mitigations as secured in the I-90 Agreements.

Thank you for your consideration of these interests at this early stage. We look forward to working closely with you and the other regional players.

Best regards,

Jim Pearman, Mayor

cc:   Mercer Island Council Members
      Representative Judy Clibborn
      Representative Fred Jarrett
      PSRC Government Relations Director Rick Olson
      City Manager Rich Conrad
      Interim Deputy City Manager Linda Herzog

Attachment: Memorandum Agreement on I-90 (dated Dec. 1976)
              Amendment to the Memorandum Agreement (dated Aug. 2004)
              Letter from Tom Fitzsimmons and Doug MacDonald (dated Dec. 22, 2006)
MEMORANDUM AGREEMENT

City of Seattle
City of Mercer Island
City of Bellevue
King County
Metro
Washington State Highway Commission

December, 1976
MEMORANDUM AGREEMENT

WHEREAS, the cities of Seattle, Mercer Island and Bellevue; the Municipality of Metropolitan Seattle (hereinafter "Metro"); and King County by and through their respective councils and the Washington State Highway Commission (hereinafter "the Commission") desire to resolve the disputes which have surrounded the plans to construct an improved Interstate 90 (I-90) facility between Interstate 405 (I-405) and Interstate 5 (I-5); and

WHEREAS, there is a desire to create an environment of cooperation in which agreement is reached among all parties concerned relative to the design of the I-90 facility and related transportation projects; and

WHEREAS, the decisions of the Ninth Circuit Court of Appeals of the United States District Court for the Western District of Washington have required that all alternatives to the proposed highway be studied; and

WHEREAS, all parties hereto state that they have reviewed the proposed highway development and all currently available alternatives to it, including the option of withdrawal and substitution; and

WHEREAS, the I-90 facility from I-405 to I-5, when constructed, must contain all of the social and environmental amenities included in the Commission's previously adopted plans and modifications thereof contained in the Findings and Order of the Board of Review in order to be acceptable to all jurisdictions; and
WHEREAS, the parties believe that construction of the agreed upon I-90 facility will be of definite advantage to all four local jurisdictions because it will provide an excellent transit way between Seattle, Mercer Island and Bellevue; it will eliminate the dangerous three-one reversible lane operation presently employed in that corridor; it will provide improved truck access from the east to Seattle's south industrial/commercial area and port; it will provide improved capacity in the off-peak direction; it will probably provide an improved facility sooner than other approaches; it will provide access to and from I-90 and I-5 south of downtown Seattle eliminating traffic presently going through Beacon Hill residential areas; it will provide many jobs for our citizens during the period of construction; and it will repair the corridor and help knit together the communities now split by U.S. 10 west of the Mount Baker ridge and across Mercer Island; and

WHEREAS, the parties have concluded that withdrawal and substitution is not a desirable option because it would double the local matching monies required and because Mercer Island and Seattle find unacceptable a major highway/transit I-90 facility without extensive environmental amenities which amenities might not be funded under the withdrawal and substitution alternative; and

WHEREAS, it is in the best interest of the citizens of the Puget Sound area and the State of Washington that this segment of I-90 be completed in an expeditious manner; and
WHEREAS, all jurisdictions believe that sufficient public hearings have been held on the project and that no further hearings should be held unless legally required; and

WHEREAS, the parties desire to identify and establish a reasonable assurance of construction of certain priority public transportation facilities which are contained in the 1990 Transportation System Plan for the Central Puget Sound Region and which serve to ensure that I-90 functions as an integral part of the region's transportation system; and

WHEREAS, the parties desire to ensure that these future improvements are consistent with the goals and policies for regional development presently under consideration by the Puget Sound Council of Governments (hereinafter "PSCOG") and the subsequent subregional land use element of the Regional Development Plan for the Central Puget Sound Region;

NOW THEREFORE, in consideration of the mutual and reciprocal benefits accruing to each of the parties hereto, it is hereby agreed as follows:

1. The Cities of Seattle, Mercer Island and Bellevue; King County; Metro and the Commission support the construction of a facility which will accommodate no more than eight motor vehicle lanes which are arranged in the following general manner:

(a) Three general-purpose motor-vehicle lanes in each direction shall be constructed between the South Bellevue Interchange and I-5. In addition, there will be provision for necessary weaving lanes and possible local access across the East Channel, to be determined in accordance with paragraph 1(e) below.
(b) The facility shall also contain provision for
two lanes designed for and permanently com-
mitted to transit use. The eastern and
western termini for these lanes shall be
designed to facilitate uninterrupted transit
and carpool access to downtown Seattle and to
downtown Bellevue in accordance with paragraph
3 hereinbelow. The design shall be such as
to accommodate the operation of the two
transit lanes in either a reversible or in a
two-way directional mode.

(c) The facility shall be designed in a manner
which, as much as practicable, minimizes the
width of the roadway and the taking of land.

(d) To the extent practical, the facility shall
provide priority by-pass access for local
transit to the general purpose motor-vehicle
lanes.

(e) The parties agree that the transit lanes
shall operate initially in a two-way direc-
tional mode, at no less than 45 mph average
speed, with the first priority to transit,
the second to carpools, and the third to
Mercer Island traffic. In the direction of
minor flow, the transit lane shall be restricted to
busses. The parties further agree that the
initial operation of the East Channel bridge
shall consist of only three general purpose auto
lanes in each direction in addition to the transit lanes. In addition, there will be an acceleration lane from the South Bellevue Interchange which will terminate prior to the exit ramp at the East Mercer Interchange. The subsequent mode of operation of the facility shall be based upon existing needs as determined by the Commission in consultation with the affected jurisdictions, pursuant to paragraph 14 of this agreement. That determination will consider efficient transit flow, equitable access for Mercer Island and Bellevue traffic, and traffic-related impacts on Seattle.

2. The I-90 facility shall be designed and constructed so that conversion of all or part of the transit roadway to fixed guideway is possible.

3. The parties recognize that the planning, design and construction of efficient access at the eastern terminus and western terminus of this facility will enhance the operation of I-90 as a regional transportation facility. Therefore, the Commission, jointly with Seattle, Mercer Island, Bellevue, King County, and Metro, as their respective interests and responsibilities may dictate, shall immediately upon execution of this agreement undertake the development of the necessary plans and designs for, and shall further proceed, with
the required public hearings and the preparation of the necessary environmental impact statements in order to obtain maximum eligibility for Federal Interstate funding for the construction of the following projects:
(a) Transit access from I-90 to downtown Seattle;
(b) Transit access from I-90 to I-405 and to the Bellevue central business district;
(c) Transit and general-purpose access from I-90 to the King County Stadium area; and
(d) Transit and general-purpose access from I-90 to arterials serving the north Duwamish industrial/commercial area and the Seattle waterfront;
(e) Transit access from I-90 transit lanes to I-5;
For any of the above projects or portions thereof which are not eligible for Federal Interstate funding, the Cities, the County and Metro with full support of the Commission, shall seek any available funding for such projects and shall make reasonable effort to complete the construction thereof prior to the completion of I-90.

4. The parties further agree, except as otherwise provided in this agreement, that the modified design of the facility will preserve and incorporate all of the provisions for community amenities and for reducing adverse environmental impacts as contained in limited access plans adopted by the State Highway Commission for
(a) the segment of I-90 from the West Shore of Mercer Island to the East Channel Bridge and for
(b) the segment from I-5 to the West Shore of Mercer Island (modified by the Findings and Order of the Board of Review dated March 26, 1973, and the Stipulation to Resolve Certain Issues incorporated therein, including but not limited to the provisions for a full lid tying affected Seattle neighborhoods together. The lid shall be constructed to permit park and/or two-story residential or business construction (not industrial uses) to take place on top of the highway between the Mt. Baker tunnel and 23rd Avenue South. Additional loads may be acceptable following specific agreement between the Commission and the City of Seattle. The Commission agrees to fund the landscaping of the lid and the maintenance thereof except as may be agreed to by other parties.

5. The parties agree that the design of the entire facility shall include the following additional features:

(a) a transit station permitting transfer of transit passengers at Empire Way South or 23rd Avenue South as more particularly set forth in the Findings and Order of the Board of Review.

(b) a direct Highway connection for Rainier Valley to and from the east.

(c) the Commission's plan for preserving access between Seattle communities over adjacent local city streets shall include improvements of South Norman Street between 20th Avenue South and 23rd Avenue South to provide access to the Judkins neighborhood,
this being done in lieu of the development of South Judkins Street as provided in the Commission's adopted plan as modified by the Findings and Order of the Board of Review.

(d) a continuous park/pedestrian link between Judkins Park and the lid over I-90 west of the Mt. Baker Ridge Tunnel.

6. The Commission agrees to participate jointly with the City of Seattle in an I-90 corridor area planning study for the purpose of designing alternative means of redeveloping areas adjacent to the I-90 project in Seattle. The extent of such study shall be defined and agreed to by Seattle and the Commission, and to the extent that the study relates to the effects of the I-90 facility in the corridor, it shall be funded by the Commission.

7. At the option of the local jurisdictions to be exercised within a reasonable time, the Commission shall transfer to the appropriate jurisdiction fee title of all state-purchased lands acquired for the I-90 project but which are outside the finally determined right-of-way lines of I-90 to the fullest extent and at the lowest cost legally possible.

8. The parties hereto agree that they will proceed under established legal processes, including regional transportation planning procedures of PSCOG and consistent with the approved Regional Development Plan of PSCOG, to determine those projects which are of highest priority in the Transportation System Plan and the Transportation
 Improvement Program as the Plan and Program apply to the King County subregion. The parties hereby agree that projects (a) through (g) listed below are of highest priority and shall so indicate in the process of establishing the King County Subregional Transportation Improvement Program, the Regional 1990 Transportation System Plan, and Metro's Comprehensive Public Transportation Plan. The Commission and Metro shall work with the local jurisdictions in undertaking location and design studies for these projects at the earliest possible date commensurate with state, regional, metropolita\ and local planning and priority programming practices. Projects to be considered through these processes shall include, but not be limited to, the following regional components of PSCOC 1990 Transportation Plan:

(a) Transit/carpool lanes and/or Surveillance Control and Driver Information Systems (SC\&DI) on I-5 from I-405 at Tukwila to the King County Snohomish County line:

(b) The park-and-ride lots and flyer stops contained in the approved 1980 Plan as may be modified by Metro:

(c) Provision for a busway or exclusive transit/carpool lane(s) as a part of the SR 99 and SR 509 corridor including a crossing of the First Avenue South Bridge, consistent with Metro's transition planning for this corridor;
(d) Provision for a busway or exclusive transit/carpool lane(s) and/or SC&DI as a part of SR 520 from I-5 to I-405;

(e) Redesign, in a manner acceptable to the City of Seattle, of the lanes where SR 520 meets I-5 and at the Mercer Street egress from I-5 in order to improve transit flow and reduce the congestion on I-5 between Mercer Street and Roanoke Street;

(f) Provision for a busway or exclusive transit/carpool lane(s) and/or SC&DI as a part of I-405 from Bothell to Renton

(g) Provision for exclusive transit lane(s) on I-405 through Bellevue which shall also include provision for a freeway flyer stop and a park-and-ride facility on I-405 between Main Street and N.E. 8th in Bellevue and provision for I-405 access improvements to the Bellevue central business district as determined by the Joint State Legislative/Highway Commission and City of Bellevue I-405 Access Study.

9. The parties agree that the I-90 facility should be operated in such a manner as to encourage growth and development in the presently urbanized areas of King County rather than in undeveloped areas. Therefore, the Commission shall conduct a study in coordination with the parties to this agreement to determine the feasibility and means of metering and controlling local access to I-90 east of Bellevue during peak hours.
10. Seattle, Bellevue, Mercer Island, King County and Metro agree that dedicated public transit rights-of-way through downtown Seattle and through downtown Bellevue are compatible with the public transportation plans of this area and are desirable to be implemented in conjunction with the completion of the I-90 facility.

11. Immediately upon the issuance of the environmental impact statement, another review team comprised of representatives chosen by each of the parties to this agreement shall be established to further monitor and advise the Commission on the development of the design and the implementation of the entire I-90 facility and the I-90 transit access provisions listed in paragraph 3 above. In addition, review teams including elected officials and citizens from Seattle, Bellevue, Mercer Island and King County may be established to further monitor and advise the Commission upon the implementation and design of the I-90 facility.

12. Upon execution of this agreement, the Commission becomes responsible for the design and construction of the facilities described in this agreement that can be funded with federal interstate funds as well as any other facilities referred to in this agreement for which the Commission, by law, has the sole responsibility; and the several parties to this agreement become responsible for the design and construction of the remaining facilities referred to in this agreement; provided that all such undertakings are subject to available funding and legal and procedural requirements. Seattle,
Bellevue, Mercer Island, King County and the Commission agree to process any permits required for construction of the agreed upon facilities in a timely and expeditious manner, as provided by law.

13. It is expressly understood that agreement to the above by the Commission is tentative pending review of (1) the final environmental impact statement to be filed in connection with the project and (2) the hearing record being prepared in connection with the corridor-design hearing held in January and February 1976. It is also understood that the parties have reached this agreement under the assumption and on the condition that the funding for the project, in accordance with the modified design of said project as referred to in paragraphs 1, 2 and 4 and those eligible portions under paragraph 3 which will qualify for Federal Aid Interstate monies, is approved prior to the initiation of construction and shall be funded from federal and state funds, except as agreed to by the affected jurisdiction(s).

14. This agreement represents substantial accommodations by the parties of positions held heretofore. Such accommodations were made in order to achieve a unanimous agreement upon which to proceed with the design and construction of I-90 and related projects. This agreement, therefore, sets forth the express intent of the existing governing bodies that the parties to this agreement understand that their respective governing bodies are limited in the degree to which they can bind their successors with respect to the exercise of govern-
mental powers vested in those governing bodies by law. Accordingly, the Commission will take no action which would result in a major change in either the operation or the capacity of the I-90 facility without prior consultation with and involvement of the other parties to this agreement, with the intent that concurrence of the parties be a prerequisite to Commission action to the greatest extent possible under law.

