

Submitter: Jonathan Knudtsen

On Behalf Of:

Committee: Joint Committee On Transportation Reinvestment

Measure, Appointment or Topic: HB2025

Dear Co-Chairs McLain and Gorsek and Members of the Committee,

My name is Jonathan Knudtsen. I am a professional engineer licensed in Oregon, and my primary practice is bridge engineering. I am writing today in support of House Bill 2025. The bill appropriately prioritizes maintenance and replacement of the state's aging civil infrastructure over highway expansion, and it moves in the right direction with respect to implementing cost controls and appropriate oversight of large infrastructure projects. I urge the legislature to maintain this balance, while keeping (and ideally very clearly defining) auditing and accountability for large projects. I wish to offer some perspective on both subjects.

ODOT owns and maintains over 2,600 bridges. The design service life of a bridge is 75-100 years. It is often cost-prohibitive to keep bridges in service past the age of 75-100 years. Concrete cracks; rebar corrodes; steel girders and trusses gradually weaken as they are loaded and unloaded by the passage of thousands of trucks. It is often necessary to strengthen old bridges or to replace key components. I have personally worked on many such projects. For some bridges, the funds may not be available, and they must be posted to keep heavier trucks such as 18-wheelers off of the bridge.

With an inventory of 2,600 bridges and (generously) a design life of 100 years, the state should be aiming to replace about 26 bridges a year. This is not happening. Per ODOT's 2024 bridge report, the average replacement rate is three bridges per year-- at which rate, the report notes, it will take 900 years to replace all of the state's bridges. The need is especially urgent, as the deadline for replacing the ~1,000 bridges built in the 1960s highway expansions is rapidly approaching. I urge the legislature to set aside adequate funding for maintaining and replacing our bridges.

I also wish to offer a few comments on the state's large and over-budget projects. Poorly-designed and poorly-managed projects suck up resources from around the state, and limit opportunities to fix other problems. Keeping the scope and budgets reasonable for these projects should be a top priority for the state.

I have followed the state's mega-projects closely, and I have observed that they accumulate components that, on their own, would never pass a benefit-cost analysis. The IBR is a good example of this. The interchanges to the south and north of the main bridge are functional and do not constrain I-5 mainline capacity. The interchange bridges were built in the 1980s and have another 50 years of service life.

They can all accommodate an 8-lane I-5. Widening I-5 to 10 lanes serves little purpose at present because I-5 is six lanes through Portland (even after the Rose Quarter project is complete). Yet because a mega-project is taking place, a string of high-cost, low-value interchange projects have been added in. Nor are these costs small. Almost half the IBR project is allocated to low-value interchange improvements and low-value widening that will only be useful if/when the reconstruction of I-5 (including the rebuilding and/or reconfiguration of the freeway loop) is complete. The billions of dollars allocated to these low-value elements are sorely needed elsewhere, notably in downtown Portland and--as noted above--for replacement and maintenance of bridges throughout the state.

My suggestion for reining in these costs is the creation of a high-level oversight role within ODOT that is incentivized to find savings in the budgets of mega-projects. Evaluation and assessment of project scope and alignment with goals should be carried out at project initiation and at multiple stages of development. A properly incentivized and empowered agency will be able to discover large savings in mega project budgets. This will allow for more appropriate allocation of state funds.

Thank you for your consideration.

Sincerely,
Jonathan Knudtsen, PE