

## CHAPTER 2 NEED FOR THE PROJECT

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The SR 520, Medina to SR 202: Eastside Transit and HOV Project is one of four projects included in the SR 520 Corridor Program. Its purpose is to enhance travel time reliability, mobility, access, and safety for transit and carpools in the rapidly growing areas along the SR 520 corridor east of Lake Washington.

### ***Why do we need the project?***

The project is needed to provide transit capacity and mobility improvements along the SR 520 corridor. Much of the need for this project is in response to population growth and the dramatic increase in economic growth on the Eastside. Transit use on the Eastside has increased by 30 percent over the past 8 years. The population of the Eastside communities is expected to grow as a whole by over 77,000 between 2000 and 2030, an average annual increase of approximately 1.0 percent (PSRC 2006). Employment in Kirkland, Bellevue, and Redmond is on an even faster growth curve, with a 57-percent increase in jobs projected between 2000 and 2030 (PSRC 2006).

This growth is expected to substantially increase transit demand and has spurred plans for transit service enhancements; however, the existing SR 520 Eastside infrastructure is inadequate to support existing or future demand for transit (PSRC 2008). Transit agency planning is relying on SR 520 as a critical corridor to link east–west and north–south trips in the Central Puget Sound area. Planned service improvements require the Eastside to have a continuous HOV system that meets current design standards and supports reliable travel times for transit and HOVs.

### ***What led WSDOT to propose the project?***

Improvements to SR 520 have been under consideration since 1997, when the Washington State Transportation Commission initiated the Trans-Lake Washington Study. In 2001, based on the Trans-Lake recommendations, a Notice of Intent was issued to prepare an environmental impact statement for the SR 520 Bridge Replacement and HOV Project, which covered the full length of SR 520 from I-5 in Seattle to SR 202 in

#### **Purpose:**

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Redmond. In 2003, the SR 520 Executive Committee changed the eastern project limit to 108th Avenue NE as a result of funding limitations.

In 2006, WSDOT published a draft environmental impact statement that evaluated No Build, 4-Lane, and 6-Lane alternatives for SR 520, as well as a number of design options to the 6-Lane Alternative. Based on findings in the draft, Governor Gregoire identified the 6-Lane Alternative (also known as the “4+2” alternative) as the State’s preference for moving forward. In March 2008, Governor Gregoire highlighted the importance of the SR 520 project to the region and state by announcing an accelerated project schedule.

Much has changed since 1997 when SR 520 improvement studies began. The initial purpose of the Trans-Lake Washington Project was to “improve mobility across and around Lake Washington.” Today, the SR 520 corridor faces a larger set of challenges and opportunities:

- The need to prepare for potential catastrophic failure of the Evergreen Point Bridge in a windstorm – a need that becomes more urgent with each passing storm season.
- The need to respond to dramatic growth in jobs and housing on the Eastside, and to respond to the demand for transit service that has accompanied this growth.
- The need to evaluate a new set of community-based design options that have arisen from the Westside mediation process.
- The opportunity to partner with King County and the Puget Sound Regional Council (PSRC) to manage congestion on SR 520 in the near term through innovative use of transit, telecommuting, technology, and tolls.

To respond to this new set of challenges and opportunities, WSDOT has identified four distinct projects under a new SR 520 program. Each of these projects on its own provides substantial independent benefits to users of SR 520. The program approach provides WSDOT with an efficient way to plan and construct each project independently, but in a coordinated manner.

The project described in this EA is referred to in this document as the Build Alternative. See Chapter 4 for a detailed description of the Build Alternative.

### ***How did WSDOT identify the improvements included in the project?***

This proposed project will complete the eastbound HOV system from Evergreen Point Road (near the Lake Washington shoreline) to the interchange with SR 202 (at the east end of SR 520), a distance of approximately 8.8 miles.

Soon after the project was accelerated to address priorities on the east side of Lake Washington, a design process was undertaken to evaluate four design options to address the need for the project.