Dated this 21st day of December, 1976

COUNTY OF KING
By: [Signature]

MUNICIPALITY OF METROPOLITAN SEATTLE
By: [Signature]

WASHINGTON STATE HIGHWAY COMMISSION
By: [Signature]

CITY OF SEATTLE
By: [Signature]

CITY OF MERCER ISLAND
By: [Signature]

CITY OF BELLEVUE
By: [Signature]
AMENDMENT To The I-90 MEMORANDUM AGREEMENT

AUGUST, 2004

Central Puget Sound Regional Transit Authority
City of Bellevue
City of Mercer Island
City of Seattle
King County
Washington State Transportation Commission
August 2004
Amendment to 1976 Memorandum Agreement

WHEREAS, the Cities of Seattle, Mercer Island, and Bellevue; King County; by and through their respective governing bodies and the Washington State Transportation Commission (hereinafter “the Commission”) desire to amend the existing Memorandum Agreement (the Agreement) signed by all parties in 1976 to reflect current and future conditions and demands along the Interstate 90 (I-90) corridor between Bellevue and Seattle crossing Lake Washington via Mercer Island (the “I-90 Corridor”), including increased travel growth, changes in travel patterns, and a reduction in transit reliability; and

WHEREAS, there is a desire among the parties and Sound Transit to add Sound Transit as the Regional Transit Authority with responsibility for High Capacity Transit as a signatory to this 2004 Amendment, but not to the underlying 1976 Agreement, given its role in the region generally and the I-90 Corridor specifically; and

WHEREAS, all parties recognize the I-90 facility as a key interstate corridor connecting the East and West Coasts, Eastern and Western Washington, and recognize its importance as a critical link between major urban centers in King County, and the only means of mobility to and from Mercer Island; and

WHEREAS, all parties acknowledge I-90 as a critical transportation link vital to the economy of the region and the state by providing for the movement of people and goods within the region; and

WHEREAS, all parties agree that the current configuration and operation of I-90 between Bellevue, Mercer Island, and Seattle does not address today’s demands and expected growth in the region; and a new configuration that helps move more people and goods is imperative to manage congestion on what is the busiest east-west corridor in the region; and

WHEREAS, all parties recognize the importance of the environment and thereby seek to preserve and enhance its quality; and

WHEREAS, all parties agree that the ultimate configuration for I-90 between Bellevue, Mercer Island, and Seattle should be defined as High Capacity Transit in the center roadway and HOV lanes in the outer roadways; and further agree that High Capacity Transit for this purpose is defined as a transit system operating in dedicated right-of-way such as light rail, monorail, or a substantially equivalent system; and

WHEREAS, all parties agree to work cooperatively to secure funding at local, regional, state, and federal levels to fully fund both parts of the ultimate configuration of the “I-90 Corridor” (HOV lanes on the outer roadway and High Capacity Transit in the center roadway); and
WHEREAS, all parties have studied many alternatives as participants on the Steering Committee for Sound Transit and the Washington State Department of Transportation’s (WSDOT) I-90 Two-Way Transit and HOV Operations Project (Project), and all parties agree that building HOV lanes on the outer roadways as identified as Alternative R-8A as set forth in the April 25, 2003 Draft Environmental Impact Statement (DEIS) prepared for the project, is an essential first step toward achieving the ultimate configuration; and

WHEREAS, all parties acknowledge that the ultimate configuration is consistent with the region’s transportation action plan, Destination 2030, which focuses on integrated multi-modal transportation systems; describing facilities that weave parts of the region together by crossing county or city boundaries or access major regional activity centers as critical to the region’s transportation system; and specifically calls for safety, maintenance, and capacity investments on I-90 between I-5 and I-405; and high capacity transit in the “I-90 Corridor” between Seattle and Bellevue; and

WHEREAS, all parties agree that I-90 is an integral piece of the regional bike network, providing the only bicycle-pedestrian path across Lake Washington; that the preferred alternative maintains a ten foot bicycle lane as part of providing optimal multi-modal travel in the I-90 corridor for cyclists and pedestrians; and

WHEREAS, the Cities of Bellevue, Mercer Island, and Seattle; King County; Sound Transit, and the Washington State Transportation Commission, as participants of the I-90 Steering Committee, having conducted a thorough evaluation of the performance and benefits of the alternatives, agree that Alternative R-8A has been shown to improve regional mobility by providing reliable and safe two-way transit and high occupancy vehicle operations on I-90 between Bellevue, Mercer Island, and Seattle, and mobility for Mercer Island, while minimizing impacts to the environment, to other users, and to other transportation modes; and is an essential first step toward implementing High Capacity Transit in the I-90 corridor;

NOW THEREFORE BE IT RESOLVED, the parties to this 2004 Amendment agree to the following principles regarding future development of the I-90 Corridor between Seattle and Bellevue:

1. Alternative R-8A with High Capacity Transit deployed in the center lanes is the ultimate configuration for I-90 in this segment;
2. Construction of R-8A should occur as soon as possible as a first step to the ultimate configuration;
3. Upon completion of R-8A, move as quickly as possible to construct High Capacity Transit in the center lanes;
4. Commit to the earliest possible conversion of center roadway to two-way High Capacity Transit operation based on outcome of studies and funding approvals.
5. Minimize construction impacts to the existing bicycle/pedestrian path, and maintain safe access to the path during construction;
6. Maintain the existing width of the bicycle/pedestrian path and to install screen treatments to create a safe barrier between the path users and vehicular traffic; and

7. To the extent of any loss of mobility to and from Mercer Island based on the outcome of studies, additional transit facilities and services such as additional bus service, parking available for Mercer Island residents, and other measures shall be identified and satisfactorily addressed by the Commission, in consultation with the affected jurisdictions pursuant to paragraph 14 of the Agreement, prior to the time the center roadway converts to High Capacity Transit.

King County
By: [Signature]
Its: King County Executive

City of Bellevue
By: [Signature]
Its: Mayor

City of Mercer Island
By: [Signature]
Its: Mayor

Washington State Transportation Commission
By: [Signature]
Its: Chairman

City of Seattle
By: [Signature]
Its: Mayor

Central Puget Sound Regional Transit Authority
By: [Signature]
Its: Chief Executive Officer
STATE OF WASHINGTON

December 22, 2006

The Honorable Bryan Cairns, Mayor
City of Mercer Island
9611 SE 36th Street
Mercer Island, WA 98040

Dear Mayor Cairns:

Thank you for your letter of November 13 concerning access for single occupancy vehicles from Mercer Island to the HOV lane on I-90 after conversion of the center roadway to high capacity transit.

The Governor’s Office and the Washington State Department of Transportation intend to honor our understanding of the agreement reached by the signatories regarding Mercer Island access to HOV lanes. We have concluded that when the center roadway is converted to high capacity transit, Mercer Island residents should be permitted HOV lane access until the HOV lanes are converted to high occupancy toll (HOT) lanes or another tolling regimen. It is important to emphasize that we do not know how long the lanes would operate as HOV lanes, and it is possible that those lanes may be operated as tolled lanes from the time of or even before the conversion of the center roadway occurs.

We would also note that other issues apart from Mercer Island considerations are involved in HOV lane access for Mercer Island. An equitable outcome must take into account the reasonable expectations of all the users of the corridor, including users of transit and other high occupancy vehicles who must be assured that the lane meets performance standards. In addition, the access and mobility opportunities provided for Mercer Island residents include new high capacity transit uses of the corridor as well as the private passenger vehicle uses.

Thank you again for your letter. Please let us know if you have additional questions or concerns.

Sincerely,

Tom Fitzsimmons, Chief of Staff
Office of the Governor

Doug MacDonald, Secretary
Washington State Department of Transportation
About 520

520 is more than just a bridge. It’s a major corridor between job centers and growing communities around Lake Washington. Built in 1963, today’s 520 bridge is vulnerable to earthquakes and windstorms. In addition, the existing corridor is carrying twice as many vehicles as originally planned and is heavily congested during morning and afternoon commute times. Congestion makes the bridge and its approaches a bottleneck between these economic engines of our region.

When 520 was opened to drivers in 1963, traditional tollbooths were used and it was an immediate success with commuters. This popularity meant that bonds used to pay for the bridge were paid off ahead of schedule. When the last toll was collected in 1979, four times as many vehicles were crossing the bridge each day, compared to when it first opened.

It’s time to replace the aging bridge with a safer, more reliable structure. It’s time to build a new corridor that moves more people around the lake and provides better access to the highway. Construction of bridge pontoons will begin in 2009.

The new 520 bridge is scheduled to open in 2014. When the corridor is complete, it will include six lanes, with two general-purpose lanes and one carpool lane in each direction, spanning Lake Washington from I-5 in Seattle to just west of I-405 in Bellevue. The bridge will be designed to withstand major earthquakes and windstorms up to 95 mph.

The new 520 will have carpool lanes and increased transit service that will make bus trips more frequent and reliable. It also will have space for walking or riding a bike across the lake, shoulder lanes to keep traffic flowing when something goes wrong, and new interchanges to reduce traffic impacts and improve communities near the corridor.
Proposed design for the new 520 bridge.
Traffic on 520 today

Puget Sound is a regional economy with regional travel and commutes. You may live in the Wallingford neighborhood in Seattle and commute to a job in Redmond. Or maybe you’re a baseball fan living in Kirkland and make frequent trips to Safeco Field south of downtown Seattle. There are many people who depend on 520 to make work and other trips across Lake Washington, whether they’re running errands during the week or visiting friends over the weekend.

Congestion on the 520 corridor slows down travel for everyone. Traveling at posted speed limits, a trip from Seattle to Bellevue should take 10 to 12 minutes. In contrast, travel from Seattle to Bellevue today can take an average of 30 minutes during the evening commute, and travel from Bellevue to Seattle can take even longer. This increased congestion in the corridor reflects growing populations and job centers in our region.

Between 1960 and 1970, the population on the Eastside more than tripled. Today, busy job centers on the Eastside can mean a crowded commute from Seattle to the Eastside and from the Eastside to Seattle. Since 1993, peak afternoon traffic volumes have been slightly higher westbound than eastbound. Trips on 520 have leveled off at approximately 115,000 per day since 2000.

The number of people choosing to take a bus across 520 has increased over time. Today, there are over 10,000 bus riders on 520 each day. In the morning, there are 122 westbound buses and 45 eastbound buses. In the afternoon commute times, there are 46 buses headed westbound and 113 eastbound.
Funding

Building a new 520 could cost between $3.7 and $3.9 billion. Nearly $2 billion in state and federal contributions have already been secured. Tolls can close the funding gap, but the exact toll rates will depend on how tolling is implemented.

Current funding comes from a variety of state and federal sources:

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Gas Tax</td>
<td>$554 million</td>
</tr>
<tr>
<td>State Risk Pool</td>
<td>$1,072 million</td>
</tr>
<tr>
<td>Federal Bridge Funds</td>
<td>$114 million</td>
</tr>
<tr>
<td>State Sales Tax Deferral</td>
<td>$180 million</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,920 million</strong></td>
</tr>
</tbody>
</table>

How far tolling will go to close the funding gap depends on the answers to a number of questions. For example, should revenue only be used to pay for a new 520 crossing or should it pay for more transit service across the lake as well? What portion of 520 should be tolled? Should drivers who cross the bridge be charged or should drivers pay anytime they use 520 even if they’re not crossing the lake? How will tolling 520 affect commutes on I-90?

The 520 Tolling Implementation Committee is seeking your input on these and other questions.

**Back story: Paying for Transportation Projects**

There was a time when the federal government paid for the lion’s share of our large transportation projects. Dwindling revenue from the federal gas tax means those days are gone. Meanwhile, aging infrastructure around the country means the need for funds is greater than what’s available and there’s stiff competition for federal dollars.

Here in Washington State, the legislature has raised the gas tax twice in recent years to
provide funding for new roads, safer bridges, and freight corridors. More than half of the $2 billion in already secured funding for the new 520 bridge is coming from the state gas tax. The legislature expects that the Puget Sound region’s residents will contribute the remaining funding, likely through tolls. To date, the state legislature has anticipated $1.5-$2 billion may come from toll revenue.
No Toll Booths

When the Tacoma Narrows Bridge opened last summer, Washington State launched an electronic tolling system called Good to Go! More than 70 percent of traffic using the new bridge travels non-stop at highway speeds without stopping at toll booths. Solo drivers on 167 can now use this same electronic tolling system to pay for a quicker trip on the HOT lanes.

The 520 corridor will use 100 percent electronic tolling – no toll booths at all. This means all traffic on 520 can cross without stopping to pay.

With Good to Go! electronic tolls are collected with a transponder, about the size of a credit card. Drivers install the transponder on the inside of their cars’ windshields. If you are on a tolled facility, an overhead antenna links the transponder to your account information, and deducts the correct toll from a prepaid account. Automatic replenishment allows you to easily manage your account by authorizing payments from your credit card or bank account when your account balance gets low.

To use this no toll booth technology, regular users must have pre-paid transponder accounts. However, we know that some vehicles will not have transponders or may be visiting from out of town. These vehicles will have their license plate photographed and can prepay or be invoiced for the toll, which will include an additional surcharge for processing the video. Transponder technology and license-plate recognizing cameras are used today as part of the Good to Go! program on the new Tacoma Narrows Bridge and at tolling facilities around the world.
Congestion Relief

Chronic traffic congestion is one of the most pressing transportation issues in central Puget Sound. As our economy and population continue to grow, so does the time we spend in traffic.

If you’re a cross-lake commuter, you know 520 is congested and you’re probably spending more time in traffic than ever before. Perhaps you already use other alternatives: opting to use one Lake Washington crossing over another, taking transit, or adjusting the time you leave for work or home.

Variable tolling can help relieve congestion on 520

Tolling could help manage congestion on 520. This is done using “variable tolling,” which offers a lower toll for drivers to travel during non-peak times, less busy hours of the day. A lower toll is charged when traffic is lighter than when the corridor is at its highest demand. Because a toll is charged by time of day, variable tolling gives people an incentive to change travel times, reduce optional trips, take an alternate route, or choose transit as an alternative to driving alone. Experiences in other cities in the U.S. and around the world have shown that these fees can help reduce congestion.

When tolls are placed on 520, new transit service will give drivers a less expensive alternative to driving their own cars across the lake during peak commute times. Transit will also become a more reliable choice because carpool lanes will be added to the corridor.

Other technologies will help relieve congestion on 520

Electronic signs above lanes will give drivers real-time traffic information related to speed, congestion, or collisions. These signs automatically change based on current traffic flow conditions to help keep all speeds on the highway harmonized and traffic moving. The signs may tell you the speed to travel to keep traffic moving, that there is an
accident ahead, or how long it will take to drive from one point to another. These traffic
management tools will be independent of the toll structure selected for 520.

The 520 Tolling Implementation Committee wants to hear from you:

- How would variable tolling work for you?
- Would you delay your trip until the toll rate is cheaper?
- Would you pay to have a better commute to or from work? Or, would you choose
to take transit and avoid the toll altogether?
Tolling Choices

Your input will help determine the best way to toll 520. To help you provide feedback, the 520 Tolling Implementation Committee is analyzing several scenarios; results will be available this summer. Some of the issues being considered include:

- **When tolls begin.** Two potential scenarios are being analyzed: toll the existing bridge beginning when construction starts on the bridge facilities, or wait to toll the new bridge once it’s completed. Tolling the existing bridge could help manage today’s congestion, start saving toll revenue to help pay off the new bridge sooner, decrease costs, and possibly lower toll charges over the life of the project. The trade-off is that drivers could start paying tolls as soon as 2009 for a new bridge.

- **Whether to toll only the bridge or the entire corridor.** A "single point toll" (like that used on the Tacoma Narrows Bridge) would only charge those who actually cross the bridge. Alternatively, tolling could occur on both ends of the 520 corridor, or at key on-ramps and off-ramps for 520 travel.

- **When to adjust toll rates.** Tolls could vary by time of day, weekdays or weekend days, or as needed to keep traffic flowing smoothly.

- **How traffic diverts to other routes, modes, and times of day.** If 520 is tolled, drivers may choose other routes or divert to other transportation modes or times of day to avoid the toll. This could mean more drivers go around the north or south ends of Lake Washington, or take I-90. If there is diversion, mitigation measures will be considered, such as investing in other corridors or tolling I-90.

Information from the analysis this summer will help you provide input to the 520 Tolling Implementation Committee on questions such as these:

- Should there be tolls on the existing bridge to start building a new 520?
• Should both the 520 and I-90 bridges be tolled to pay for a new 520 and improvements on I-90?

• Should funding from tolls be used to expand transit service in this corridor?

• What incentives would encourage you to take transit or carpool rather than drive alone?

• Would you change your commute time to take advantage of a lower toll?
Glossary of Terms

Learn more about tolling terms on this Web site or in other information about tolling.

