

# MEMORANDUM

**TO:** Joint Interim Committee on the Interstate Bridge  
**FROM:** Martin Slapikas, Hayden Island property owner, Taxpayer  
**DATE:** December 15, 2023  
**SUBJECT:** Joint meeting with the Washington State Legislature’s Joint Legislative Action Committee Regarding the Construction of a new Interstate 5 Bridge.

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This is a continuation of my comments prepared for the November 28, 2023 meeting with additions for this session of the Joint Interim Committee On The Interstate 5 Bridge .

The Interstate Bridge Replacement (IBR) program would replace the aging Interstate 5 (I-5) bridge across the Columbia River with a modern, seismically resilient, multimodal structure.<sup>1</sup>

**Question: #1.** To what level of seismic resiliency will the crossing be built?

If a Cascadia Subduction Zone (CSZ) Earthquake, Magnitude 8 or 9 struck the Portland/Vancouver communities, the 1/2022 ECONorthwest, SALUS RESILIENCE, ENDURING ECONOMETRICS Study and the 10/2023 Portland State University Institute for Sustainable Solutions Study predict destruction and slaughter on a mass scale.

The bridge that could withstand a (CSZ) Earthquake, Magnitude 8 or 9 might still be standing. However, communities of all types of folks would be seeking shelter or escape from the predicted damage to petroleum, LNG storage facilities on the 6-mile Critical Energy Infrastructure (CEI) Hub on the Willamette River.

The damage to the environment, to the people, caught in the disaster is expected to be hazardous and fatal. All of this, and much more, is described in the two studies mentioned above.

**Question: #2.** In what shape would the connecting infrastructure to the bridge be in?  
**#3.** Where are the evacuation routes or lifelines for North Portland, Portland, Vancouver.

The HINooN 10/27/2022 attached submission, ***“Concerns Regarding the Current I-5 Bridge Replacement Project [IBRP]”***, in the section titled **LIMITED ACCESS TO VANCOUVER AND PORTLAND** states, *“I-5 is a major seismic or other major disaster lifeline route in Oregon. Hayden Island is completely dependent on I-5 as its lifeline. This is why it is so important that the design of the I-5 Columbia River crossing, whether bridge or tunnel, is done right.”* The reference to the “lifeline” c

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<sup>1</sup> IBR Modified Locally Preferred Alternative Briefing Packet, May 2022, P. 1.

comes from "*Oregon Seismic Lifelines Identification Project Report*" prepared for ODOT .<sup>2</sup>

My Concerns:

- As consequence of the Critical Energy Infrastructure Hub along with the Cascadia Subduction Zone becoming of concern to the very issue that the IBR program is addressing, I recommend an extension to the 60-day comment period.

This bridge project becomes less of a "congestion or travel time" issue and more of a "threat to our communities' health, existence and survival" issue – a survival of the future of the City of Portland/Vancouver and its people.

**Question:** #4. I-5 is the current lifeline for Hayden Island. Will it remain so during construction?

- A third crossing, bridge, or immersed tube tunnel, across the Columbia River should be first on priority, not just to reduce congestion and improve travel time, but to offer an evacuation route (a lifeline), depending upon the state of the connecting infrastructure, to save lives should such an earthquake and toxic event happen.
- What I am recommending is - The right crossing, right sized, in the proper Location.

These Memorandums, (11/28/2023 & 12/15/2023), reflect the information available as of the date of this submission. They will be updated as additional relevant material becomes available.

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<sup>2</sup> Oregon Seismic Lifelines Identification Project Report, ODOT  
<https://www.oregon.gov/ODOT/Planning/Documents/Seismic-Lifelines-Evaluation-Vulnerability-Synthese-Identification.pdf>

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# Hayden Island Neighborhood Network

2209 N. Schofield Street

Portland, Oregon 97217

## Concerns Regarding the Current I-5 Bridge Replacement Project [IBRP]

10/24/2022

Representative Travis Nelson  
Oregon Legislature

Dear Representative Nelson:

A replacement I-5 bridge would uniquely affect Hayden Island. Situated in the middle of the Columbia River, Hayden Islanders have few access choices, making us entirely dependent on the I-5 Bridge. In addition, the I-5 Bridge goes through the inhabited half of the Island, cutting it in two. The Hayden Island population is over 3,000 full-time residents, and the number is increasing due to new apartment building construction (1).

