

Funding Alternatives for Improvements to the Highway 217 Corridor

Prepared for

Metro

by

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Funding Options for Highway 217: Executive Summary

Highway 217 is the primary north-south highway serving eastern Washington County, linking US 20 in Beaverton to I-5 in Tigard. Population and employment growth in Washington County during the 1990s has contributed to increases in traffic levels and congestion in the Highway 217 corridor.

To address existing and anticipated congestion, Metro—in cooperation with Tigard, Beaverton and Lake Oswego, Washington County, Oregon Department of Transportation (ODOT), and TriMet—is studying potential improvements to the Highway 217 corridor. The Highway 217 Policy Advisory Committee (PAC) has approved a range of options to be considered during the first phase of the Highway 217 Corridor Study. The Phase One Highway 217 Corridor Study will provide the PAC with a preliminary technical and environmental analysis of proposed options to improve performance of the corridor.

The purpose of this report is to provide a preliminary assessment of funding and financing options for proposed improvements to Highway 217 so that the PAC can make recommendations on a funding strategy for needed improvements. This preliminary assessment is meant to initiate and inform a discussion about funding at this early stage of planning for improvement options. Detailed information on the design, cost, and performance of improvement options for Highway 217 have not been developed at this time. This report takes a broad-brush approach to estimate the magnitude of likely costs for improvement options, transportation funding in the region, and potential funding sources and financing options for improvement costs. More detailed analysis in each of these areas will be forthcoming as the Highway 217 Corridor Study moves forward.

IMPROVEMENT OPTIONS

Seven sets of alternative capital improvement projects for Highway 217 are currently under development. These improvement options are preliminary and will probably change based on analysis of future demand, environmental issues, cost impacts, and operational performance. The titles of these options describe the primary proposed improvements to the existing four-lane highway:

- Four-lane plus transit and interchange improvements
- Six-lane options
 - a. Six-lane without interchange improvements
 - b. Six-lane plus braided ramps or consolidated interchanges

- c. Carpool lane
- d. Rush-hour toll lane
- e. Six-lane with ramp meter bypass
- Eight-lane

The eight-lane option would require additional right-of-way and reconstruction of every interchange, resulting in significant environmental and neighborhood impacts and higher construction costs. This option is not included in the Phase One Highway 217 Corridor Study but may be considered in Phase Two if projected traffic demands cannot be met with other options.

In addition to these roadway options, the Phase One study will identify needed bike, pedestrian, and local street connections needed to improve performance of the Highway 217 corridor. This report focuses on costs for improvements to the roadway and interchanges on Highway 217.

MAGNITUDE OF FUNDING NEEDED

Cost estimates for Highway 217 options currently under consideration have not been developed. However, some estimate of the magnitude of costs for Highway 217 options is necessary in order to assess the level of funding needed to pay for them. We use an order-of-magnitude cost estimate of \$330 million for options that add a third lane to both directions of Highway 217, be it a general purpose lane, carpool lane, or rush-hour toll lane. This cost estimate includes several braided ramps, pavement, retaining walls, and reconstruction of several overpasses. It also assumes that the carpool or toll lane would be separated by painted stripes without barriers or exclusive access ramps.

Roughly \$20 million in revenue per year is needed to finance total costs of \$330 million, assuming financing the costs over 30 years at an annual interest rate of 5%.

POTENTIAL REVENUE FROM EXISTING FUNDING SOURCES

REGIONAL FUNDING

The *2000 Regional Transportation Plan (2000 RTP)* identifies future transportation improvement projects needed to implement the region's 2040 Growth Concept. These projects form the 2020 Priority System, which includes improvement projects that have an estimated total cost of \$7.6 billion in 2003 dollars.

Funding available for transportation projects, however, is substantially less than the cost of the Priority System. The *2000 RTP* estimates total

funding available for transportation projects through 2020 is \$3.2 billion in 2003 dollars,¹ leaving a funding shortfall of \$4.4 billion in the region over the next twenty years.

The *2004 Federal Update to the Regional Transportation Plan (2004 RTP)* identifies a 2025 Financially Constrained set of projects that can be constructed with the expected level of funding available in the region over the next twenty years. On Highway 217, the Financially Constrained system includes construction of a third lane on northbound Highway 217 between Canyon Road and US 26, with a total cost of \$31 million.