**Active Traffic Management**
Technology that helps reduce congestion and increase safety by giving information and guidance to drivers about traffic conditions. Examples include overhead signs in each lane to slow drivers in advance of a bottleneck, and electronic signs that provide real travel times and guidance about suggested lane changes or reroutes.

**Bridge Toll**
A toll collected to pay for a specific bridge project. One example is the toll on the new Tacoma Narrows Bridge.

**Congestion Pricing**
Generally referred to as "variable tolling." Toll rates that vary, either by time of day, or based upon traffic levels. When tolls vary by traffic levels, the toll rate adjusts automatically based on traffic volumes or speeds to keep traffic moving quickly.

**Cordon Toll**
Electronic tolling at the entrance to a crowded city center or other metropolitan area to keep traffic moving. One international example is London’s Congestion Charging program.

**Electronic Toll Collection**
Collecting tolls without the use of toll booths, generally with an electronic device or computer chip. Drivers do not need to slow down or stop to have their toll collected.

**HOT Lanes**
HOT lanes (high-occupancy toll lanes) offer an option for solo drivers to access high-
occupancy vehicle (HOV) lanes to enjoy a more reliable trip in the carpool lane. Generally, this fee is dynamic; toll rates change with traffic levels to ensure that cars in the lane move at or above a set speed. In Washington, the first HOT lanes project recently opened on SR 167.

**Open Road Tolling**

Similar to electronic toll collection. Tolls are collected without toll booths, generally with an electronic device or computer chip. Drivers do not need to slow down or stop to have their toll collected.

**Variable Tolling**

Toll rates that vary, either by time of day, or based upon traffic levels. When tolls vary by traffic levels, the toll rate adjusts automatically based on traffic volumes or speeds to keep traffic moving quickly. Can also be referred to as "congestion pricing."
Get Involved
You can join the tolling conversation.

We know tolling could mean a variety of things for you. Perhaps you commute on 520 and want to know the future cost of your commute. Maybe you have some ideas about how funds raised by tolls should be spent. If you drive a different route around or across the lake, will tolling 520 lead to more congestion on your alternative route?

Your opinion will help shape how tolling is implemented in the 520 corridor. The 520 Tolling Implementation Committee will compile public comments on the tolling questions in a report to the governor and legislature in January 2009. Here are some initial questions to consider:

- Should there be tolls on the existing bridge to start building a new 520?
- Should both the 520 and I-90 bridges be tolled to pay for a new 520 and improvements on I-90?
- Should funding from tolls be used to expand transit service in this corridor?
- What incentives would encourage you to take transit or carpool rather than drive alone?
- Would you change your commute time to take advantage of a lower toll?

Upcoming committee meetings, along with other public events, will be listed under calendar of events.

You can also submit your input on tolling 520 directly through this web site.

Open Houses
- Dates to be announced soon -
Calendar of Events

The committee is beginning a series of public events where you can bring your comments, questions, and ideas about tolling options. Here are scheduled upcoming events where you can get involved in the tolling conversation.

520 Tolling Implementation Committee Meeting
Tuesday, June 17
3:00 PM
Puget Sound Regional Council Board Room
1011 Western Ave, Suite 500
Seattle WA 98104-1035

Agenda
Library

Here's a library of information related to funding, tolling, and building 520, as well as the latest about tolling from around the country.

520 Bridge Replacement and HOV Project

Project Page

Funding 520

2007 520 Finance Plan

Other Toll Projects in Washington State (current and proposed)

Tacoma Narrows Bridge
SR 167 HOT Lanes Pilot Project
Columbia River Crossing
I-405 – SR 520 to I-5 Widening

Recent Tolling Legislation

House Bill 1773, 2008
House Bill 3096, 2008

Tolling Analysis

PSRC Traffic Choices Study
Washington State Transportation Commission
Transportation Commission Tolling Studies
WSDOT Tolling
Urban Partnership

Other Tolling Programs and Resources

Minnesota's Express Lanes project
FasTrak in California
London's Congestion Charging Program
Future Financing Options to Meet Highway and Transit Needs
Global List of Toll Facilities
U.S. Department of Transportation Value Pricing Pilot Project

520 Tolling Implementation Committee Press Releases
June 11, 2008 – Press Release
Overview

Strong economies rely on effective transportation systems that move commuters, travelers and freight safely and efficiently and provide access to businesses and jobs. The new 4+2 lane SR 520 will improve safety and mobility, providing greater reliability for drivers and transit. A continuous high-occupancy vehicle (HOV) lane in each direction will complete the HOV system from Seattle to Redmond.

The existing SR 520 bridges are vulnerable to earthquakes and windstorms. The SR 520 Bridge Replacement and HOV Project will replace the aging bridges with safer, more reliable structures.

The six-mile project area begins at I-5 in Seattle and extends to 108th Avenue Northeast in Bellevue (just west of I-405).

Why is WSDOT pursuing this project?

SR 520 is one of two east-west crossings across Lake Washington. Approximately 155,000-160,000 people cross the SR 520 floating bridge (Evergreen Point Bridge) each day.

Built in the 1960s, without the benefit of today’s design standards, the Evergreen Point Bridge and the Portage Bay Bridge are vulnerable to windstorms and earthquakes and are at risk of collapse if they are not replaced.

If either of these bridges or their approach structures were to collapse, it could cause serious injury or loss of life, and would overwhelm all major regional highways with re-routed traffic.

The End Result

The project will result in a six-lane SR 520 corridor replacement from I-5 to just west of I-405. The east-west corridor will have four general-purpose lanes and two HOV lanes (currently there are only HOV lanes east of the floating bridge).
The project will replace all existing bridges including the Portage Bay Bridge and Evergreen Point floating bridge with new, safer bridges that are designed to withstand earthquakes and windstorms. Commuters will benefit from better transit reliability and improved travel times between Seattle and the Eastside.

Project Benefits

Safety

The safer SR 520 bridges will be designed and built to:

- Withstand a 1,000-year event earthquake.
- Weather windstorms up to 95 mph.

Reliability

The 4+2 lane improved corridor will help keep people moving with:

- Two general-purpose lanes and one continuous high-occupancy vehicle (HOV) lane in each direction, keeping buses and carpools on schedule.
- Improved highway design, maximizing traffic flow and making it easier for transit and traffic to merge on and off the corridor.
- Improved shoulders, allowing disabled vehicles a place to pull out of traffic.

Mobility

The new SR 520 will move more people across Lake Washington to and from school, work, home, and recreation with more travel options than it does today:

- HOV lanes improve reliability for carpools and buses traveling between Redmond and Seattle.
- A bicycle/pedestrian path provides non-motorized users access to the corridor.
- Floating bridge pontoons will accommodate high-capacity transit (HCT) in the future. Transit agencies will be responsible for determining the best form of HCT for the SR 520 corridor.

Our Partners

WSDOT is the lead agency for the SR 520 Bridge Replacement and HOV Project. Sound Transit and the Federal Highway Administration (FHWA) serve as project co-lead agencies.

In addition to partnering with our co-leads, we are collaborating with local communities, agencies, jurisdictions, and Tribal nations to ensure the most viable design, safety standards and transit connectivity in the corridor.

What is the project timeline?

- **2009** - Supplemental draft environmental impact statement
- **2010** - Final environmental impact statement
- **2012** - Construction begins
- **2014** - New bridge open to drivers
- **2016** - New six-lane corridor open to drivers
- **2018** - Project complete

Currently runoff water drains into Lake Washington untreated. Proposed stormwater treatment wetlands at bridge columns would treat runoff before it enters the lake.

Project Facts

- If the floating bridge were to suffer a seismic or storm failure, travel time between Seattle and Redmond would nearly double from an average of 33 minutes to 55 minutes during the evening commute.
- Both the Evergreen Point Bridge approaches and Portage Bay Bridge have hollow columns that could fail during an earthquake.
- Since 1993, crews have had to seal close to 30,000 linear feet of floating bridge pontoon cracks.
View the updated Project Schedule (pdf 246 kb).

Public Involvement

Your opinions and participation in the project are important to us, and we welcome your involvement. Look for the SR 520 project booth at community outreach events this summer or contact us at the project office.

Environmental Protection

The SR 520 project is committed to being a good steward of the environment and neighboring communities. The SR 520 project will be designed and constructed with neighborhoods, the natural and built environments in mind.

The SR 520 project is committed to avoiding or minimizing the effects the project will have on surrounding natural resources. Mitigation is integral to and inseparable from the project. If project effects on natural resources can not be avoided, they will be mitigated.

Some of the environmental improvements of the project include:

- Stormwater treatment features to treat contaminated runoff water before it enters Lake Washington.
- Restoring and replacing wetlands affected by the project.
- Removing and replacing culverts that currently block fish from passing through streams in the project area.
- Sound walls along the corridor to reduce highway noise in nearby parks and neighborhoods.
- Landscaped lids covering portions of SR 520 to re-connect neighborhoods on both sides of the highway.

You can read more about how the SR 520 project could affect the built and natural environment in our draft environmental impact statement.

Please visit the WSDOT Environmental Services Web site for more information.

Increasing safety is one of our priorities

Current safety standards help keep drivers safe and traffic moving. The new SR 520 replacement corridor will be designed and built to todays safety engineering standards.

Will this project impact tribal resources?

The SR 520 project is seeking input from local Tribes in our planning process. We continue to work with the Muckleshoot, Tulalip, Snoqualmie, Suquamish, and Yakama Nation Tribes. WSDOT will continue to consult directly with these Tribes throughout project development.

At WSDOT we seek to address the concerns of the Tribes by using the process outlined in the WSDOT Tribal Consultation Policy adopted in 2003 by the Washington Transportation Commission as part of the WSDOT Centennial Accord Plan and Section 106 of The National Historic Preservation Act (NHPA).

The NHPA was enacted to address the publics concern that many of the nation's historic resources were being overlooked in the public works project process. NHPA Section 106 requires government agencies such as WSDOT to evaluate the impact of all government-funded construction projects. Under the act, agencies maintain their own preservation program, and are required to incorporate advice from historic preservation professionals.

For more information, visit our WSDOT Tribal Liaison Web page.
Financial Information

The 2006 estimate for the 4+2 replacement with the Pacific Street Interchange was $4.38 billion. We estimate saving from $500 million to $700 million from accelerating the project schedule and reducing the number of pontoons. The new projected cost* of the project is $3.7 - $3.9 billion.

*The project impact plan due in December 2008 may adjust final project costs.

Identified SR 520 project funding sources include:

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Amount</th>
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<tbody>
<tr>
<td>State gas tax</td>
<td>$554 million</td>
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<tr>
<td>Allocation from WSDOT &quot;risk pool&quot;</td>
<td>$1,072 million</td>
</tr>
<tr>
<td>Previously committed federal bridge funds</td>
<td>$114 million</td>
</tr>
<tr>
<td>State sales tax deferral or transfer</td>
<td>$180 million</td>
</tr>
<tr>
<td><strong>Funding from tolls</strong></td>
<td></td>
</tr>
<tr>
<td>Tolls on the new SR 520</td>
<td>$850 million - $1,520 million</td>
</tr>
<tr>
<td>Tolls on the existing bridge</td>
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<tr>
<td>Tolling on I-90</td>
<td>To be determined</td>
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<tr>
<td><strong>Total Funding</strong></td>
<td><strong>$3,250 million - $4,010 million</strong></td>
</tr>
</tbody>
</table>

This table represents the funding sources and tolling options included in the project’s January 2008 finance plan.

WSDOT has also received an Urban Partnership grant from the United States Department of Transportation to improve traffic through tolling, technology and traffic management, transit, and telecommuting.

How can I get more information?

Contact:
For comments and questions about the project, to schedule a community briefing, or to be added to the mailing or e-mail list, please fill out our contact form.

To listen to a recording of the latest project information, please call the SR 520 project hotline at 1-888-520-NEWS (1-888-520-6397).

To contact the SR 520 Bridge Replacement and HOV Project office by phone, call 206-770-3500.

To contact the SR 520 project office by mail:
SR 520 Bridge Replacement and HOV Project
Plaza 600 Building
600 Stewart Street, Suite 520
Seattle, WA 98101

Current SR 520 Bridge Traffic, Wind, Weather & Marine Stats

 وغير أعلاه
2007 SR 520 Finance Plan

Prepared for:

Governor Chris Gregoire

and the

Joint Transportation Committee

Submitted by:

Paula J. Hammond, P.E.

Secretary, Department of Transportation

January 2008
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1. SUMMARY

Funding the SR 520 bridge replacement is a high priority for the state. As Governor Chris Gregoire stated on November 7, 2007, “Safety must be our number one priority and the 520 bridge, a critical link in our transportation system, is one of the top regional safety issues. It is vulnerable to earthquakes and winds, and it must be replaced.”

In 2007, the Washington State Legislature and Governor Gregoire signed Engrossed Substitute Senate Bill (ESSB) 6099 that directed the Washington State Department of Transportation (WSDOT) to prepare a proposed finance plan for the SR 520 Bridge Replacement and HOV Project. ESSB 6099 states that the “…project finance plan must include state funding, federal funding, at least one billion dollars in regional contributions, and revenue from tolling” and must “be tied to the estimated cost of the recommended project solutions…” The intended regional contribution is primarily the funding that would have been provided by Proposition 1, the “Roads and Transit” ballot measure, had it been approved by voters in November 2007.

This plan meets the requirements in ESSB 6099 that a finance plan be provided to the governor and the joint transportation committee by January 1, 2008. The findings of this plan are summarized below.

- **Funding Gap**: There is still a gap between sources and uses of project funding. The challenge lies not just in filling the gap, but in correcting mismatches in the timing of project needs and available funding.

- **Schedule**: Delays in delivering the project will increase the funding gap. Construction inflation costs $100 to 120 million per year of delay, or upwards of $10 million per month. Ongoing work, such as the mediation for the west-side design, could impact the total cost and timing of the project. Alternatively, acceleration of the project could reduce the total project cost.

- **Funding Probability**: There are several funding sources identified in the state transportation budget that remain uncertain. These include $1.1 billion in regional funding proposed in the Roads and Transit ballot measure and some or all of the $200 million in federal transit and highway funding distributed regionally by the Puget Sound Regional Council (PSRC).

- **Toll Revenue**: The 2007-09 state transportation budget identified tolling as a revenue source. This plan examines tolling in more depth than in previous work. Scenarios involving a range of toll rates and how much of the road is tolled were analyzed under two sets of financing assumptions. The analysis concluded that tolling could contribute between $0.85 and $1.52 billion in project funding with tolls beginning in mid-2018 when the new bridge and approaches are completed.

- **Pre-completion Tolling**: Tolling the existing bridge “pre-completion” between third quarter 2009 and mid-2018 could generate an additional $480 to $570
million in pay-as-you-go funding, assuming that all toll revenue is available for project needs. Legislative action to move tolling forward will be required during the 2008 legislative session in order to meet the September 30, 2009 deadline for implementing tolls as a recipient of a federal Urban Partnership Grant.

Exhibit 1 summarizes the project funding needs, the identified funding sources, and some of the available options for closing the funding.

