SR 520

Urban Partnership Program

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Joint Transportation Committee Workshop
June 2, 2009

Washington State
Department of Transportation
Lake Washington Urban Partnership

Designed to reduce congestion through the “Four T’s”:

- Transit
- Technology
- Telecommuting
- Tolling

Awarded $154.5 million to assist WSDOT, Puget Sound Regional Council and King County in applying these innovative approaches to reduce congestion in the 520 corridor in Western Washington.

Funded by:

U.S. Department of Transportation
Federal Highway Administration
## Lake Washington Urban Partnership funding

*by funding element*

<table>
<thead>
<tr>
<th>Funding Element</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit (new buses and park &amp; rides)</td>
<td>$41 million</td>
</tr>
<tr>
<td>Technology (active traffic management systems)</td>
<td>$23.1 million</td>
</tr>
<tr>
<td>Telecommuting (builds on existing TDM programs)</td>
<td>$0</td>
</tr>
<tr>
<td>Tolling (variable tolling of existing bridge)</td>
<td>$63 million</td>
</tr>
<tr>
<td>Ferry Projects (throughout the Puget Sound)</td>
<td>$27.4 million</td>
</tr>
<tr>
<td><strong>Total Funding</strong></td>
<td><strong>$154.5 million</strong></td>
</tr>
</tbody>
</table>
Adding transit to offer options

*UPA will encourage more commuters to use transit alternatives*

Urban Partnership Agreement monies will be used to:

- purchase 45 additional buses for the 520 corridor (utilizing 38,000 more service hours in the corridor);
- make improvements to Park and Rides (Redmond and South Kirkland);
- enhance passenger facilities (new shelters and lighting);
- install Real Time Information signs at bus stops
Technology to build smarter roadways

*UPA will provide high-tech tools to improve the commute*

Expand intelligent transportation system, to include:

- **Overhead variable speed limit signs** – improves safety by alerting drivers of backups down the road.

- **Variable lane control** - alerts drivers to steer away from trouble spots and clear the way for emergency vehicle access.

- **Travel time signs**
  
  Allow drivers to make trip decisions.

<table>
<thead>
<tr>
<th>Seattle TRAVEL TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIA 520</td>
</tr>
<tr>
<td>VIA 90</td>
</tr>
</tbody>
</table>
Telecommuting to reduce trips

UPA will encourage businesses to promote telecommuting, flex-time, and carpooling

The Urban Partnership builds on existing commute trip reduction programs and encourages:

• telecommuting and flexible schedules
• educational campaigns
• employer subsidies
• car/vanpooling
Variable tolling of existing bridge

UPA will lead some drivers to change their travel times, modes of transportation, routes, or destinations

What is being proposed for the UPA?

• existing highway would be tolled
• all electronic tolling - no toll booths
• variable toll - lower price in non-peak periods
• revenue to be invested in SR 520 corridor for bridge replacement

Integrated with existing infrastructure to the extent possible
Lake Washington Urban Partnership funding
Status of Fund Authorization

<table>
<thead>
<tr>
<th>Cost</th>
<th>Work Program</th>
<th>Funds in Hand</th>
<th>Requested To Be Released With Tolling Authorization</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolling and ATM Design</td>
<td>$8,030,000</td>
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<tr>
<td></td>
<td>WSDOT Remaining Funds</td>
<td></td>
<td>$78,070,000</td>
<td>$86,100,000</td>
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<td></td>
<td>Transit/P&amp;R</td>
<td>$2,163,650</td>
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<tr>
<td></td>
<td>King County Remaining Funds</td>
<td></td>
<td>$38,836,350</td>
<td>$41,000,000</td>
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<tr>
<td></td>
<td>Ferry Projects</td>
<td>$7,900,000</td>
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<tr>
<td></td>
<td>Ferry Remaining Funds</td>
<td></td>
<td>$19,400,000</td>
<td>$27,300,000</td>
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<tr>
<td></td>
<td>Total Funding Need</td>
<td>$18,093,650</td>
<td>$136,306,350</td>
<td>$154,400,000</td>
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</tbody>
</table>
Legislature appointed a 520 Tolling Implementation Committee to engage the public on such issues as:

- Tolling the existing 520 bridge
- Tolling both I-90 and 520
- Providing incentives for transit and carpooling
- Implementing variable tolling as a way to reduce congestion
- Recommending mitigation measures for traffic diversion from 520 to other routes, including SR 522

The Committee’s final report went to the governor and legislature in January 2009. Visit build520.org for details.
## 520 tolling scenarios evaluated

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Tolling Scenarios</th>
<th>520-Only</th>
<th>Two-Bridge (520 &amp; I-90)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Toll 520 in 2016, when project is complete</td>
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<td>2</td>
<td>Toll 520 in 2010, when construction begins</td>
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<td></td>
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<tr>
<td>3</td>
<td>Toll both bridges in 2016</td>
<td></td>
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<tr>
<td>4</td>
<td>Toll 520 in 2010 and 90 in 2016</td>
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<td></td>
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<tr>
<td>5</td>
<td>Flat rate toll on 520 (in 2016)</td>
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<td>6</td>
<td>Maximize funding by tolling only 520</td>
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<tr>
<td>7</td>
<td>Toll 520 in 2010; increase rate in 2016</td>
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<tr>
<td>8</td>
<td>Toll 520 at a higher rate than 90 in 2016</td>
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<tr>
<td>9</td>
<td>Toll both bridges in 2010</td>
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<td></td>
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</tr>
<tr>
<td>10</td>
<td>Full bridge toll on 520; HOT lanes on I-90</td>
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</tbody>
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Toll ranges for 520-only scenarios (2007$)

Notes:
- All toll rates are one-way
- All tolls are 2007$
- 2010 scenarios do not charge an overnight toll.
Bridge funding raised from toll scenarios

$1.5 – $2 Billion 2008 Legislative Funding Target

- Scenario 1: $835 M
- Scenario 2: $853 M
- Scenario 5: $522 M
- Scenario 6: $1,520 M
- Scenario 7: $1,189 M
- Scenario 3: $2,229 M
- Scenario 4: $2,457 M
- Scenario 8: $2,170 M
- Scenario 9: $2,428 M
- Scenario 10: $1,774 M
When tolls are in place, speeds improve

Examples: 520 bridge speed ranges in 2010; speeds with tolls, compared to roadway speed without tolls
Some people make different choices – take transit, shift time of day or change destination

Total Diversion under Scenario 6: Maximize funding by tolling only 520. 82% of person volume stay on 520 based on 2010 baseline 520 volume.
Route diversion – people may change their travel routes, but net effect is distributed across the system

Examples of traffic diversion when tolling 520
(2010, Scenario 7: Toll 520 in 2010, increase rate in 2016)

- Minus 17% to 26% on 520
- Plus 1% on 522
- Plus 1% to 3% on I-405
- Plus 3% to 7% on I-90
Public engagement

• 16,000 build520.org Website visitors
• 7,800 web survey participants
• 1,200 phone survey respondents
• 8,000 written comments
• 700 open house attendees
• 1,000+ Sierra Club postcards
• 3,300+ No Toll on I-90 petition signatures
Random-sample phone survey found:

- Three-fifths supported tolling 520 to help fund bridge replacement
- Electronic tolling increased support
- Variable rate tolling increased support
- Most supported early tolling when they considered its beneficial effect on toll rates and financing costs
- Most supported early tolling when they considered its beneficial effect on travel speeds
- Majority support for tolling I-90 in addition to 520, but strong opposition from I-90 users