In addition to this \$31 million project on Highway 217, the Financially Constrained system in the 2004 RTP includes numerous other improvement costs in the Highway 217 corridor with a total cost of \$380 million funded by a mix of local, County, State, and Federal funds. These projects include improvements to Highway 26 and I-5 connections to Highway 217, improvements to arterials with interchanges on Highway 217, improved transit services, and improved connectivity in the bicycle and pedestrian system. While these projects are necessary for efficient operation of Highway 217 and to support the Highway 217 improvement options under consideration, these projects are not on the highway itself and will not contribute funding toward the \$330 million cost of the six-lane options for Highway 217. These projects are assumed to be in the base case scenario of improvements to Highway 217 that will occur with or without the options currently under consideration.

The *2004 RTP* identifies a 2025 Illustrative System that defines the universe of transportation projects that can be included in the Financially Constrained system of projects that are eligible for Federal funding. The Illustrative System includes several components of the Highway 217 options, including increased capacity and/or braided ramps at high-priority interchanges, reconstruction of the 72nd Avenue interchange, and capacity improvements on Highway 217. These projects have a total cost of \$137 million.

Fully funding projects in the 2025 Illustrative System would require a major increase in regional transportation funding. Metro is currently heading up a major regional transportation funding initiative and recent actions indicate some willingness to increase funding at the State level. However, it does not appear that any initiative currently under consideration will fully fund projects in the 2025 Illustrative System.

With any funding increases that are less than the full cost of projects in the Illustrative System, projects on Highway 217 must compete with other projects in the region for funding. Components of improvement options for Highway 217 that are not included in the Illustrative System are not eligible

¹ Costs for the Financially Constrained, Priority, and Preferred transportations systems in the *2000 Regional Transportation Plan* are taken from the Metro Fact Sheet "Funding Regional Transportation Priorities: Implementing the Regional Transportation Plan," 2003.

for funding through the Metropolitan Transportation Improvement Program and Transportation Priorities process. Periodic updates of the RTP will provide an opportunity to add projects on the Highway 217 corridor to the RTP.

Thus, expected funding from existing regional sources for Highway 217 improvements is \$31 million with no increases in regional funding and up to \$168 million with increases in regional funding to fully fund the Illustrative System, given the projects currently included in the RTP. The addition of Highway 217 projects during updates of the RTP would increase the potential regional funding available for improvement options.

COUNTY FUNDING

The *Washington County 2020 Transportation Plan* uses a process similar to the RTP to identify future transportation needs and funding sources for these needs. The *2020 Transportation Plan* identifies transportation improvements needed on County facilities that have a total cost of \$1.1 billion in 2002 dollars. However, the expected revenue available for these projects is \$525 to \$833 million, leaving a funding shortfall of \$308 to \$617 million over the 2000–2019 period.

In addition to a funding shortfall for needed capital improvement projects, Washington County also faces a funding shortfall of \$242 million for maintenance of County transportation facilities.

Despite these funding shortfalls, Washington County invests substantial funds in transportation improvements in the County. The County's Major Streets Transportation Improvement Program (MSTIP) currently generates \$20 million per year for transportation improvements from property taxes. MSTIP is a joint effort of Washington County and cities within the County. Projects funded by MSTIP are distributed among multiple projects across the County. County Traffic Impact Fees (TIFs) currently contribute another \$4 million per year for improvements to County facilities.

MSTIP revenue is a significant source of funding for the \$380 million of planned improvements to arterial street, bike and pedestrian facilities, and commuter rail service in the Highway 217 corridor. These improvements are needed for efficient operation of Highway 217 and to support improvement options under consideration. MSTIP funds have only been used in limited instances for large projects on regional facilities such as the \$330 million for six-lane options on Highway 217. However, MSTIP funds may be available for Highway 217 options if they are broken into smaller projects that may be more appropriate for funding through the program.

As an ongoing funding source, MSTIP has the potential to support bonds to fund Highway 217 projects. However, the project would have to compete with the long list of unmet local needs identified above. \$1 million per year for 30 years would finance \$15 million of project costs assuming an annual interest rate of 5%.