We believe there are some promising options to help close the funding gap, including the positive outlook for tolling. There are also outstanding policy questions that need to be considered before further work can proceed. This finance plan serves to advance the funding discussion and identify those questions.
### Exhibit 1. Summary of Project Funding Needs and Funding Sources

<table>
<thead>
<tr>
<th>TARGET PROJECT NEED</th>
<th>Millions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 Project Cost Estimate</td>
<td>$4,380 M</td>
</tr>
<tr>
<td>Less: Savings from Design Change &amp; Early Construction of Pontoons</td>
<td>($400 M)</td>
</tr>
<tr>
<td>2007 Project Cost Estimate</td>
<td>$3,980 M</td>
</tr>
</tbody>
</table>

### SOURCES OF FUNDS (based on the Governor’s 2008 Supplemental Budget)

<table>
<thead>
<tr>
<th>Sources</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Gas Tax (Nickel &amp; TPA Packages, &amp; Other State)</td>
<td>$554 M</td>
</tr>
<tr>
<td>Allocation from WSDOT &quot;Risk Pool&quot;</td>
<td>$1,072 M</td>
</tr>
<tr>
<td>Previously Committed Federal Bridge Funds</td>
<td>$114 M</td>
</tr>
<tr>
<td>State Sales Tax Deferral or Transfer (similar to TNB)</td>
<td>$180 M</td>
</tr>
<tr>
<td><strong>Subtotal State/Federal Contribution</strong></td>
<td><strong>$1,920 M</strong></td>
</tr>
</tbody>
</table>

| Shortfall / Funding Gap | $2,060 M |

### Funding from Tolls

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 520 Tolls (beginning at completion in mid-2018)</td>
<td>$850 M to $1,520 M</td>
</tr>
<tr>
<td>Pre-Completion Tolling (toll existing bridge mid-2009 to mid-2018)</td>
<td>$480 M to $570 M</td>
</tr>
<tr>
<td>Tolling I-90</td>
<td>To Be Determined</td>
</tr>
</tbody>
</table>

Note: The information in this table does not account for gaps caused by potential mis-matched timing in which project needs occur prior to funding availability.

1. 2006 estimate of probable costs for the 6-Lane Alternative with the Pacific Interchange option as reviewed by the Expert Review Panel.
2. The magnitude of cost savings depends both on design changes and on advancing certain construction activities to avoid the impacts of inflation; full savings requires early pontoon construction to be advanced to the 2009-11 and 2011-13 biennia.
3. The Governor’s 2008 Supplemental Budget proposes full allocation of the risk pool to the SR 520 Project. The risk pool is funded from $800 million in future federal bridge funding and $272 million in future federal Surface Transportation Program (STP) funds.
4. Statutory amendments would be required. A state sales tax deferral would be repaid with future toll revenues.
5. Legislation ESSB 6099 suggested tolls on SR 520. The range of funding generated by tolls is influenced by a number of factors underlying the toll scenarios tested. Toll rates vary by scenario from $5.83 to $10.29 in 2007 dollars for a peak commute period round-trip (7-9 AM and 3-6 PM). All scenarios employ variable toll schedules that provide lower tolls at off-peak times.
6. Assumes all pre-completion net toll revenue would be available for project needs. Pre-completion toll scenarios tested toll rates from $5.83 to $6.86 in 2007 dollars for a peak commute period round-trip. Pre-completion tolling would require legislative approval. The Urban Partnership Grant provides funding for tolling infrastructure.
Next Steps

There are a number of policy questions to be considered that affect project funding. Some of these questions are outlined below.

Should a broader range of tolling scenarios be considered?

Should we include tolls on I-90 as part of a system of cross-Lake Washington travel?

All of the scenarios tested for this finance plan confined tolls to SR 520 between I-5 and I-405. A strong case can be made that SR 520 is part of a system of cross-lake routes that includes I-90, and that tolling I-90 should be evaluated to determine the amount of funding that could be generated. There are two main reasons that tolling I-90 should be pursued further: 1) it is unlikely that the funding gap can be filled by tolling on SR 520 only; and 2) tolling both routes will generate needed revenue and discourage traffic diversion—facilitating better management of cross-lake travel.

What toll levels will the public accept?

What is the appropriate tradeoff between revenues and traffic?

The goal of a finance plan is to balance funding sources with uses. Nevertheless, other considerations enter into the discussion. For example, what toll rates will the public accept? Will people accept tolls before the new bridge construction is complete? If toll rates are set too high, an unacceptable number of travelers may divert away from SR 520, and their compromise travel decisions could potentially impact the levels of congestion on other roads. What is the appropriate tradeoff between raising funds, the number of people served by SR 520, and the impacts of toll diversion?

Should all of the SR 520 toll revenues be dedicated to the SR 520 bridge project or should a portion of the revenue be used for other purposes?

This finance plan assumes that all toll revenues are available to help finance the cost of SR 520 bridge construction. What are the pros and cons of making a portion of the toll revenue available for funding alternative needs such as transit operations? Does the answer to this question affect the public’s view about the tradeoff between higher toll rates and serving the public’s need to travel across the lake?

When is the best time to update this finance plan?

Plans should be updated whenever there is a significant change in the sources or uses of funds.

The SR 520 finance plan changes whenever the project definition changes, the timing of key elements change, as legislation makes new funding sources or financing methods possible, or as other significant decisions occur, such as a decision to provide toll revenue to support transit operations.
Plans should expand the level of detail and include outside validation prior to construction.

The SR 520 project meets the FHWA definition of a “major project”, which places certain requirements that must be met before the project goes to construction. To the extent that the project uses federal funding from any source, WSDOT will be required to complete and submit a detailed finance plan to FHWA (and FTA if transit funding is involved) prior to commencing construction. This expanded financial plan cannot be finalized until after the environmental process is complete and the range of funding sources has been solidified. After submission of the plan to the federal agency, they will review and accept the plan. Annual updates will be then required during construction.

2. WHY HAS THIS FINANCE PLAN BEEN PREPARED?

The 2007-09 state transportation budget identified a number of funding sources for this project. Some of the funding is secured while other sources were identified for further study. This plan provides Governor Gregoire and the legislature with our assessment of the potential amounts of funding these sources could contribute to the SR 520 bridge replacement.

ESSB 6099 requires this finance plan

In 2007, the legislature passed and Governor Gregoire signed ESSB 6099, which laid out a process for moving the SR 520 bridge replacement project forward. There are four primary components of the legislation:

1. Complete a mediation process to select a west side interchange and develop a project impact plan: In June, the Office of Financial Management selected The Keystone Center as the mediators and the mediation is underway. The project impact plan, due in December 2008, is to provide “a comprehensive approach to mitigating the impacts of the project… [that is] agreed to by all appropriate parties.”

2. Develop a long-range plan that will accommodate high capacity transit: We are working with Sound Transit, King County Metro, and the University of Washington to develop a plan for a multi-modal station at Montlake Boulevard East and Pacific Street and a corridor plan for future high capacity transit on SR 520. A draft plan was submitted in October 2007. That plan outlined three key assumptions: 1) that high capacity transit on SR 520 would initially be addressed in the HOV lanes through a bus rapid transit program; 2) that the multi-modal station at Montlake would primarily be a transfer station rather than an HCT terminus or a park-and-ride facility; and 3) that rail across Lake Washington would occur first in the I-90 corridor, and that rail in the SR 520
corridor would not be implemented prior to 2030. The final high capacity transit plan will be submitted to the governor and legislature in December 2008.

3. **Incorporate the findings of a health impact assessment:** The Puget Sound Clean Air Agency and Public Health - Seattle & King County are developing a health impact assessment that will evaluate the project's impact on air quality, carbon emissions, and other public health issues. The recommendations from this assessment will be considered in the mediation process and incorporated into the project impact plan.

4. **Develop a finance plan:** This report fulfills the requirements for submitting a finance plan to Governor Gregoire and the joint transportation committee by January 1, 2008. Specifically, ESSB 6009 states:

   i. *The state route number 520 bridge replacement and HOV project finance plan must include state funding, federal funding, at least one billion dollars in regional contributions, and revenue from tolling. The department must provide a proposed finance plan to be tied to the estimated cost of the recommended project solutions, as provided under section 3 of this act, to the governor and the joint transportation committee by January 1, 2008.*

**How does this finance plan relate to previous work?**

**June 2006 Funding Plan for the Expert Review Panel**

In March 2006, the legislature passed legislation that required WSDOT to prepare a project finance plan for the Alaskan Way Viaduct and SR 520 bridge replacement projects. It specified 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 specified that an Expert Review 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, the Office of Financial Management, and the governor by September 2006.

The panel’s first responsibility was to better define the “uses” of funding — what is the project; how much is it likely to cost; and when are those funds needed. The answers to those questions have been adopted in subsequent work, including this report. For financial planning purposes, the six-lane project alternative costs were assumed. Of the two west side concepts under consideration — the Montlake Interchange and Pacific Interchange options — the more costly Pacific Interchange option was assumed for fiscal prudence. The panel determined that the project would cost $4.4 billion under the then-current assumptions of when the project would begin construction.

The June 2006 finance plan submitted to the Expert Review Panel identified a total of $1.25 billion in funding from state and federal sources. This included $554 million
from state gas taxes and an estimated $700 million generated from future tolls on the new floating bridge. This figure was based on the findings of the 2004 SR 520 Toll Feasibility Study which identified an amount that could reasonably be achieved under a variety of traffic and financing assumptions.

With a total estimated project cost of $4.4 billion and only $1.25 billion of funding identified at the time, the resulting funding shortfall was highlighted by the panel as an area needing further development. The panel also noted at the time that it was early in the project evolution to have a full funding plan.

March 2007 Funding Alternatives Report by the Washington State Treasurer

In the spring of 2007, the Office of the State Treasurer examined alternative revenue assumptions including:

- Tolling the existing SR 520 bridge prior to completing the new facility
- Tolling the parallel Interstate 90 (I-90) crossing, and
- Examining the impacts of different financing methods on the amount that tolling could contribute toward project construction.¹

For this study, WSDOT updated traffic and revenue forecasts. The Office of the State Treasurer’s report assumed that the project being financed was the $4.4 billion 6-lane alternative with the Pacific Interchange option. In the report, it was also assumed that the Roads and Transit ballot measure would pass and would provide $1.1 billion to the SR 520 project.

The Office of the State Treasurer’s report concluded that the project’s funding gap could not be eliminated solely by implementing tolls on SR 520 after the project was completed. The state must either contribute additional funds toward the construction cost or toll both SR 520 and the parallel I-90 crossing.

What new information is included in this finance plan?

This current finance plan also represents an update to the previous work. We have recently developed an approach to generate cost savings of up to $400 million, consisting of a revision to the design of the floating bridge and an advancement of pontoon construction. These savings results in a new estimate of probable cost of $3.9 billion.

In addition, this finance plan updates earlier toll traffic and revenue studies by providing a more in-depth analysis of SR 520 tolling, including a detailed examination of potential revenue from five toll scenarios with and without pre-completion tolling. Potential changes to high capacity transit and increases in capacity on nearby roadway facilities were incorporated in this analysis.

All of the funding sources identified or proposed in the 2007-09 state transportation budget and in the governor’s 2008 supplemental budget are examined. The toll scenarios analyzed identify the key trade-offs associated with different strategies for tolling SR 520.

3. WHAT ARE THE PROJECT COSTS AND FUNDING NEEDS?

The SR 520 project is one of the region’s highest transportation priorities. The floating bridge, Portage Bay viaduct and west approaches are at high risk of failure in the next 20 years and need to be replaced to maintain public safety. In addition, as one of the two east-west routes across Lake Washington, SR 520 is vital to keeping the region moving and supports the health of the regional economy.

The importance of SR 520 to the region and changes to the project’s funding sources are causing the state to update the project’s funding needs and sources, with consideration given to both the timing and magnitude of these needs and sources. There will be additional revisions to the finance plan as the project moves through the environmental and design processes and new information becomes available about potential funding sources.

What is the proposed project?

As described in the project’s Draft Environmental Impact Statement (EIS) issued in August 2006, WSDOT proposes to replace the Portage Bay and Evergreen Point bridges and approaches, replace the existing roadway between Interstate 5 (I-5) in Seattle and 108th Avenue Northeast on the Eastside, and add a new bicycle and pedestrian path. Final project specifications are still being developed.

In December 2006, Governor Gregoire endorsed the six-lane configuration (four general purpose and two transit/carpool lanes) as the alternative that will keep drivers safer, improve reliability for people crossing the lake, provide a dedicated lane for transit and high occupancy vehicles (HOVs), and accommodate future high capacity transit on the SR 520 bridge. The legislature confirmed the governor’s endorsement during the 2007 legislative session and outlined a path for resolving the remaining project issues in ESSB 6099 (described in section 2).

The communities on the east side of Lake Washington have formally supported a six-lane configuration through city council resolutions. The Seattle City Council passed a
resolution supporting a design that improves transit reliability. We are now moving forward with design and planning for a six-lane corridor.

ESSB 6099 also directed a mediation process to develop a project impact plan for “…addressing the impacts of the state route 520 bridge replacement and HOV project design on Seattle city neighborhoods, parks, including the Washington park arboretum, and institutions of higher education.” The results of the mediation process will likely affect the design of the project west of the floating bridge and may affect the project costs and schedule.

**How does the project benefit the region?**

The benefits to the Puget Sound region in general, and the Lake Washington communities specifically, are numerous, and include:

- Rebuilding the west approaches, Portage Bay viaduct, and floating bridge will improve safety by reducing seismic and storm risks;
- Adding an HOV lane in each direction will improve transit reliability and bus and carpool travel times and will complete the HOV system between Seattle and Redmond;
- Improved shoulders between I-5 and Bellevue Way Northeast will improve safety and travel times by allowing disabled vehicles to pull out of traffic and will improve the response times for emergency vehicles and incident responders; and
- Building a new bicycle/pedestrian path across Lake Washington will add commuting choices.

The project will be designed and constructed with communities as well as the natural and built environments in mind.

- Stormwater treatment features will treat contaminated runoff water before it enters Lake Washington;
- Wetlands affected by the project will be restored and/or replaced;
- Culverts that currently block fish from passing through streams in the project area will be removed and/or replaced;
- Sound walls will reduce highway noise in nearby parks and neighborhoods; and
- Landscaped lids covering portions of SR 520 will reconnect neighborhoods on both sides of the lake.
How much does the project cost?

The cost of any project is a function of both design choices and timing. In 2006, WSDOT determined that the most likely cost of the 6-Lane Alternative with the Pacific Interchange option would be $4.4 billion.

We are working to reduce the cost of the project to make it more affordable without sacrificing the commitments that have been made to the public and to the communities on either side of Lake Washington. Recently, two strategies have been developed.

- The preliminary design for the floating bridge included pontoons that could accommodate the weight of high capacity transit (in the form of light rail) in addition to four general purpose lanes and two HOV lanes. We have recently developed a revised floating bridge design concept that reduces the number of required pontoons, allowing for construction cost savings. The reduced number of pontoons will provide the necessary buoyancy for four general purpose traffic lanes and two HOV lanes, as currently envisioned in the 4+2 configuration. These pontoons would be designed to allow for modifications to accommodate future rail in the corridor.

- We are also proposing to advance pontoon construction which would provide the ability to restore the traffic capacity of the existing SR 520 bridge in the case of a catastrophic failure. Advancing this work by almost three years over the original plan will reduce the cost of pontoon construction by not incurring as much inflation.

The combined effect of an alternative design requiring fewer pontoons and advancing pontoon construction represents a cost reduction of $400 million. Expediting construction of pontoons to restore the SR 520 bridge in the event of a catastrophic failure will require advancing significant funding into the 2009-11 and 2011-13 biennia. WSDOT’s February 2008 budget update will include the necessary cash flow to support early pontoon construction. The current estimate of probable cost is now $3.98 billion. If the start of early pontoon construction is delayed beyond the proposed 2009-11 biennium timeframe, the potential cost savings will be reduced.