Here are some of the main concerns of many residents:

### **LIMITED ACCESS TO VANCOUVER AND PORTLAND:**

Limited jobs and services exist on the Island. Islanders regularly travel via I-5 to Vancouver and Washington for groceries and essential services, which (depending on the time of day) is often less congested for islanders than the I-5 south route to Portland.

The IBRP suggests they could add an alternative route across North Harbor for islanders to travel south into Portland. Nevertheless, because this small backroad would be the main roadway for large trucks, including supply chain freight, along with residents traveling for services and jobs in Portland, we expect it would have heavy congestion and safety issues. However, such additional access would provide Hayden Islanders with a long-needed alternative route in the event of an emergency evacuation of the Island. A report prepared by the Oregon Seismic Lifelines Route identification project for ODOT (3) says that a key factor in the resilience of the transportation network is the seismic performance of bridges. Bridges are essential to the post-earthquake mobility of nearly all transportation modes, as they are relied upon to carry goods and people into and out of urban centers after natural disasters. I-5 is a major seismic or other major disaster lifeline route (4) in Oregon. *Hayden Island is completely dependent on I-5 as its lifeline.* This is why it is so important that the design of the I-5 Columbia River crossing, whether bridge or tunnel, is done right.

### **ADDITIONAL EXPENSES CAUSED BY TOLLING:**

Since I-5 is the main roadway for islanders, the planned tolls on I-5 would be detrimental to Islanders daily. The interstate highway has been the only way on and off the Island since the 1970s. It is our

neighborhood road. The Island has a large manufactured homes park, and many low-income residents, in particular, would face economic hardship and stress from the added expenses. There is also a concern that tolls would strongly impact the Jantzen Beach Shopping Center, and many businesses would leave the Island. The loss of local jobs for many islanders, plus the loss of local stores, would have dire consequences for the whole Island.

#### **HIGH BRIDGE SAFETY ISSUES:**

The U.S. Coast Guard (which is an arm of the U.S. Department of Homeland Security) has a Congressional mandate to protect river commerce. An essential aspect is vetting all bridge construction to ensure that existing water traffic can continue to pass underneath while making allowances for industry and the historical trend towards larger vessel sizes. The most critical parameter is the VNC (vertical navigation clearance), which is 180 feet for the Columbia River from its mouth to the BNRR Bridge at Vancouver. The current I-5 Bridge lift span has a VNC of 178 feet, which the Coast Guard states must be maintained to sustain river commerce. This height considers the shipbuilding industries east of the I-5 Bridge, emergency river access to PDX airport, and the trend towards larger ships.

However, because of the problems of building a bridge with a minimum VNC of 178 feet, the Coast Guard recommended to the IBRP that they should build either a low bridge with a Bascule lift span or an immersed tunnel (2). HINooN strongly supports the U.S. Coast Guard and its mandate to protect Columbia River commerce. Moreover, HINooN is troubled by the IBRP's apparent promulgation of misinformation about the viability of these alternatives for improving traffic flow across the Columbia River.

Unfortunately, a multi-modal fixed-span high bridge would subject I-5 traffic traveling over the Columbia River to excessive dangers from the over-steep grades to the top and down again, together with limited lines of sight caused by the bridge hump, especially during inclement weather. In addition, the winter weather dangers experienced on our existing I-5 Bridge (fog and rain, frost, snow, sleet, hail, and ice, including the potentially grave dangers of black ice) would be much worse.

