

Testimony to the Joint Transportation Committee,

Joe Cortright

December 10, 2020

- *The Oregon and Washington transportation departments understated the funding gap for a revived I-5 Columbia River Bridge by more than \$1 billion*
- *Correcting for an arithmetic error increases the gap between identified revenues and potential costs from \$2.3 billion to \$3.4 billion.*
- *ODOT & WSDOT also used too low an inflation factor for escalating project costs, understating total costs by a further \$680 to \$860 million.*
- *Preliminary estimates appear to leave out costs of the revived planning effort and compensation to river users for the new bridge's lower navigation clearance.*
- *And ODOT and WSDOT have a history of under-estimating costs and over-estimating revenues.*

The dreadful transportation news from the Pacific Northwest this month is the continuing plans of the Washington and Oregon transportation departments to revive the years-dead Columbia River Crossing project. That project foundered in 2014, after nearly a decade of planning—and roughly \$200 million spent on staff and consultants—because neither state had the money to pay for the project.

This past year, the two states have scraped up another \$50 million and are hiring consultants and dusting off the old CRC plans, with the thought of reviving the project. They've concocted a totally false story that if they don't start construction on a new bridge by 2025, they'll have to repay the US Department of Transportation the \$140 million in federal money they spent earlier. As we demonstrated a year ago, that claim is incorrect, Federal Highway Administration regulations provide that if the states select the "No-Build" alternative at the end of the NEPA review process, there is no repayment liability.

But now, as the last time round, the big issue is who will pay for the project. And neither state has the money. Last week, the two state DOTs released their "Draft Conceptual Finance Plan," which isn't so much a plan as it is a picture of giant hole in the ground that they'd like to fill with money, if they can find some. As Clark County Today reported, money is still the sticking point for this project:

Sen. Lee Beyer (Oregon's 6th District) stated he believed the major problem of the project will be "an inability to fund the project."

Bottom line on the plan: The two DOT's told the legislators overseeing their work that the estimated size of the hole is between \$1.8 and \$2.3 billion. Senator Beyer seemed to express considerable skepticism that even this range was within reach.

But even if one believes their cost estimates and revenue projections—and one shouldn't as we'll explore in a minute—

the two agencies couldn't even do the arithmetic correctly to state the actual range of estimates of the size of the hole in their finance "plan." The real gap, according to the two DOTs' own numbers ranges as high as \$3.4 billion, **more than a billion dollars higher** than the maximum gap they estimated.

Here's how they made their mistake. The DOTs constructed "high" and "low" estimates of revenues and expenditures for each of two alternatives (a widened freeway plus bus rapid transit system, and a freeway plus light rail line). For each cost and each revenue estimate has a separate high and low estimate. They computed the range of estimates by combining the low estimate of costs to the low estimate of revenues and comparing it with the high estimate of costs and high estimate of revenues for each alternative. (The red arrows on the table below show how they've lined up the low estimates of cost with the low estimates of funding, and likewise with the two high estimates).

Review of Preliminary Scenarios and Fun


Scenario	Transit Mode	Cost Assumptions		Funding Assumptions			
		High/Low	Cost (YOES)	High/Low	FTA Grants	Toll Bond Proceeds	Other Funding
1A	LRT	Low	\$3.12 B	Low (More Conservative)	\$0.30 B	\$0.85 B	\$0.25 B
1B		High	\$4.01 B	High (More Optimistic)	\$0.93 B	\$1.30 B	\$0.31 B
2A	BRT	Low	\$3.17 B	Low (More Conservative)	\$0.25 B	\$0.85 B	\$0.24 B
2B		High	\$4.25 B	High (More Optimistic)	\$0.73 B	\$1.30 B	\$0.30 B

► Initial Estimated Funding Gap is \$1.8 to \$2.3 billion (YOES)

ODOT's incorrect table claiming a \$1.8 to \$2.3 billion gap.

But that's wrong: The true *range* is illustrated by combining the *low* range of costs and the *high* range of revenues and comparing it to the *high* range of costs and the *low* range of revenues. The following chart fixes the error in ODOT's estimates, and now compares a combination of the low range of revenues with the high range of expenses, showing that there's a potential funding gap of up to \$3.4 billion—fully a billion dollars more than acknowledged in ODOT presentation. We've literally just re-arranged the “funding assumption” rows in the ODOT chart above to line up the “low cost” assumption with the “high revenue” assumption, and the “high cost” assumption with the “low revenue” assumption, and then recalculated the values in the right-most column to reflect this change. This generates the correct range of estimates of the gap implied by these figures.

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► Initial Estimated Funding Gap is ~~\$1.8 to \$2.3 billion~~ **\$0.8 to \$3.4 billion**

Our corrected table shows the real gap could be as high as \$3.4 billion.