Changes in project definition, design, or schedule including any resulting from mediation activities, will require updates to the project’s cost estimate.

The biggest factor contributing to rising project costs is delay. The inflationary cost has been estimated at upwards of $10 million per month for each month of delay beyond the planned start of major corridor construction in 2013. As such, the longer it takes to start construction, the more costs will be affected by inflation and price increases.

In recent years, construction inflation has exceeded general price inflation, and energy-intensive highway and heavy construction costs have increased faster than
general construction, in part due to high oil prices. Another contributing factor in recent years has been greater demand for construction materials from growing economies in Asia, with prices moving upwards as the industry struggles to keep up with demand.

- The PPI [Producer Price Index] for highway and street construction inputs soared 43 percent from December 2003 through August 2007; the index for “other heavy construction,” 36 percent.2

With the costs of construction materials rising faster than general inflation, public and private projects across the country are adjusting. Experts differ on their predictions as to when the market for construction commodities will stabilize.

In September 2006, we updated the cost estimates for the SR 520 project to reflect local and international construction market conditions for steel, concrete, asphalt, and diesel fuel. It is also important to note that the cost estimates for the SR 520 project are shown in future or year of expenditure dollars, which reflect the prices that would likely be in effect at the time construction occurs. This includes predictions by experts about inflation rates and construction material and labor costs.

What project development activities are currently underway?

In the 2007-09 biennium, we are continuing project design, advancing the environmental process, and participating in the mediation process so major corridor construction can begin as early as 2013. Meeting this deadline includes preparing the Supplemental Draft EIS for release in 2009. Environmental approval will be received in 2011. While the environmental process continues, early construction of the pontoons will proceed, beginning in 2010.

Final design activities, along with right of way acquisition and project permitting, will begin in early 2011 and are expected to be complete by mid-2013. We will advertise for portions of corridor construction in early 2012, with construction expected to be completed and tolling operations to commence by mid-2018. Other construction-related activities, including demolition of the existing bridge, will carry into 2020.

How do recent developments affect the project’s financial outlook?

As this finance plan describes, there is not enough secured funding to complete the project by 2018. Two options exist to close the gap: identify additional funding sources, and/or reduce the costs of the project.

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Project funding developments

Two events have changed funding options since the spring of 2007 when ESSB 6099 was passed into law (described in more detail below).

- The 2007 Roads and Transit ballot measure failed and replacement regional funding has not been identified.
- The SR 520 project was selected by the U.S. Department of Transportation to receive an Urban Partnership Grant.

The legislature, acting on recommendations that it received from the Blue Ribbon Panel on Transportation, concluded that major Puget Sound transportation projects, including the SR 520 bridge replacement, 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).

RTID adopted its investment plan on May 31, 2007, called “The Blueprint for Progress” which called for $1.1 billion for the SR 520 project in year of expenditure dollars. The plan became the Proposition 1 Roads and Transit ballot measure and was put to the voters residing in the urban areas of King, Snohomish and Pierce counties. Voters’ rejection of the ballot measure in November 2007 leaves the SR 520 project without this major regional investment and leads to consideration of other funding sources.

The U.S. Department of Transportation selected the SR 520 bridge replacement as a priority project to receive federal grant funding to improve traffic through the combined implementation of advanced technology, transit, telecommuting and tolling. The Urban Partnership Grant announced in August 2007 could eventually provide $127 million in federal funding for transit, ferry and highway projects in the region aimed at reducing congestion, including $86 million for the SR 520 corridor. In order to receive the federal dollars awarded for the grant proposal, the state must implement tolling in the SR 520 corridor by September 30, 2009. While the grant would not provide additional capital funding toward the $3.9 billion project cost, it could cover the costs of implementing tolling on the existing bridge, among other activities collectively referred to as the Lake Washington Congestion Management Program.

Moreover, by providing a means to toll the project prior to its completion, the grant creates the opportunity for generating additional toll funding. Pre-completion tolling could be an extremely important revenue stream if the early pontoon construction proposal is adopted because of the timing of this source.

The option to implement tolling on the existing bridge (pre-completion tolling) assumes that tolls would begin by September 30, 2009, consistent with the Urban Partnership Grant conditions. In order for this to occur, the legislature must take action to move pre-completion tolling forward during the 2008 session.
How do the above events impact the analysis and findings of this plan?

ESSB 6099 required that this finance plan be submitted by January 2008. In order to meet this schedule, the traffic and revenue forecasting and its associated initial financial capacity analysis work had to be completed by October 2007.

- **Roads and Transit ballot measure**: The analytical work assumed the Roads and Transit ballot measure package of improvements would be fully in place by 2030. This assumption makes the other routes and transit that would be improved relatively more attractive, decreasing the number of travelers who would be willing to pay tolls on SR 520. Without these road and transit improvements, more cross-lake vehicle travel is projected, and with diminished alternatives, travelers would be more willing to pay a toll on SR 520. Therefore, the assumptions used in the technical analysis result in toll funding projections that are more conservative than if we had assumed that the Roads and Transit measure would not pass.

- **Urban Partnership Grant**: The option to implement tolling on the existing bridge (pre-completion tolling) assumes that tolls would begin no later than September 30, 2009 under the grant-funded Lake Washington Congestion Management Program.

Matching revenues to project needs will change as the total cost or the timing of construction expenditures changes. This report was drafted before decisions could be made on promising new developments in cost reduction or early pontoon construction schedules, so the implications of these changes were only made at a summary level.

4. **WHAT IS THE CURRENT FUNDING PICTURE?**

Several federal, state, regional and local funding sources were identified by the legislature in the 2007-09 state transportation budget. The following sections provide greater detail about the risks and opportunities associated with each funding source, except for the funding contribution of tolls, which is covered in Section 5.

**Nickel and Transportation Partnership Account Fuel Tax Funding**

The 2003 “Nickel” and 2005 Transportation Partnership Account (TPA) packages collectively provide $554 million in state funding for the project. Motor fuel taxes are the primary revenue source supporting these two packages. The funding contributions to SR 520 represent approximately one percent of the Nickel package and approximately seven percent of the TPA package. The SR 520 funding amounts were specified in the respective legislative packages.
Bridge Funds

The 2007-09 state transportation budget has identified $112.7 million in federally apportioned Bridge Program funding for the SR 520 Project. A state programming decision has already been made that this level of funds should go to the SR 520 project. Future disbursements of funds from the federal Bridge Program to Washington state are based on assumptions regarding the successor to the current Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which expires at the end of federal fiscal year 2009. There is a relatively low risk that we would not receive sufficient highway funding from the federal government to make this allocation.

WSDOT Risk Pool Funding

The 2007-09 state transportation budget also identifies $1.1 billion in WSDOT “Risk Pool Funding” (also known as “pooled funds”) for budget years beyond FY 2009. This funding is derived from two federal highway programs, namely the federal Bridge Program and the federal Surface Transportation Program (STP). Future federal disbursements of funds from both programs are based on assumptions regarding the successor act to SAFETEA-LU. Funds from these two programs were described as being available for use by either the SR 520 or the Alaskan Way Viaduct projects. Because the state’s investment in the Alaskan Way Viaduct project is limited to $2.8 billion, only $400 million of the risk pool could be used to pay for viaduct expenditures. The governor is proposing in the 2008 supplemental budget that all risk pool funding be dedicated to the SR 520 project.

Until the U.S. Congress passes a successor act to SAFETEA-LU, the timing of funds from these programs disbursed to Washington state remains uncertain.

Lake Washington Congestion Management Program

The federal government, through the Urban Partnership Grant program, will provide seed money that would allow the state to begin tolling the existing SR 520 bridge in 2009 if the state chooses to accept the grant. For the purpose of this report, we assume the state agrees to accept and meet the conditions of the federal grant.

We would receive approximately $86 million in federal grant funding to develop and implement active traffic management and traveler information systems, and to inform tolling strategy development through the pre-completion implementation of tolls on the existing SR 520 bridge. The grant award itself is not a funding source that contributes to the $3.9 billion project cost. Rather, the $86 million will cover the costs of traffic management and toll collection infrastructure for the pre-completion time period.3

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3 The $86 million Urban Partnership Grant is reflected in Transportation Executive Information System (TEIS) as part of the SR 520 program.
The grant is significant because it provides the means to increase the funding contribution from tolls by implementing them in 2009. Discussion of the “pre-completion” tolling assumptions and revenue estimates occurs in Section 5 of this report.

The funding potential of pre-completion tolling shown Exhibit 1 and elsewhere assumes that all net toll revenues are available for project construction uses.

**RTID Roads and Transit Package**

The primary assumption for regional funding in the enacted 2007-09 state transportation budget was the $1.1 billion contribution from the Roads and Transit package. Voters did not approve the ballot measure; it is unclear whether the region may elect to send a second proposal to the voters or what funding amount would be included for the SR 520 project. Therefore, this plan does not assume any regional funding.

**State Sales Tax Deferral or Transfer**

A component of the proposed $1.1 billion in regional funding noted above was the transfer back to the project of the 6.5% state sales tax paid on applicable project-related construction expenditures, which would equate to $180 million in additional project funding. Because this was a potential component of the Roads and Transit funding proposal, the credit for the state portion of the effective sales tax was not called out separately in the enacted 2007-09 state transportation budget as a source of state funding. With the voters’ rejection of the Roads and Transit package, the state sales tax transfer under current legislation is not available.

However, the governor’s 2008 supplemental budget identifies sales tax deferral as a potential source of funds and it is anticipated that the legislature will consider sales tax deferral legislation for SR 520 during the 2008 legislative session. Sales tax deferral legislation would provide a mechanism for delaying the payment of state sales tax on construction expenditures until after the new bridge is completed. Depending on the mechanism, this may be considered either an additional source of funds or a deferral of a portion of the project cost. The deferred sales tax amount would then be repaid from excess toll revenues over a number of years. A similar state sales tax deferral was employed in the construction financing of the new Tacoma Narrows Bridge.

**Federal Formula Funding Distributed by the Puget Sound Regional Council:**

The 2007-09 state transportation budget identified $200 million in Federal Transit Administration (FTA) funds assumed to come from the federal formula funds distributed by the Puget Sound Regional Council (PSRC). The budget proposed contributions of $25 million each year for eight years beginning in FY 2014. These FTA funds are currently dedicated to transit operations, maintenance, system preservation, bus replacements, and paratransit services for regional transit providers.
Consideration of potential regional funding could be broadened to include Federal Highways Administration (FHWA) funding as well, specifically Surface Transportation Program (STP) or Congestion Mitigation and Air Quality (CMAQ) funds.

In the 2007-09 transportation budget, we were directed to apply for the PSRC-distributed federal funding and will do so as it becomes available.

Things to be considered when evaluating the likelihood of securing FTA and other federal funds distributed by PSRC include:

1. **PSRC Approval Needed:** The state cannot program these federal funds (STP, CMAQ, FTA 5307 and FTA 5309) without approval from PSRC’s Executive Board. This is a decision the Board may choose to make, but the timing, the amount, and the source of funding would be under their control.

2. **Funding Eligibility:** Most of the PSRC-distributed federal funding has strict eligibility rules established by the U.S. Congress. CMAQ funds must be spent on a narrow type of project that has a measurable air quality benefit. Transit funding must be spent on eligible transit capital projects. STP funding has the most flexible eligibility rules. While some aspects of the SR 520 project would certainly be eligible under all of these funding sources, eligibility will need to be demonstrated for any selected project use.

3. **Uncertain Future Funding Levels:** PSRC has already selected funding recipients through federal FY 2010. This is one year beyond the current federal transportation funding act. This means any funding for the SR 520 project would come from future appropriations under the successor act to SAFETEA-LU. While the U.S. Congress is debating the future of federal transportation funding, the current trend is for lower federal appropriations in the future, resulting in less available project funding at the regional level.

4. **High Regional Demand for PSRC’s Transit Funds:** PSRC’s FTA 5307 and 5309 formula funds are primarily used for transit maintenance, system preservation, bus and fleet replacements and paratransit services. Re-allocating these funds to eligible components of the SR 520 project would create a gap in local transit agencies’ budgets. On the other hand, both King County Metro and Sound Transit buses use the SR 520 corridor. Both agencies would need to support a joint application to PSRC to direct some of these funds to the SR 520 project to cover the capital expenditures of certain elements, such as the direct access ramps at 108th Avenue Northeast. An application submitted jointly by King County, Sound Transit and WSDOT to the PSRC is likely to be competitive.

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4 See Title 23 U.S. Code 134.
5. Equally Competitive Non-Transit Funding: During the 2006 project selection process, 192 projects totaling $343 million were submitted for STP/CMAQ funding, all competing for only $127 million available (over a three year period). These projects were a mix of local arterials and state highways that do not have significant funding allocated through the state Nickel and TPA packages. King County has expressed interest in supporting WSDOT’s receipt of capital funding to cover certain SR 520 project elements, such as the pedestrian/bike lane. While an application submitted jointly by WSDOT and local jurisdictions or King County is likely to be favorably received, the amount of interest in these funds by other projects and the competitive nature of funding distribution will make securing the full $200 million designated in the 2007-09 state transportation budget a difficult proposition.

What are the risks associated with obtaining FTA funds for the SR 520 project?

If FTA funds are selected by PSRC and the FTA designated recipients for the SR 520 project, FTA must be a co-lead agency for the environmental process. FTA and FHWA (the current federal lead agency) have different environmental review processes and procedures. FTA was previously a project co-lead agency earlier in the environmental review process and has provided extensive comments from the public transportation perspective. When it appeared that FTA funds would not be used to fund the project, FTA stepped back from the co-lead role. If FTA funds are used moving forward, FTA would need to validate the environmental process to date, continue as a co-lead for the future work, and process FTA grant funding.

Re-engaging FTA as a co-lead agency would likely increase the amount of time required to complete the environmental process, especially if FTA wants to re-address the purpose and need and alternatives analysis. There could be increased cost associated with additional analysis on environmental effects to resources since FHWA and FTA have slightly different methodologies for some resources. Also, we may see a delay associated with obtaining federal lead concurrence on the selected alternative, depending on the alternative that is ultimately proposed.

If we received FTA funds, what would we do to minimize those risks?

Before applying for funding, WSDOT would invite FTA to review the environmental work completed to date to determine whether FTA would need to reopen the purpose and need and alternatives analysis processes for their concurrence. If the purpose and need and alternatives analysis processes were reopened, WSDOT and FTA would jointly develop an estimate of schedule impact.

At this moment, the cumulative effect of FTA involvement in the project on the existing SR 520 NEPA process cannot be determined. If FTA funding is anticipated to be used for the SR 520 Project, coordination with FTA and the FTA designated recipients should begin as soon as possible to minimize any delay that may occur.

Prior to completing the application for FTA funds, WSDOT would assign a member of the project leadership team the responsibility of building and maintaining an
exceptional relationship with FTA. This liaison to the FTA would be responsible for updating FTA personnel on project issues to date and to keep the FTA personnel informed as the project progresses. The liaison would be responsible for ensuring that FTA remained actively involved in project development and for ensuring that FTA concerns are understood and satisfactorily addressed at each step in the development process. FTA would concentrate on the transit elements of the project while FHWA would concentrate on highway pieces except where there is overlap. FTA is also concerned with connectivity, high capacity transit elements, and pedestrian and bike elements.