Passageway and roadway grades need to be acceptably safe and not too challenging for cyclists and pedestrians. In addition, pedestrian access needs to cater for baby strollers and people using mobility aids such as wheelchairs and walkers. Moreover, year-round, vehicular bridge access must be safe at all times of the day for heavily-loaded trucks, buses, cars, and commuter light rail (which has strict grade requirements). Catering for all these modes of transportation would extend a fixed-span high bridge to the north and south to an unacceptable degree, potentially making it several miles long and potentially destroying a valuable natural wetlands area just south of North Harbor. Finally, the height and length of the approaches of a high bridge would reduce the feasibility of on/off ramps for Hayden Island due to cost.

Not the least of the problems that a high bridge would cause is the creation of a vast wasteland of concrete pillars and earthen ramps. Not only would this consume a significant portion of Hayden Island's precious and limited real estate, but it would also be detrimental to people working and living under the umbrella of its enormous shadow.

#### **EARTHQUAKE VULNERABILITY:**

We are concerned that the IBRP's current bridge plans specify a bridge that is no more seismically safe than the existing I-5 bridge.

Moreover, we are worried about the dangers of the lack of a solid foundation for a high I-5 bridge over the Columbia River. The CRC project documents that the proposed path crosses over sand and alluvium,

many hundreds of feet deep, material that expert opinion suggests is subject to seismic liquefaction. Moreover, to make a high bridge seismically acceptable would require excessive billions of dollars to the cost compared to other approaches. We have seen expert testimony that a high bridge has a much lower chance of surviving in a severe earthquake than expected for our region. Liquefaction of the deep alluvial river bottom soils would tend to cause a high bridge to buckle sideways. A low bridge with a Bascule lift span, or an immersed tunnel, could avoid this troubling outcome. We are worried that any kind of high bridge design would be highly detrimental to many people in our region in so many ways.

#### **INADEQUATE BIKE AND PEDESTRIAN PATHS:**

While the IBRP bridge proposal includes biking and walking paths, it is unreasonable to expect people to carry their bikes to a height of 60 or 70 feet to get to the new I-5 freeway over the Island or walk uphill to get to the pathway on a spiral staircase. Please note: The I-205 Bridge has a bike path down the freeway center, which can present extreme dangers to cyclists from other road users and directly subject cyclists to increased air pollution effects. We worry that the same scenario is happening with the IBRP proposal.

#### **QUALITY OF LIFE DURING CONSTRUCTION AND HOW THIS WOULD BE MITIGATED:**

If construction starts as presented by the IBRP proposal, we believe the construction equipment would inundate Island residents. As a result, we would experience adverse living conditions, including but not limited to traffic disruptions to everyday life both on the Island and when trying to leave the Island. There would also be increased air pollution, loud noises and vibrations. These problems would seriously impact residents, businesses, and visitors. How would these issues be mitigated?

Note: There are no medical services on the Island. The Fire Station 17 (Hayden Island) EMTs serve people on the Island and have saved many lives here. We have a big question: How will the bridge's construction affect these services?

#### **DISPLACED HOMES:**

Jantzen Beach Moorage (JBMI) is a unique river community with over 150 floating homes, but three rows of homes are in the path of IBRP's planned bridge. These homes would be permanently lost, which would be bad for the residents concerned, but would also increase the costs for the remaining JBMI residents due to fewer homes to share expenses. How will all these homeowners be compensated?

#### **RECOMMENDATIONS:**

HINooN and Hayden Island residents strongly feel that the IBRP must consider the other river crossing options recommended by the Coast Guard. HINooN is apprehensive that the IBRP is not listening to the Coast Guard or Island residents. HINooN believes that the IBRP will continue to push for a 116-foot bridge height, although there is no statutory basis for IBRP.

The IBRP's push for a vertical navigational clearance [VNC] of 116 feet, although 62 feet below the Coast Guard's requirement, still qualifies as a high bridge and has many of the same problems as a 178-foot VNC. Any new bridge across the Columbia River must take into account the combined issues of legal height requirements, grade requirements, and the climate, safety and comfort of travelers and nearby residents. Instead, as strongly suggested by the Coast Guard, the DOTs should look at more straightforward and lower-cost approaches such as:

- i) Low bridge with a Bascule lift span or
- ii) Immersed tunnel

If not, we hope that the Oregon and Washington Legislatures consider redirecting their efforts towards a **third Columbia River crossing** using either the low bridge with Bascule lift span bridge or immersed tunnel options or consider invoking the no-build option.