The truly risky case here, and the one the states need to plan for if they're moving forward, is a project that has costs at the high end, and that has revenues at the low end. And in that case the gap is roughly \$3.4 billion.

Now it's true, that under the most optimistic reading, (high revenues and low costs) the gap might be only \$800 million), but what this presentation has done is greatly overstate the precision and understate the financial risk associated with this project. Rather than being a relatively narrow gap of \$2 billion plus or minus a couple of hundred million, the range of possible estimates of the gap are from a little less than a billion to nearly three and a half billion. But that's not all.

But even these figures can't be trusted.

There is, of course, another shoe (or two) that will drop here: The two DOTs, ODOT in particular, have a lousy record in accurately forecasting project costs. Less than a year ago, ODOT bumped up its cost estimate for the I-5 Rose Quarter project (just a few miles south of this proposed bridge) by 75 percent, from \$450 million to as much as \$800 million. The estimates presented here are described as “initial”—they’ve simply been extracted from 2012 vintage CRC estimates, and inflated to current and year-of-expenditure dollars. Already, these estimates are probably low.

For starters, in inflating the estimates from 2012 levels to 2020 levels, the two DOTs have pegged annual construction cost inflation to 2 percent per year. But in the real world, according to the US Department of Transportation, highway construction costs have risen at an annual rate of 3.0 percent from the third quarter of 2012 to the third quarter of 2019 (the latest period for which data are available. This higher actual increase in highway costs already recorded between 2012 and 2020 means that ODOT and WSDOT have underestimated the current (2020) cost of the base CRC project by about *a quarter of a billion dollars*. Assuming that they similarly under-estimate inflation over the next decade (using a 2.0 percent inflation factor, rather than the 3.0 percent inflation factor we’ve experienced over the past decade, increases the year of expenditure cost of the project to between \$4.0 billion and \$5.7 billion, an increase of between \$680 million and \$860 million from the estimates made by the DOTs. These changes represent an increase in the revenue “gap” for the project. Combined with the earlier arithmetic error

in calculating the range (above) that means that the funding gap could easily be more than \$4.2 billion.

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			Bridge + LRT Proj IBR Program Conceptual C (2012 \$)	(2020 \$)
ODOT/WSDOT Estimate				
	Low	2.00%	2,350	2,740
	High	2.00%	3,330	3,960
Highway Construction Cost Index Estimate				
	Low	3.00%	2,350	2,980
	High	3.00%	3,330	4,220
Delta				
	Low		-	240
	High		-	260

But there are other problems with the gap estimate. While the new revenue estimates count the \$50 million Oregon and Washington have chipped in for the renewed planning effort, but there's nothing that indicates that those costs were added to the

old 2012 estimates of construction costs (which assumed planning was essentially complete). It's also unclear whether the project costs include any of the promised \$86 million compensation payments for river users whose access to the river will be impaired by the proposed bridge's new fixed span. And since the agencies haven't designed or selected the project, it's impossible to say what the real cost might be. But we know one thing for sure: the state DOTs almost never guess low.

Both ODOT and WSDOT routinely go over budget on major projects. WSDOT is already \$223 million over budget on the Alaskan Way Viaduct's replacement tunnel, and faces an unresolved lawsuit for \$480 million more in costs associated with a failed tunnel boring machine. ODOT's largest recent project, a five-mile widening of Highway 20 was 5 years late and more than \$200 million over budget. A series of major ODOT projects over the past two decades have experienced cost overruns averaging 200 percent. When something is called a "draft conceptual" finance plan, that's simply bureaucratic code for "we're low-balling the cost estimate now and we'll certainly raise it later."

Similarly, the two agency's have equally lousy in estimating revenues, and most notably, toll revenues. Back when the CRC was being planned, WSDOT was in the process of developing a financial plan for the SR 99 deep bore tunnel under Seattle (which replaced the now-demolished Alaskan Way viaduct). WSDOT confidently told the state legislature that tolling the new tunnel would generate \$400 million toward its construction costs. Even before the tunnel was built, that

number was cut in half; current experience shows that the revenue could be even less than that.

So, all in all, the financial exposure to Oregon and Washington is easily in the range of \$4 billion, but is likely to go up from there, as the project will no doubt cost more, and tolls will likely generate less revenue than forecast.

It's alarming that with a \$50 million budget, and with responsibility for a multi-billion dollar project, Oregon and Washington's DOT's could make a billion dollar math error in a such a vitally important calculation. In doing so, they understated the liability the two states face, and created a false illusion that there's a narrow range of uncertainty about the size of the gap the project faces. Is this incompetence or deceit? Can it be both?