5. HOW DO TOLLS CONTRIBUTE TO PROJECT FUNDING?

The SR 520 project has been envisioned as a toll project since 2003. Tolls have the ability to contribute a significant share of project funding. Exactly how much tolls contribute depends on myriad operational and financing factors, each with trade-offs that must be weighed against other objectives.

What toll scenarios were analyzed?

Five primary toll scenarios were developed and evaluated for the finance plan analysis to test tolling that would begin in 2018, when the new SR 520 facility is scheduled to open to traffic. Two additional “pre-completion” tolling cases were analyzed to account for the possibility of implementing tolls on the existing bridge before and during construction as early as the third quarter of 2009.5 A range of toll traffic and revenue forecasts from “low” to “high,” with “base” in the middle, was prepared for each scenario to capture uncertainty about the future and associated differences in travel outcomes.

While the toll scenarios vary in several respects, all seven have some common assumptions:

- Tolling would be confined to the SR 520 corridor between I-5 and Interstate-405 (I-405);
- Toll collection would be confined to all electronic methods (no cash collection);
- Tolls would be collected in both travel directions (rates are one-way);

5 This could be done in connection with the Urban Partnership Agreement grant received by WSDOT, King County and the Puget Sound Regional Council which includes implementation of congestion pricing tolls on SR 520.
- Toll rates would vary by time of day and by weekdays/weekends following a set schedule;
- Transit would be exempted from paying tolls; and
- All of the road and transit network improvements proposed in the Roads and Transit ballot measure would be completed no later than 2030. (This assumption yields more conservative toll funding results, and despite the rejection of the ballot measure, it is possible that some other funding could be developed to aid in completing some or all of these projects by 2030.)

In addition, Exhibit 2 presents the menu of key components or “building blocks” that were used to define the toll scenarios for travel demand modeling, revenue projections, and financial analysis.

**Toll Configuration** refers to where the toll is assessed. Two options were considered:

1. A single point of toll collection on the floating bridge so that only cross-lake trips are tolled; and
2. Corridor tolling so that both cross-lake trips and short segment trips on both sides of the lake would be tolled. Corridor tolling was not considered for the pre-completion period, due to the additional capital expense of toll collection equipment this would incur and the relatively small additional revenue that would be generated in doing so.

**Bridge Toll Emphasis** refers to the primary objective served by the variable toll schedule for cross-lake travel. As the toll rate increases, some customers will seek alternative routes, travel modes or even destinations. Up to a point, however, charging a higher toll will increase revenue. Beyond that point, additional toll increases will more severely impact demand, resulting in less revenue. Three options were considered:

1. A lower, “traffic throughput” toll schedule designed to optimize the number of vehicles served in the morning (AM) and afternoon (PM) peak periods;
2. A “balanced traffic and revenue” toll schedule striking a compromise between vehicles served and revenue generated; and
3. A “maximum revenue” toll schedule to determine the highest level of funding that tolls could support.

Weekend tolls were not varied by scenario, as the regional travel model used in the tolling analysis does not support weekend travel demand modeling. Short segment tolls were also not varied by toll scenario. The segment rates that were used for each segmental scenario were set so that they were high enough to cover the cost of collecting the tolls and simultaneously low enough so that unacceptable diversion was avoided.

**Toll Exemptions** refer to which special classifications of vehicles may use SR 520 without paying a toll. As previously noted, public transit vehicles were assumed to travel...
toll-free in all scenarios. One additional option was also considered: allowing HOVs with three or more persons (3+ HOVs) to travel across the lake toll-free by not assessing the toll in the two HOV lanes of the 6-lane configuration. HOVs may be tolled, however, in some circumstances:

1. The finance plan travel demand modeling assumed that HOVs would be tolled in both pre-completion scenarios to assess the revenue potential of the existing facility. Providing a toll exemption to HOVs mixed in with general traffic on the existing facility is possible, but in the absence of a continuous, cross-lake HOV lane in which to segregate HOVs for an electronic toll exemption, operational and technological obstacles would need to be overcome.

2. HOVs making short segment trips will be tolled in scenarios where the general purpose vehicles are also tolled on the short segments. It is not feasible to expect that short-segment HOVs will be able to safely weave across to the left-hand toll-free HOV lanes and then return to the right-hand exit lane in time to exit.

Exhibit 2. Components in Toll Scenario Development

Exhibit 3 identifies the distinctive components of the five primary toll scenarios as well as the two pre-completion scenarios. The scenarios are numbered and presented in descending order of their projected funding potential.

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6 The SR 520 Bridge Replacement and HOV Project DEIS 6-Lane Alternative employs the 3+ HOV definition, and the finance plan analysis assumes that the rest of the network will have converted from the 2+ to the 3+ HOV definition by the year of opening (2018) or shortly thereafter.
### Exhibit 3. Finance Plan Toll Scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Bridge Toll Emphasis (Weekdays)</th>
<th>Toll Configuration</th>
<th>Toll Exemptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCENARIO 1</td>
<td>Maximum Revenue</td>
<td>+ Corridor (Bridge + Short Segments)</td>
<td>+ Transit Only</td>
</tr>
<tr>
<td>SCENARIO 2</td>
<td>Revenue / Traffic Balance</td>
<td>+ Corridor (Bridge + Short Segments)</td>
<td>+ Transit Only</td>
</tr>
<tr>
<td>SCENARIO 3</td>
<td>Maximum Revenue</td>
<td>+ Single Point (Bridge Only)</td>
<td>+ Transit &amp; HOV 3+</td>
</tr>
<tr>
<td>SCENARIO 4</td>
<td>Revenue / Traffic Balance</td>
<td>+ Corridor (Bridge + Short Segments)</td>
<td>+ Transit &amp; HOV 3+</td>
</tr>
<tr>
<td>SCENARIO 5</td>
<td>Traffic Throughput</td>
<td>+ Corridor (Bridge + Short Segments)</td>
<td>+ Transit &amp; HOV 3+</td>
</tr>
</tbody>
</table>

#### Pre-Completion Toll Scenarios from late 2009 until New Bridge Opening

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Bridge Toll Emphasis (Weekdays)</th>
<th>Toll Configuration</th>
<th>Toll Exemptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCENARIO B</td>
<td>Revenue / Traffic Balance</td>
<td>+ Single Point (Bridge Only)</td>
<td>+ Transit Only (No HOV Lane)</td>
</tr>
<tr>
<td>SCENARIO B5</td>
<td>Traffic Throughput</td>
<td>+ Single Point (Bridge Only)</td>
<td>+ Transit Only (No HOV Lane)</td>
</tr>
</tbody>
</table>

### When would tolling begin?

The new SR 520 facility is anticipated to be substantially complete and open for travel by mid-2018 (FY 2019). At that time, revenue operations would begin for the five primary toll scenarios identified in Exhibit 3.

In the case of pre-completion tolling of the existing facility, tolling would commence in the third quarter of 2009 (FY 2010).

### How much are the tolls in the finance plan scenarios?

On SR 520, tolls are assumed to vary by time-of-day according to an established schedule. The bridge toll is relatively higher during peak travel times in all toll scenarios. Weekday toll rates are highest during the morning and afternoon peak commute periods. Weekend toll rates are highest at midday.

Higher peak period tolls help to manage demand and limit congestion by causing some users to change their time of travel, switch to transit or carpooling, alter their route or destination at those times when people want to travel most, or reduce the frequency of recurring trips. Tolls are lower during off-peak times to encourage some users to shift their travel away from times of high demand.
Exhibit 4 presents the weekday and weekend toll rates by time period for each of the toll scenarios for post-completion tolling. Rates are provided for the year of opening in 2018 dollars as well as in constant 2007 dollars. A key assumption is that tolls would increase annually at a projected rate of inflation, assumed to be 2.5 percent per year.

- A typical peak period round-trip commute across Lake Washington would cost from $5.83 (Scenario 5) to $10.29 (Scenarios 1 and 3) in 2007 dollars.

- With a variable toll schedule, the average one-way toll per transaction over the course of a weekday would range from $2.13 (Scenario 5) to $3.12 (Scenarios 1 and 3) in 2007 dollars. While no one traveler would pay this amount, the average one-way toll per transaction serves an approximate fixed toll equivalent to the variable toll schedule, facilitating comparisons to Tacoma Narrows Bridge.

- As shown in Exhibit 4, inflation would make these amounts about 31 percent higher in 2018, the year of opening.
### Exhibit 4. Weekday and Weekend Toll Schedules by Scenario and Bridge Toll Emphasis

#### Weekday & Weekend Toll Schedules

<table>
<thead>
<tr>
<th>Phase: After New Bridge Opens 2018 &gt; (FY 2019 &gt;)</th>
<th>Bridge Toll Emphasis:</th>
<th>Traffic Throughput</th>
<th>Revenue / Traffic Balance Bridge Tolls</th>
<th>Revenue Max Bridge Tolls</th>
<th>Segment Tolls to/from I-5 or I-405*</th>
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<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Scenario 5</td>
<td>Scenarios 2 &amp; 4</td>
<td>Scenarios 1 &amp; 3</td>
<td>Scenarios 1, 2, 4 &amp; 5</td>
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<tr>
<td>12–5 AM</td>
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<td>$0.76</td>
<td>$1.00</td>
<td>$0.76</td>
<td>$1.00</td>
<td>$0.76</td>
</tr>
<tr>
<td>5–6 AM</td>
<td>$2.00</td>
<td>$1.52</td>
<td>$2.00</td>
<td>$1.52</td>
<td>$2.50</td>
<td>$1.91</td>
</tr>
<tr>
<td>6–7 AM</td>
<td>$3.00</td>
<td>$2.29</td>
<td>$3.50</td>
<td>$2.67</td>
<td>$5.00</td>
<td>$3.81</td>
</tr>
<tr>
<td>7–9 AM</td>
<td>$3.40</td>
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<td>$4.00</td>
<td>$3.05</td>
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<tr>
<td>9–10 AM</td>
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<td>$3.50</td>
<td>$2.67</td>
<td>$5.00</td>
<td>$3.81</td>
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<tr>
<td>10 AM–2 PM</td>
<td>$2.75</td>
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<td>2–3 PM</td>
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<td>3–6 PM</td>
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<table>
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<tr>
<td>8–11 AM</td>
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<td>11 AM–6 PM</td>
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<tr>
<td>6–9PM</td>
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<tr>
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<td>$1.00</td>
<td>$0.76</td>
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</tr>
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*Note: Assumes 2.5% per year toll escalation.*

* *Intra-Short Segment Tolls (e.g., between 92nd Ave & Bellevue Way) are 1/2 of the Segment Tolls.*

Exhibit 5 presents the pre-completion weekday and weekend toll rates by time period for the two scenarios in which tolling could begin in third quarter 2009. Rates are shown for the year of implementation in 2009 dollars as well as in constant 2007 dollars. Tolls are also assumed to escalate for inflation by 2.5 percent each year during the pre-completion toll period in the same manner as after the new bridge opens in mid-2018. Pre-completion tolling also assumed that nights from 11:00 PM to 5:00 AM would be toll-free when demand is low and construction closures are most likely.
Exhibit 5. Pre-Completion Weekday and Weekend Toll Schedules by Bridge Toll Emphasis

<table>
<thead>
<tr>
<th>Phase:</th>
<th>Weekday &amp; Weekend Toll Schedules</th>
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<tbody>
<tr>
<td></td>
<td>Pre-Completion Tolling 2009-2018 (FY 2010-18)</td>
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<tr>
<td>Bridge Toll Emphasis:</td>
<td>Traffic Throughput Bridge Tolls</td>
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<td>Application:</td>
<td>Additive to Scenario 5</td>
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<td>Year's $s:</td>
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### Weekdays

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<tr>
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<td>10 AM–2 PM</td>
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<td>$2.20</td>
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<tr>
<td>2–3 PM</td>
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<tr>
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<td>7–9 PM</td>
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<td>Wt. Average</td>
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### Weekends

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<th>Rate</th>
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<tr>
<td>12–5 AM</td>
<td>Toll-Free</td>
<td>Toll Free</td>
<td>Toll-Free</td>
<td>Toll Free</td>
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<td>$0.76</td>
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<tr>
<td>8–11 AM</td>
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<td>$1.14</td>
<td>$1.20</td>
<td>$1.14</td>
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<tr>
<td>11 AM–6 PM</td>
<td>$1.60</td>
<td>$1.52</td>
<td>$1.60</td>
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</tr>
<tr>
<td>6–9 PM</td>
<td>$1.20</td>
<td>$1.14</td>
<td>$1.20</td>
<td>$1.14</td>
</tr>
<tr>
<td>9–11 PM</td>
<td>$0.80</td>
<td>$0.76</td>
<td>$0.80</td>
<td>$0.76</td>
</tr>
<tr>
<td>11 PM–12 AM</td>
<td>Toll-Free</td>
<td>Toll Free</td>
<td>Toll-Free</td>
<td>Toll Free</td>
</tr>
</tbody>
</table>

Note: Assumes 2.5% per year toll escalation.

Using Scenarios 2 and 4 as a representative example, Exhibit 6 graphically presents the variable weekday bridge and short segment toll schedules. The left axis of the chart provides toll rates in year of opening 2018 dollars while the right axis converts these to constant 2007 dollars.

Exhibit 7 presents the corresponding weekend bridge toll schedule that is assumed for all of the primary scenarios (Scenarios 1-5) when the new bridge opens, as well as the short segment tolls that apply to these same scenarios except Scenario 3. Short segment tolls are assumed to be fixed on weekends.
Exhibit 6. Scenarios 2 and 4 Balanced Traffic/Revenue Bridge and Segment Tolls (Weekdays)

Exhibit 7. Scenarios 1-5 Bridge and Short Segment Toll Rates (Weekends)
How does tolling impact travel behavior?

Exhibit 2 earlier in this section illustrates how the scenario components would impact toll revenues, and thus, project funding. For the scenarios analyzed, higher tolls, more extensive corridor tolling, and/or fewer toll exemptions were projected to yield higher funding albeit with fewer vehicles choosing to use SR 520.

Because tolls change the time and monetary costs that travelers face when making a trip, they cause changes in travel behavior. Tolls raise the out-of-pocket cost of travel, but may provide travel time savings and/or improved reliability, particularly during peak periods where lower demand due to tolls is most likely to reduce congestion. The public’s willingness to pay tolls will depend upon several factors, including: how much time is saved on the tolled route relative to other alternatives; how much reliability is improved on the tolled route relative to other alternatives; the purpose and frequency of the trip being made; and the ease of payment.

What are the types of toll diversion?

The changes in travel patterns caused by tolls are often referred to as toll diversion. Implementing tolls can result in several types of diversion:

- Route diversion — a change of route to avoid the toll;
- Mode diversion — a shift in travel mode to transit or carpool to avoid or lower the toll cost;
- Change in time of travel — a shift in travel to a lower cost (lower toll) time of day;
- Change of trip destination — a shift in travel to a new destination that avoids the toll; and
- Change in trip frequency — a reduction in the frequency of a recurring trip, including trip elimination.

What impact does the regional transportation network have on the potential level of toll funding?

The characteristics of the entire network of highways, arterials and transit service can have a significant impact on the toll traffic projections for the SR 520 project. Alternatives to using SR 520 will be more attractive when the capacity and reliability of other roads and transit elements are higher. In other words, diversion away from SR 520 due to a toll will be higher if alternative routes and/or modes involving I-90, I-405 and I-5 are improved.