The four options that were evaluated included the following:

1. Moving the existing HOV lanes to the inside from Evergreen Point Road to 108th Avenue NE.
2. Moving the HOV lanes to the inside from Evergreen Point Road to SR 202.
3. Implementing an inside HOV lane from Evergreen Point Road to 108th Avenue NE, then switching to outside HOV lanes from 108th Avenue NE to SR 202.
4. Managing ramps, or using ramp meters and traffic lights to improve traffic flow.

Option 2; the concept of moving the HOV lanes to the inside from Evergreen Point Road to SR 202, along with extending the existing eastbound HOV lanes from the 108th Avenue NE west to Evergreen Point Road and interchange improvements, was chosen as the preferred design to move forward.

The project will be designed with these priorities in mind to meet the need for the project:

- Improving transit, carpool, and HOV travel times.
- Enhancing travel time reliability, mobility, and access for transit and HOVs.
- Supporting transit demand and planned service improvements.
- Improving traffic safety in the SR 520 corridor.

- Improving transit reliability and safety along the SR 520 corridor by shifting the HOV lanes to the inside of the freeway and providing direct access to these lanes at key interchanges.

### ***What is the SR 520 Bridge Replacement and HOV Program and how is it related to this project?***

WSDOT proposes to construct this project as one of four related, but independent projects under the SR 520 Bridge Replacement and HOV Program. Each project will undergo independent environmental review. Once completed, the SR 520, Medina to SR 202: Eastside Transit and HOV Project will be compatible with the three other projects planned for the SR 520 Bridge Replacement and HOV Program:

- I-5 to Medina: Bridge Replacement and HOV Project. This project involves replacement of the Evergreen Point Bridge and improvements to the Westside portion of the corridor and approaches on both sides of Lake Washington.
- Pontoon Construction Project. This project includes construction and storage of the pontoons that will be used in the event of a catastrophic failure of the existing Evergreen Point Bridge.
- SR 520 Variable Tolling Project. This project addresses implementation of electronic tolling and technology to manage congestion along the SR 520 corridor.

The proposed improvements to the Eastside portion of SR 520 will not preclude any other reasonably foreseeable improvements under consideration for other portions of SR 520 or connecting transportation facilities.

### ***What alternatives are evaluated in the EA?***

This EA compares two alternatives: the Build Alternative and the No Build Alternative. A detailed description of the alternatives is provided in Chapter 4. Effects of the alternatives are discussed in Chapter 5.

### ***What will happen if the project is not built?***

If the project is not built, transit and HOV travel times will not improve and would get worse by the year 2030, because new infrastructure will not be in place to support planned service improvements, etc. This means that morning and evening commutes will become slower for even longer portions of the day, and transit reliability will continue to get worse. This is referred to in this EA as the No Build Alternative. See Chapter 4 for a detailed description of the No Build Alternative.

Other project benefits will not occur if the project is not built. These other benefits include removing fish passage barriers, enhancing streams, improving trails, constructing noise walls, and providing lids at key locations to reconnect the communities separated by SR 520 when the highway was originally constructed in the 1960s.

### ***How did environmental issues influence the project design?***

WSDOT actively pursues ways to protect and preserve important natural resources and the integrity of neighborhoods. WSDOT intends to avoid or minimize potential negative effects of the project by incorporating specific design features. For example, in response to the project team's evaluation of environmental topics, design features were changed to avoid or minimize effects to wetlands, streams, water resources, visual quality, trails, easements, and acquisitions, where practicable.

### ***What other improvements are underway or will be complete by the time this project is complete?***

For the purpose of establishing a baseline condition for which the Build Alternative and No Build Alternative can be analyzed, WSDOT assumes that projects that are funded for construction, or that have all permits ready for construction, will be built and open to traffic before this project is complete. For the purposes of this EA, WSDOT assumes that the I-405 Improvement Program, NE 8th Street to SR 520 Project, is built.

SR 520, MEDINA TO SR 202: EASTSIDE TRANSIT AND HOV PROJECT  
ENVIRONMENTAL ASSESSMENT