#### **CONCLUSIONS:**

The IBRP assumes they have a community consensus on the bridge design when the IBRP don't yet know what that design is. Island residents are at ground zero and therefore need to know the exact details of the design. For example, what are the site details for the proposed light rail terminal? Where are the detailed plans for the exit ramps? The Joint Oregon-Washington I-5 Bridge Committee left us feeling like the information we got from it was incomplete. We need more facts and information, and to know that all of our concerns are getting due consideration.

Hayden Island Neighborhood Network [HINooN] asks for a regional plan to improve traffic flow across the Columbia River while protecting river commerce. Our concerns about climate change and the environment led us to advocate retaining the existing I-5 Columbia River Bridge for local traffic (seismically retrofitted) and redirecting the bulk of river-crossing transportation resources into a third river crossing with a Bascule span or submersed tunnel. Whatever is built, we believe it is vital that the project carefully considers the effects of climate change in our Pacific NW weather environment.

Hayden Island does not need continued congestion on a higher, wider, and overly expensive bridge that not only blocks a significant amount of river commerce and marine emergency river traffic for the next hundred years but also destroys Hayden Island.

This letter describes the main concerns of many Island residents. These concerns reflect the information available to HINooN as of the date of this submission. They will be updated as additional relevant material becomes available.

Thank you for your time and attention.

Respectfully,  
Board of Directors,  
Hayden Island Neighborhood Network [HINooN]

#### **References:**

- (1) Hayden Island Civic Life  
[https://www.portland.gov/sites/default/files/2022/hayden-island\\_civiclif\\_0.pdf](https://www.portland.gov/sites/default/files/2022/hayden-island_civiclif_0.pdf)
- (2) Coast Guard Preliminary Navigation Clearance Determination  
[https://www.interstatebridge.org/media/fi2b3xei/ibr\\_next\\_steps\\_bridge\\_permitting\\_june2022\\_remediated.pdf](https://www.interstatebridge.org/media/fi2b3xei/ibr_next_steps_bridge_permitting_june2022_remediated.pdf)
- (3) Oregon Seismic Lifelines Identification Project Report prepared for ODOT  
<https://www.oregon.gov/ODOT/Planning/Documents/Seismic-Lifelines-Evaluation-Vulnerability-Synthese-Identification.pdf>  
Local highways selected for this list includes I-5 and Pacific Highway No. 1 (the California state line south of Ashland to the Washington state line in Portland); I-84, Columbia River Highway No. 2 (I-5 in Portland to US 97 at Biggs Junction); I-205, East Portland Freeway, Highway No. 64 (I-5 in Tualatin to the Washington state line); Oregon Route (OR) 217, Beaverton-Tigard Highway No. 144 (OR 26 in Beaverton to I-5 in Tigard); I-405, Stadium Freeway Highway No. 61 (I-5 at the



south end of the Marquam Bridge to I-5 at the east end of the Fremont Bridge in Portland).

(4) Seismic Lifeline Routes in Oregon

<https://www.co.clatsop.or.us/media/11331>

(5) May 7, 2022, City Commentary. "Oregon and Washington DOTs plan too low a bridge—again", by Joe Cortright.

<https://cityobservatory.org/oregon-and-washington-dots-plan-too-low-a-bridge-again/>

Approved by the HINooN Board, October 25, 2022

*Martin G. Slapikas*

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Martin G. Slapikas, MBA, MPA, PCOP, Vice Chair  
Hayden Island Neighborhood Network (HINooN)

*Ellen M. Churchill*

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Ellen Churchill, Secretary,  
Hayden Island Neighborhood Network (HINooN)  
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I-5/Marine Drive Interchange CWG