This finance plan assumes that the road and transit investments proposed in the Roads and Transit package are in place within the areas most impacting cross-lake travel by 2030. Travel demand modeling sensitivity tests were conducted to test what would
happen without these improvements in order to help understand how they would impact SR 520 travel and funding potential.

Relative to the roadway and transit network that exists today (plus currently programmed and fully funded projects), adding the Roads and Transit set of improvements:

- Decreased the overall demand for cross-lake travel in the general purpose travel lanes (–9.4 percent with tolls and –8.5 percent without tolls), with a more pronounced impact on I-90 than for SR 520;
- Increased cross-lake HOV traffic (+48 percent for SR 520 and +94 percent for I-90) due to the improved HOV facilities on I-90 and along the I-405 corridor;
- Increased overall cross-lake transit ridership (+35 percent) due to light rail on I-90, but decreased bus ridership on SR 520 (–63 percent) as reduced transit service there becomes less attractive; and
- Increased the diversion impact of tolls on SR 520 due to lower congestion on I-90 and I-405 making these routes more attractive while at the same time reliable light rail on I-90 makes transit there a more attractive option.

**What impact does tolling have on the regional transportation network?**

At present, there are approximately 113,500 vehicles using SR 520 on a typical weekday, carrying over 150,000 people.

The introduction of tolls on SR 520 and the resulting toll diversion will impact travel behavior and traffic characteristics for other parts of the regional roads and transit network. Some potential SR 520 users will respond to tolls by altering their own travel, including: route shifting to other corridors (e.g., I-90); shifting to other modes such as carpools or transit; shifting the times of travel to less costly periods; or by changing their trip destination or eliminating their trip altogether.

When SR 520 is tolled, general purpose lane traffic is expected to decrease and HOV lane traffic is expected to increase for the reasons described previously. Exhibit 8 presents the projected toll traffic volumes in 2030 for each of the toll scenarios analyzed.
Exhibit 8. Toll Traffic Volumes and Persons Served in 2030 by Toll Scenario

<table>
<thead>
<tr>
<th>Toll Scenario</th>
<th>Vehicles in General Purpose Lanes</th>
<th>Vehicles in 3+ HOV Lanes</th>
<th>Total SR 520 Bridge Vehicles</th>
<th>Total SR 520 Persons Served (Incl. Transit)</th>
<th>Total I-90 Bridge Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1</td>
<td>83,900</td>
<td>10,000</td>
<td>93,900</td>
<td>140,100</td>
<td>190,400</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>107,200</td>
<td>10,500</td>
<td>117,700</td>
<td>169,700</td>
<td>181,300</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>83,100</td>
<td>12,700</td>
<td>95,800</td>
<td>147,600</td>
<td>188,800</td>
</tr>
<tr>
<td>Scenario 4</td>
<td>107,200</td>
<td>12,200</td>
<td>119,400</td>
<td>175,100</td>
<td>180,400</td>
</tr>
<tr>
<td>Scenario 5</td>
<td>109,800</td>
<td>12,100</td>
<td>121,900</td>
<td>177,600</td>
<td>179,400</td>
</tr>
</tbody>
</table>

Note: "High Case" traffic projections for year 2030 are provided for consistency with project modeling procedures.

Exhibit 9 presents the net toll diversion rates for each scenario, relative to a toll-free six-lane facility. These results include both the decrease in general purpose traffic volumes as well as the increase in HOVs if SR 520 is tolled.

Using Scenario 4 as an example, the number of vehicles crossing Lake Washington on SR 520 in 2030 is 21 percent lower when the bridge is tolled. The percentage of travelers that make these changes during the PM peak period, when SR 520 is most heavily congested, is less than the percentage change that would be observed for an entire day. This difference reflects the fact that other cross-lake routes are less attractive alternatives during the peak period due to congestion on those alternate routes. Similarly, diversion rates would be higher during off-peak periods when alternatives are more attractive, despite lower off-peak toll rates.

Exhibit 9. Toll Diversion as a Percentage of Toll-Free Traffic

<table>
<thead>
<tr>
<th>Scenario</th>
<th>520 Net Toll Diversion (%)</th>
<th>I-90 Net Increase (%)</th>
<th>520 Transit Mode Shift (%)</th>
<th>520 HOV3+ Mode Shift (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PM Peak Daily</td>
<td>PM Peak Daily</td>
<td>PM Peak Daily</td>
<td>PM Peak Daily</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>– 28%</td>
<td>– 38%</td>
<td>+ 5%</td>
<td>+ 14%</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>– 13%</td>
<td>– 22%</td>
<td>+ 3%</td>
<td>+ 9%</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>– 26%</td>
<td>– 36%</td>
<td>+ 4%</td>
<td>+ 13%</td>
</tr>
<tr>
<td>Scenario 4</td>
<td>– 12%</td>
<td>– 21%</td>
<td>+ 3%</td>
<td>+ 8%</td>
</tr>
<tr>
<td>Scenario 5</td>
<td>– 10%</td>
<td>– 19%</td>
<td>+ 2%</td>
<td>+ 7%</td>
</tr>
</tbody>
</table>

In the absence of a toll on SR 520, the parallel I-90 bridge is projected to carry 167,100 daily vehicles in 2030. Projected 2030 traffic on a six-lane SR 520 bridge without a toll is estimated at 150,600 vehicles, consisting of 139,400 general purpose...
vehicles and 11,200 high-occupancy vehicles. This level of future daily traffic would result in significant congestion during the increasingly expanded morning and afternoon commute periods.

Because peak periods would be congested, some level of toll diversion would be beneficial to SR 520 travel. Implementing tolls could actually improve throughput during these periods because the variable toll schedule would bring down peak travel demand to be more in line with available capacity.

What level of tolls is “optimal” depends on whether the goal is to move the most vehicles and persons (Scenario 5), maximize the funding provided by tolling (Scenario 1), or some balance in the middle.

What other factors impact the level of toll funding?

Pre-completion Financing Assumptions

Under the Urban Partnership Grant, toll revenues could be collected on the existing bridge before and during the construction phase of the project (2009-18). Revenues would start prior to the major construction expenditures and are best treated as “pay-as-you-go” project funding. This means pre-completion tolls would cover expenses as they are incurred, saving the cost of financing debt. Certain operational and maintenance expenses, including credit card fees and toll collection functions, would be deducted from the gross toll revenues resulting in the net toll revenues that would be available for funding project expenditures. Until the new facility is completed, routine bridge and roadway operation and maintenance expenses are assumed to be covered by the existing maintenance budget and/or capitalized as a cost of construction.

Exhibit 10 illustrates the flow of toll revenues that yield pay-as-you-go funding during the pre-completion period (third quarter 2009 through mid-2018).

A portion of the pre-completion gross toll revenues may need to be pledged to pay for additional transit service under the Lake Washington Congestion Management Program funded by the Urban Partnership Grant. This possibility is indicated by the “Other Non-Project Uses” bucket in Exhibit 10. The total operating cost of the new buses in the program over the nine fiscal years from FY 2010 to 2018 has been initially estimated at $40 million. Until such an agreement with the other project partners has been finalized, pre-completion toll revenues are presented excluding these non-project uses.
**Post-completion Financing Assumptions**

When toll revenues are used to repay bonds, the market typically requires that gross toll revenues be first pledged to cover the toll facility’s operations and maintenance expenses prior to making debt service payments. This ensures that the facility and related assets are well-maintained and able to continue their revenue operations to provide an acceptable level of service to facility users. Providing funding for toll collection, routine bridge and roadway operations and maintenance as well as periodic repairs and rehabilitation also helps to minimize the risk of the facility being closed or other events interrupting the toll revenue stream. Other revenue sources and expenses are added and subtracted, respectively, to determine the net revenues available for debt service.

Exhibit 11 shows this progression from gross toll revenues to the net toll revenues available to repay debt, as anticipated for the SR 520 project. Gross toll revenues from SR 520 would be supplemented by “pay-by-plate” surcharge revenue from users without transponders, and would then be reduced by credit card fees, uncollectible accounts, toll collection operation and maintenance expenses, and facility operation and maintenance expenses. The resulting “Net Revenue Available for Debt Service” would be used to repay the principal and interest on the bonds and would determine the level of borrowing supported.  

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7 The “pay-by-plate” surcharge amount is set to equal the additional cost of video toll collection from those without transponders.
Exhibit 11. Post-Completion "Waterfall" Progression from Gross to Net Toll Revenues

Debt Financing Assumptions

Two financing scenarios were examined by the Office of the State Treasurer, including:

1. 30-year General Obligation / Motor Vehicle Fuel Tax (GO/MVFT) bonds — Bonds repaid from toll revenues but backed by the Motor Vehicle Fuel Tax Fund would be considered by the financial markets to be essentially equivalent to general obligation bonds backed by the full faith and credit of the State of Washington. As a result, the cost of borrowing, issuing, and insuring these bonds would be the same as other state obligations.

2. 40-year Non-Recourse Toll Revenue bonds — Revenue bonds would be backed only by the toll revenue generated by the project, and thus, credit rating agencies consider revenue bonds riskier than their GO/MVFT counterparts. As a result, the coverage requirements and the cost of borrowing, issuing, and insuring these bonds would be greater than those for GO/MVFT bonds. The longer 40-year term helps offset the higher credit cost and coverage requirements of using non-recourse toll revenue bonds.
Exhibit 12 summarizes the bond financing assumptions used by the Office of the State Treasurer to identify the financial capacity of net toll revenues.

**Exhibit 12. Bond Financing Assumptions**

<table>
<thead>
<tr>
<th>Assumption</th>
<th>GO/MVFT (State-Backed) Bonds</th>
<th>Revenue Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term</td>
<td>Long-Term (30-year)</td>
<td>Long-Term (40-year)</td>
</tr>
<tr>
<td>Minimum Debt Service Coverage Ratio*</td>
<td>1.25x: Annual net revenue is at least 125% the annual debt service payments **</td>
<td>1.5x: Annual net revenue is at least 150% of annual debt service payments</td>
</tr>
<tr>
<td>Interest Rates</td>
<td>5.90% Current Interest</td>
<td>6.00% Current Interest</td>
</tr>
<tr>
<td></td>
<td>6.40% Deferred Interest</td>
<td>6.50% Deferred Interest</td>
</tr>
<tr>
<td>Issuance Costs</td>
<td>0.2% of Par Amount</td>
<td>0.4% of Par Amount ***</td>
</tr>
<tr>
<td>Bond Insurance</td>
<td>0.15% of Debt Service</td>
<td>1.00% of Debt Service</td>
</tr>
<tr>
<td>Underwriter Discount - Current Interest Bonds</td>
<td>0.50% of Par Amount</td>
<td>0.70% of Par Amount</td>
</tr>
<tr>
<td>Underwriter Discount - Deferred Interest Bonds</td>
<td>1.00% of Par Amount</td>
<td>1.20% of Par Amount</td>
</tr>
<tr>
<td>Minimum Fund Balance</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Reserves</td>
<td>None</td>
<td>Debt Service Reserve Fund (Surety)</td>
</tr>
</tbody>
</table>

* The Debt Service Coverage Ratio is the factor of net revenue available for repaying debt divided by the debt service principal and interest payments. The excess revenue provided by debt service coverage can be made available for other purposes, such as renovation and rehabilitation expenses, subordinated debt and/or other project or non-project uses.

** Assumed, but may not be necessary for debt backed by the State of Washington.

*** Includes the cost of a debt service reserve account surety policy.

The Office of the State Treasurer used the net toll revenue stream for each toll scenario and financing case to identify the maximum construction amounts that could be leveraged with bonds, subject to the above financing conditions, and assumed the bond proceeds would follow the distribution of project expenditures indicated in Exhibit 13.

**Exhibit 13. Anticipated Schedule of Bond Proceeds**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
<th>FY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure Distribution for Bond Proceeds</td>
<td>6.5%</td>
<td>16.3%</td>
<td>26.7%</td>
<td>27.1%</td>
<td>23.4%</td>
</tr>
</tbody>
</table>

The funding contribution of net toll revenues was optimized by “sculpting” the debt repayment schedule, using combinations of current interest bonds and deferred interest bonds, so that the payments increase over time in line with rising toll.
revenues. This allows the state to borrow the largest amount possible while maintaining the desired debt service coverage level throughout the life of the debt repayment schedule.

**How much project funding can be raised by the toll scenarios?**

The results from the financial capacity analysis conducted by the Office of the State Treasurer are presented below as ranges for each toll scenario, depending on the traffic/revenue case, financing scenario, and when tolls begin.

Exhibit 14 presents the funding that could be contributed by tolls beginning in mid-2018 when the new bridge and approaches are open to traffic. The highlighted column focuses on the funding contribution that would be available from the sale of 30 year state-backed bonds under the base projection for traffic and revenue. The base projection lies between the low and high points of the traffic and revenue forecast range produced for each scenario.

**Exhibit 14. Toll Funding Potential with Tolls Beginning Mid-2018 ($ Billions)**

<table>
<thead>
<tr>
<th>Implementation Timing</th>
<th>Tolling Begins Pre-Completion (Third Quarter 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Projection</td>
</tr>
<tr>
<td>Revenue Case</td>
<td>30 Year State-Backed Debt</td>
</tr>
<tr>
<td>Scenario 1 (Rev Max/Corridor/HOVs tolled)</td>
<td>$1.72 B</td>
</tr>
<tr>
<td>Scenario 2 (Balanced/Corridor/HOVs tolled)</td>
<td>$1.57 B</td>
</tr>
<tr>
<td>Scenario 3 (Rev Max/Bridge Only/HOVs free)</td>
<td>$1.55 B</td>
</tr>
<tr>
<td>Scenario 4 (Balanced/Corridor/HOVs free)</td>
<td>$1.50 B</td>
</tr>
<tr>
<td>Scenario 5 (Throughput/Corridor/HOVs free)</td>
<td>$1.39 B</td>
</tr>
</tbody>
</table>

With financing provided by 30 year state-backed bonds, toll funding under the base traffic and revenue projections varies from $1.04 billion with modest tolls designed to optimize traffic throughput (Scenario 5) to $1.35 billion at the revenue maximizing tolls (Scenario 1). Future traffic levels would have to achieve their highest expectations and/or financial coverage assumptions would need to be reduced in order to reach the maximum toll funding level of $1.52 billion.

Exhibit 15 shows the higher funding amounts that would result by adding pre-completion tolling to the existing bridge, beginning in third quarter 2009 (FY 2010).
A single pre-completion tolling case (Scenario B) was added to Scenarios 1 through 4. This implementation of tolls in 2009 is projected to yield upwards of an additional $570 million in pay-as-you-go project funding under the base projection traffic and revenue case. Scenario 5, with slightly lower peak period toll rates, is projected to generate about $530 million in additional funding for the base projection.