POTENTIAL FUNDING FROM NEW REVENUE SOURCES

The summary of potential funding from existing sources shows that some additional sources of funding will be necessary to fund improvement options for Highway 217. This is true even if the State or region takes action to increase transportation revenue to fund all projects in the 2025 Illustrative System. We assessed potential funding from sources at the federal, state, regional, and local level.

INCREASES IN FEDERAL REVENUE

At the Federal level, the Transportation Equity Act for the 21st Century (TEA-21) expired last September and is up for reauthorization. TEA-21 is the primary transportation funding legislation at the Federal level, and it authorizes most of the Federal transportation funding programs such as the Surface Transportation Program that distribute gas tax and other revenues to states. Any increase in Federal funding in the region available through existing programs would likely be split among unfunded projects in the RTP.

In addition to increased funding through existing programs, it is possible for specific transportation projects to receive funds earmarked for that project in funding legislation. ODOT's Federal lobbyist reports that the largest amount of earmarked funds for a project in Oregon was about \$20 million, and that level of funding is the most he would expect in an earmark for Highway 217 alternatives.

INCREASES IN STATE REVENUE

As at the region and county level, maintenance and capital improvement needs at the State level far exceed the level of available funding. The 2003 the Oregon Legislature passed the Oregon Transportation Investment Act (OTIA) III to address deteriorating bridges and other unfunded transportation needs in Oregon. OTIA III includes funds for expansion of the State system. Most of this funding has already been programmed for other projects. There is \$100 million in statewide funding for modernization projects that will be distributed to regions. Numerous other projects have been under discussion for this limited source of funding, so it is unlikely that Highway 217 projects will be funded in this package. Future funding initiatives at the state level, however, could provide other opportunities to fund Highway 217 projects. The level of funding available from future initiatives is highly speculative at this time.

REGIONAL AND LOCAL FUNDING SOURCES

It is possible that Highway 217 can receive earmarked Federal and State funding in the future. Federal and State funding, however, is speculative and is unlikely to fully fund improvement alternatives for Highway 217. Some

additional sources of regional or local funding will probably be needed to construct these improvements.

TOLLS

Two of the Highway 217 options under consideration, the rush-hour toll lane option and ramp meter bypass option, would charge tolls on vehicles using the improved facilities. The ramp meter bypass option would add a toll lane to Highway 217 access ramps to allow vehicles paying the toll to bypass the ramp meters and enter the highway without stopping.

To estimate the potential funding from these tolling options, ECONorthwest conducted a preliminary “back-of-the-envelope” calculation of toll revenues based on detailed models for toll facilities on other roadways and assumptions about local conditions.

Our estimate for the rush-hour toll lane option results in toll revenue with a net present value of \$326 million to \$546million (assuming a 3% discount rate over 30 years). This range of values represents a range of optimistic and pessimistic assumptions for operation of the facility.

Our estimate for the ramp meter bypass option results in toll revenue with a net present value of \$120 million to \$193 million. This range of values represents a range of optimistic and pessimistic assumptions for operation of the facility.

This preliminary analysis shows that the level of toll revenue can vary widely given relatively small changes in the assumptions used to estimate revenue. In addition, the level of toll revenue will depend in part on the design of tolled facilities. A more detailed analysis of potential toll revenues is being developed for the Highway 217 Corridor Study.

Despite the uncertainty around the level of toll revenue, our preliminary analysis shows that tolls can be a significant funding source for Highway 217 improvements. Our analysis suggests that tolls have the potential to substantially or completely fund the rush-hour toll lane option, and can be a significant part of a funding package for the ramp meter bypass option.

Since toll revenues would be generated by Highway 217 facilities, this funding could be dedicated to paying for construction and operation of the Highway 217 facilities. In this manner tolls have a significant advantage over other transportation funding sources, which could be used on any of the numerous unfunded projects and maintenance needs in the region. However, as a new funding source, implementing tolls may face resistance from the public and equity issues for highway users must be addressed.