Exhibit 15. Toll Funding Potential with Pre-Completion Tolls Beginning in 2009 ($ Billions)

<table>
<thead>
<tr>
<th>Implementation Timing</th>
<th>Tolling Begins Post Completion (July 1, 2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Projection</td>
</tr>
<tr>
<td>Revenue Case</td>
<td>30 Year State-Backed Debt</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>$1.20 B</td>
</tr>
<tr>
<td>(Rev Max/Corridor/HOVs tolled)</td>
<td></td>
</tr>
<tr>
<td>Scenario 2</td>
<td>$1.06 B</td>
</tr>
<tr>
<td>(Balanced/Corridor/HOVs tolled)</td>
<td></td>
</tr>
<tr>
<td>Scenario 3</td>
<td>$1.04 B</td>
</tr>
<tr>
<td>(Rev Max/Bridge Only/HOVs free)</td>
<td></td>
</tr>
<tr>
<td>Scenario 4</td>
<td>$0.99 B</td>
</tr>
<tr>
<td>(Balanced/Corridor/HOVs free)</td>
<td></td>
</tr>
<tr>
<td>Scenario 5</td>
<td>$0.92 B</td>
</tr>
<tr>
<td>(Throughput/Corridor/HOVs free)</td>
<td></td>
</tr>
</tbody>
</table>

These amounts assume that all net toll revenues (after toll collection operations and maintenance costs) are available for pay-as-you-go project capital expenditures. There are at least two circumstances in which the pre-completion toll funding would be less:

- Pre-completion funding would be about $40 million less if toll revenues were pledged to cover the additional transit service operations resulting from the buses proposed for purchase with funding from the Urban Partnership Grant; and

- Pre-completion funding would be less if a toll exemption were given to 2+ HOVs or some subset of HOV traffic such as registered carpools.

The overall range of funding across the three traffic/revenue cases and the two financing scenarios is shown in Exhibit 16 for both tolling start dates.
Pre-completion tolling would provide an opportunity to establish a toll collection track-record in the SR 520 corridor. This would help to establish a baseline for the investment grade traffic and revenue forecasts that would typically occur prior to issuing debt, and would likely improve the credit rating or lower the cost of credit to the project if non-recourse toll revenue bonds are used in its financing.

6. WHAT IS THE FUNDING GAP?

Project needs, sources of funding and options for closing the gap

Earlier sections have described the project needs, the identified funding and the potential contribution of tolls. Exhibit 17 summarizes the funding as identified in the governor’s 2008 supplemental budget to define the current funding gap. The range of funding from tolls are presented as options that could help close the gap.
Exhibit 17. Summary of Project Funding Needs and Funding Sources

<table>
<thead>
<tr>
<th>TARGET PROJECT NEED</th>
<th>Millions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 Project Cost Estimate 1</td>
<td>$4,380 M</td>
</tr>
<tr>
<td>Less: Savings from Design Change &amp; Early Construction of Pontoons 2</td>
<td>($400 M)</td>
</tr>
<tr>
<td>2007 Project Cost Estimate</td>
<td>$3,980 M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOURCES OF FUNDS (based on the Governor's 2008 Supplemental Budget)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State Gas Tax (Nickel &amp; TPA Packages, &amp; Other State)</td>
<td>$554 M</td>
</tr>
<tr>
<td>Allocation from WSDOT &quot;Risk Pool&quot; 3</td>
<td>$1,072 M</td>
</tr>
<tr>
<td>Previously Committed Federal Bridge Funds</td>
<td>$114 M</td>
</tr>
<tr>
<td>State Sales Tax Deferral or Transfer (similar to TNB) 4</td>
<td>$180 M</td>
</tr>
<tr>
<td>Subtotal State/Federal Contribution</td>
<td>$1,920 M</td>
</tr>
<tr>
<td>Shortfall / Funding Gap</td>
<td>$2,060 M</td>
</tr>
<tr>
<td><strong>Funding from Tolls</strong></td>
<td></td>
</tr>
<tr>
<td>SR 520 Tolls (beginning at completion in mid-2018) 5</td>
<td>$850 M to $1,520 M</td>
</tr>
<tr>
<td>Pre-Completion Tolling (toll existing bridge mid-2009 to mid-2018) 6</td>
<td>$480 M to $570 M</td>
</tr>
<tr>
<td>Tolling I-90</td>
<td>To Be Determined</td>
</tr>
</tbody>
</table>

Note: The information in this table does not account for gaps caused by potential mis-matched timing in which project needs occur prior to funding availability.

1 2006 estimate of probable costs for the 6-Lane Alternative with the Pacific Interchange option as reviewed by the Expert Review Panel.
2 The magnitude of cost savings depends both on design changes and on advancing certain construction activities to avoid the impacts of inflation; full savings requires early pontoon construction to be advanced to the 2009-11 and 2011-13 biennia.
3 The Governor's 2008 Supplemental Budget proposes full allocation of the risk pool to the SR 520 Project. The risk pool is funded from $800 million in future federal bridge funding and $272 million in future federal Surface Transportation Program (STP) funds.
4 Statutory amendments would be required. A state sales tax deferral would be repaid with future toll revenues.
5 Legislation ESSB 6099 suggested tolls on SR 520. The range of funding generated by tolls is influenced by a number of factors underlying the toll scenarios tested. Toll rates vary by scenario from $5.83 to $10.29 in 2007 dollars for a peak commute period round-trip (7-9 AM and 3-6 PM). All scenarios employ variable toll schedules that provide lower tolls at off-peak times.
6 Assumes all pre-completion net toll revenue would be available for project needs. Pre-completion toll scenarios tested toll rates from $5.83 to $6.86 in 2007 dollars for a peak commute period round-trip. Pre-completion tolling would require legislative approval. The Urban Partnership Grant provides funding for tolling infrastructure.

Tolling revenue projections are shown as ranges due to present uncertainty in their amounts or policy decisions that have not yet been made. While tolling SR 520 upon completion of the project could potentially yield up to $1.5 billion, reaching this
amount requires charging relatively high toll rates, achieving an optimistic traffic forecast and issuing debt under favorable financing conditions. Similarly, receipt of FTA funding would likely extend the environmental process schedule, and the inflationary cost of project delay would reduce the net benefit of this potential funding source. We anticipate receiving additional direction on these funding options in 2008 as we refine the project finance plan.

Matching annual sources and uses of funds

Exhibit 18 on the next page shows the alignment between the project’s expenditures and an illustrative view of the funding over time. This illustrative funding scenario includes the governor’s 2008 supplemental budget funding identified in Exhibit 17, potential FTA/FHWA funding, and Scenario 4 toll funding levels under the base case traffic and revenue projection combined with pre-completion tolling and the use of 30 year state-backed bonds.

The stacked bars show the categories and magnitudes of funding by color in each year. Project expenditures over time are indicated by the solid and dotted black lines, where the solid line represents the 2006 project cost schedule and the dotted line represents the revised 2007 cost schedule that reflects the alternative pontoon design combined with early pontoon construction.

Exhibit 18 emphasizes that closing the funding gap requires not only balancing the magnitude of funding sources with project uses, but also their timing. The entire funding gap consists of a series of annual gaps, each of which must be balanced. Even if sufficient overall project funding were identified, gaps might still exist in the balance of sources and uses on an annual basis.

The challenges involved in moving project funding sources back or forward in time vary by source. For example, the WSDOT Risk Pool funding relies on future federal funding, some of which is received after the project is substantially complete. Moving this funding to an earlier point in time may require borrowing against future federal disbursements. However, the interest costs of borrowing would lower the amount of funding that could be made available earlier in time.
How do the toll scenario options impact funding levels?

Each of the components of toll policy and tolling objectives shown in Exhibit 3 has an impact on the amount of revenue that can be generated from tolls. The illustrative funding scenario shown in Exhibit 18 would yield $1.12 billion from bonding the net toll revenues collected after the project is completed under Scenario 4. Exhibit 19 shows how changing some of the toll policy choices would impact the overall project funding provided by tolls, using Scenario 4 as a basis of comparison.
Exhibit 19. Impacts of Varying Toll Assumptions on Scenario 4 Funding Levels

For example, if optimizing traffic throughput were more important than balancing traffic and revenue goals, there would be a 7 percent reduction in the level of toll funding. Alternatively, changing the tolling emphasis to maximize revenue would result in a 13 percent increase in project funding.

Similar changes in project funding can be observed by altering other components as shown in Exhibit 19. For example, eliminating the short segment tolls so that only cross-lake travel was tolled would cut revenue by 7 percent. Separately, eliminating toll exemptions for HOV users would increase revenue by 7 percent.

The most significant component is the pre-completion tolling option. Tolling the new facility raises $1.12 billion in funding. Tolling pre-completion adds roughly 50 percent to the funding potential of Scenario 4.
Summary

To summarize, there are several key findings described in the finance plan:

- **A funding gap exists.** There is still a gap between the amount of identified funding and actual project costs. The challenge lies not just in filling the gap, but in matching project needs and schedule with timing of available funds.

- **Tolling SR 520 could contribute substantial project funding.** Tolling SR 520 after the new bridge is open to drivers in 2018 could generate between $850 million and $1.5 billion for project funding purposes. Policy makers would need to adopt a toll strategy that balances the number of vehicles traveling in the corridor with the amount of revenue generated from tolls.

- **Pre-completion tolling jump-starts project funding.** Tolling SR 520 from late 2009 until the new bridge opens to drivers in 2018 could generate an additional $480 to $570 million.

- **Design changes and early pontoon construction could save $400 million.** The current project cost estimate is $4.38 billion for the 6-Lane Alternative with the Pacific Interchange option. With cost savings, including design changes and early pontoon construction, the project is estimated to cost $3.98 billion.

Next Steps

As outlined on page 4 of this plan, there are several policy decisions that will need to be made regarding toll rates, toll locations in the SR 520 corridor, and whether tolling on I-90 should be included as part of the SR 520 revenue package. As part of these policy discussions, additional tolling and traffic analysis will need to be completed for I-90.
Lake Washington Urban Partnership

Partnership Agreement

The Lake Washington Urban Partnership is a cooperative agreement to employ innovative transportation strategies that will improve traffic flow along SR 520 and I-90 between Seattle and the Eastside. A new variable tolling system could contribute up to $500 million to replace the aging SR 520 Lake Washington floating bridge.

The Urban Partnership, an agreement between the federal government, WSDOT, King County and the Puget Sound Regional Council, has four key elements:

- **Tolling**
- **Technology and Traffic Management**
- **Transit**
- **Telecommuting**

What it means for Washington

- King County would receive up to $41 million to purchase 45 new buses for the SR 520 corridor and make other transit improvements.
- About $86 million would go toward developing and implementing active traffic management and traveler information systems and to support tolling operations on the SR 520 Bridge, pending future legislative decisions.
- The region could receive up to $11.6 million for improving state and King County ferry service.

SR 520 corridor right for partnership

State Route 520 is a major artery connecting I-5 to I-405 and Seattle to the region's core for hi-tech industry. The corridor is typically heavily congested during peak travel times, and traffic-flow improvements are vital to address ever-increasing demands.
The SR 520 Bridge (both Evergreen Point and Portage Bay bridges) have withstood numerous winter windstorms and small earthquakes since they were constructed in the early 1960s. Carrying 110,000 vehicles each day, almost double the capacity they were designed for, the bridge is worn and nearing the end of their lifespans. It must be replaced.

Both the existing bridge and the new bridge could be tolled to pay for its construction. Tolling also could be used to manage congestion. New technology will assist drivers and support the bridge replacement program. Telecommuting strategies could help manage traffic demand.

**Did you know?**

- The Evergreen Point Floating Bridge was tolled from the time it was completed in August 1963 until it was paid off in June 1979. Tolls generated about $60 million.
- Approximately 155,000 to 160,000 people cross the SR 520 floating bridge each day.
- The replacement bridges will be designed to withstand major earthquakes and windstorms up to 92 mph

**Tolling**

The Washington State Legislature directed WSDOT to establish tolling as a means to help pay for construction and operation of a new bridge. The goal of the Urban Partnership is to use new technology to ease traffic congestion, better serve commuters and make bridges and highways more efficient.

Electronic tolling eliminates the need for toll booths, providing commuters with a faster, more reliable trip. The technology also allows toll prices to vary by time of day and traffic levels. The system manages demand and smooths traffic flow so more people can move through the corridor faster and safer. The Urban Partnership provides resources, a forum and incentive to begin a tolling program on SR 520.

**Technology**

Highway travel as we know it is undergoing a technological revolution. Innovations, such as variable tolling, will allow the SR 520 corridor and eventually a new bridge will provide commuters with a more reliable trip, even as population increases in Seattle and on the Eastside.

Improved technologies that soon will help get us to work on time include:

- Modern electronic tolling systems that combine customer convenience with effective enforcement and help pay for efficient bridges and highways
- Real-time driver information displayed electronically over each lane to better...
manage the system and improve safety, reliability and traffic flow

- State-of-the-art information systems linking commuters to multiple transportation modes

Transit

The Urban Partnership will expand transit service along the 520 corridor to reduce auto trips and provide toll-free travel options. Variable tolling will assure transit and vanpool speed and reliability across the Lake. King County Metro’s RapidRide bus rapid transit (BRT) program will reduce car dependency and increase the capacity and quality of transit. Improved rider information and SmartCard payment will make transit services more convenient and help increase capacity in the SR 520 corridor.

Two dozen bus routes in the SR 520 corridor carry 13,400 riders per day and 4,500 riders during the busiest morning hours. These buses carry 18 percent of all morning commuters to Seattle.

The partnership’s goal for transit is to increase ridership on SR 520 by 15-35 percent and provide sufficient transit service capacity to accommodate commuters who choose to switch to transit when tolls are implemented. To further enhance transit services in the SR 520 corridor, WSDOT and its partners will seek additional funding through state and federal programs, grants and other revenue sources.

Telecommuting

The foundations of telecommuting are in place. As much as 80 percent of households in neighborhoods around this high-tech corridor have high-speed Internet access, an often necessary tool for telecommuting. More than 1,100 work sites participate in WSDOT’s Commute Trip Reduction program. The Urban Partnership invests in telecommuting by working with employers to encourage flexible employment arrangements that improve worker productivity and reduce rush-hour traffic demands.

If all the participants in the CTR program returned to driving alone to work, peak-hour traffic delays in central Puget Sound would increase nearly 19 percent each weekday morning. CTR reduces traffic by 19,200 vehicle trips each weekday morning in the central Puget Sound.

What is an Urban Partnership?

The Lake Washington Urban Partnership could provide significant federal funding to implement an variable tolling in SR 520 corridor as early as 2009. Tolls could raise up to $500 million to help pay for a new SR 520 floating bridge. Funding decisions are pending in the state Legislature and the Federal Highway Administration with more information expected this spring.

The Urban Partnership Agreement is a major component of the United States Department of Transportation’s national strategy to reduce congestion. USDOT sought to form urban partnerships with state agencies by leveraging three grant programs that could amount to several hundred million dollars:

- Intelligent transportation systems operational testing to mitigate congestion (ITS-OTMC)
- The Value Pricing Pilot program (VPP)
- FTA’s Section 5309 discretionary grant program to support urban partnerships
The Lake Washington Urban Partnership demonstrated to USDOT that it plans to implement innovative congestion management strategies in the next two to three years that:

- Include variable tolling elements on an existing facility or facilities
- Demonstrate measurable congestion reduction
- Include technology, transit and telecommuting as complementary strategies to the pricing element

In addition to the Lake Washington partnership, the USDOT in August awarded Urban Partnership Agreements to:

- **Miami**: $63 million to convert HOV lanes to high occupancy toll (HOT) lanes on I-95 from Fort Lauderdale to downtown Miami.
- **Minneapolis**: $133.3 million to convert HOV lanes to HOT lanes and extend existing HOT lanes
- **New York City**: $354 million for a Manhattan tolling program and transit and ferry improvements
- **San Francisco**: $159 million for a variable pricing system on roadways accessing the Golden Gate Bridge

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