LOCAL IMPROVEMENT DISTRICTS AND URBAN RENEWAL

These funding mechanisms are typically not used for transportation facilities that serve a large region such as Highway 217, because the benefits

from these facilities are spread across a large area. However, interchange improvements including braided ramps and tolled access ramps can have positive benefits for property in the area surrounding the interchange, making funding from these sources appropriate.

Local Improvement Districts and Urban Renewal Districts have potential to generate substantial levels of revenue for transportation improvements. Several Urban Renewal Districts in the Portland area generated annual revenue of \$3.4 to \$9.4 million in 2003–04. Urban Renewal Districts must be approved by voters in the jurisdiction in which the District is established, and they reduce funding to jurisdictions that levy property taxes in the District. Urban Renewal Districts are currently under consideration as a funding source for commuter rail stations, some of which are near the Highway 217 corridor.

Revenue from Local Improvement Districts (LIDs) is limited by the willingness of property owners to support creation of such a district. For example, to generate a total of \$10 million, an LID with an area determined by a mile radius from an interchange would need to assess \$6,600 per acre on property in the District. This assessment could be spread out over time (\$660 per acre over ten years, for example), and the resulting revenue can be bonded to finance short-term expenditures. LID assessments can also be based on the level of trip generation, amount of street frontage, and other measures.

GENERAL TRANSPORTATION FEES AND TAXES

General transportation fees and taxes such as a gas tax, vehicle registration fee, street utility fee, and property taxes have the capacity to generate sufficient amounts of revenue for capital improvements and are relatively stable.

Table 1 shows the rates that would be needed for each funding source to generate revenue of \$10 million per year given existing conditions in Washington County. Funding for Highway 217 improvements could include all or a portion of revenue generated by an increase in general transportation fees and taxes along with revenue from other funding sources.

As an ongoing funding source, these funding sources have the potential to support bonds to fund Highway 217 projects. \$10 million per year for 30 years would finance \$150 million of project costs assuming an annual interest rate of 5%.

These general transportation fees and taxes are generally assessed over a wide area, often a county or multi-county region, so revenues from these sources are often distributed across maintenance and improvement projects in the area where the fee or tax is assessed. These funding sources are also identified by the RTP and *2020 Transportation Plan* as a potential source of revenue for unfunded project needs at the region and County level. Revenue from these sources could be used for a wide variety of transportation projects

and, in the case of property taxes, other (non-transportation) public expenditures. For these reasons, pursuing funding from these sources for Highway 217 improvements will likely lead to a countywide or regional discussion of transportation funding needs and the importance of Highway 217 improvements relative to other transportation needs.

Table 1. Rates needed for funding sources to generate \$10 million per year in Washington County

Funding Source	Rate
Vehicle Registration Fee (per year)	\$20
Gas Tax Increase (per gallon)	\$0.05
Street Utility Fee (\$ per year per household)	\$60
Property Tax (per \$1,000 assessed value)	\$0.32

Source: ECONorthwest.

POTENTIAL NEXT STEPS

The analysis of existing funding sources and potential new funding sources in Chapters 3 and 4 suggest the following steps that may be pursued to create a funding strategy for Highway 217 improvements:

- Metro, Washington County, and city officials should work with Federal and State agencies to convey the need for improvements to the Highway 217 corridor and to try to secure funds through future earmarks or additional Federal and State funding that may become available.
- Improvements needed in the Highway 217 corridor should be included in subsequent updates of the RTP and Washington County TSP so that they can be eligible for funding from existing program and formula allocations.
- Continue to explore the potential funding generated by tolled facilities. Our preliminary analysis suggests that tolls have the potential to substantially or completely fund the rush-hour toll lane option, and can be a significant part of a funding package for the ramp meter bypass option. Thus, one funding strategy for Highway 217 improvements is to build those components of the alternatives that are most likely to pay for themselves through toll revenues.
- Local Improvement Districts or Urban Renewal Districts are potential sources to help fund improvements to Highway 217 interchanges that create strong benefits for surrounding property. This funding can be a component of an overall package for improvements to the corridor.
- Ensure that Highway 217 needs are considered in discussions at the regional and county levels about strategies to increase overall funding for needed transportation projects.

- Highway 217 improvements should be built in segments and phases as funding becomes available.