

PUBLIC COMMENTS FOR IBR PROGRAM COMMUNITY ADVISORY

Received between February 22, 2022 – March 8, 2022

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3/8/2022

Interstate Bridge Replacement Program

Please accept the attached “CAG Public Comment” for March. 10, 2022 meeting.

Bob Ortblad MSCE, MBA

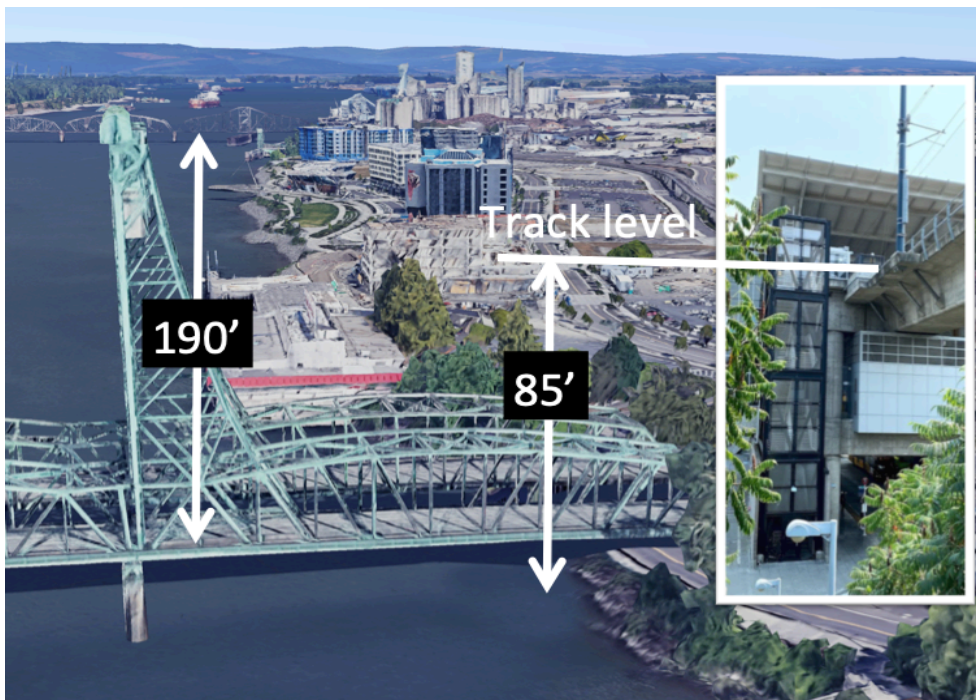
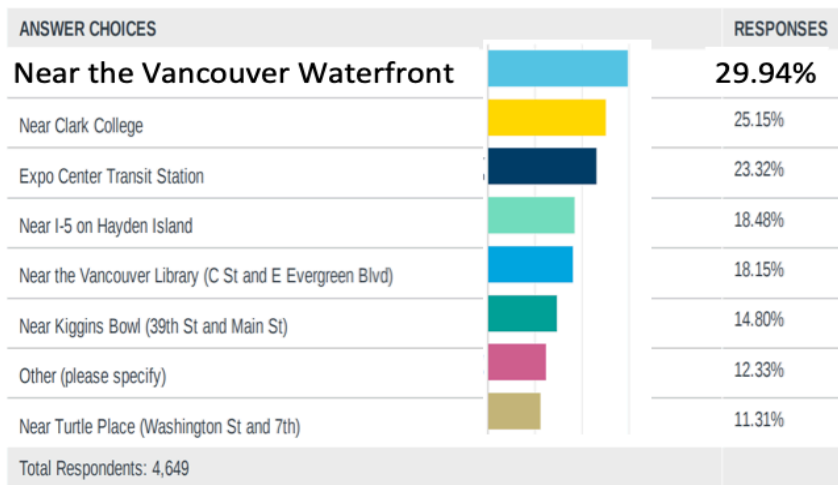
**ADA compliant versions of the attachments can be made available upon request*

The IBR's "Fall 2021 Community Input Survey" showed the most desired light rail station is on the Vancouver waterfront. Unfortunately, a high bridge will have the station tracks about 85 feet above the riverbank. This will require a costly station with elevators and escalators that are frequently out of service.

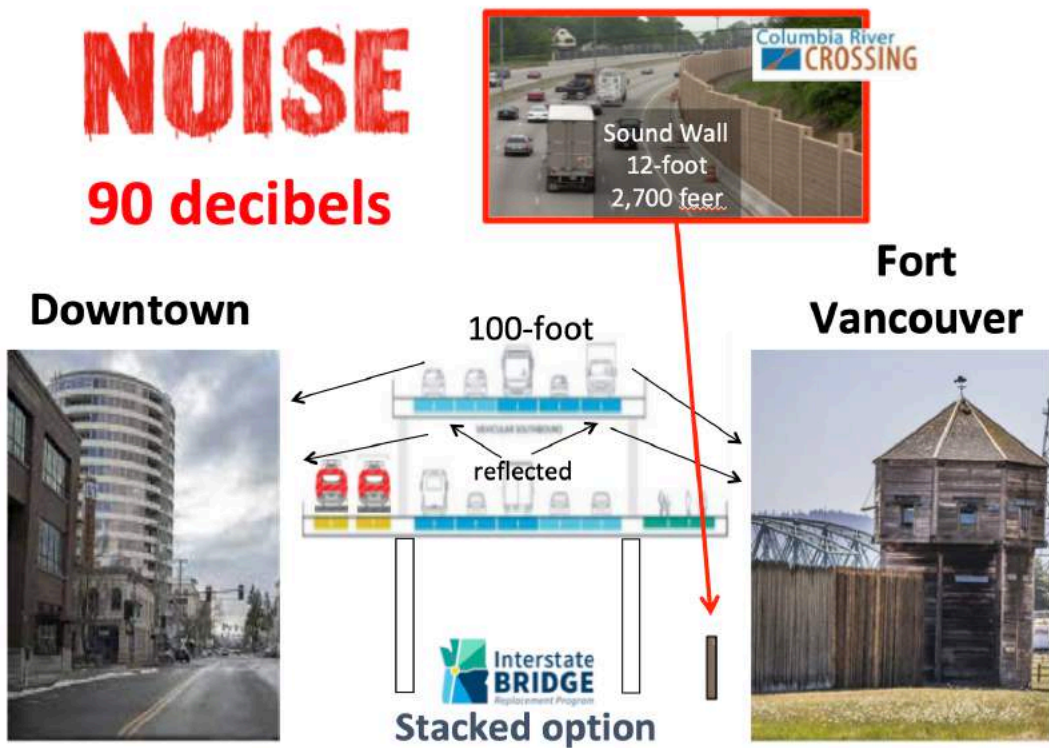
An immersed tunnel will have a station just below ground about few hundred feet from the riverfront.

Interstate BRIDGE Replacement Program **Fall 2021 Community Input Survey**

Which transit station location would you use most often?



The IBR's stacked option will rain down noise and pollution on Vancouver's city center and historic Fort Vancouver for a hundred years. The Columbia River Crossing designed a useless 12-foot sound wall.



WSDOT spent \$2.3M in a failed attempt to silence Seattle's I-5 bridge.

I-5 Ship Canal Bridge Noise Study - 2009
<https://www.youtube.com/watch?v=33vQuOxkrq8>

I-5 Ship Canal Bridge Noise Study - 2010
<https://www.youtube.com/watch?v=sSVBkMu4uIA>

WSDOT failed to silence stacked I-5 Bridge

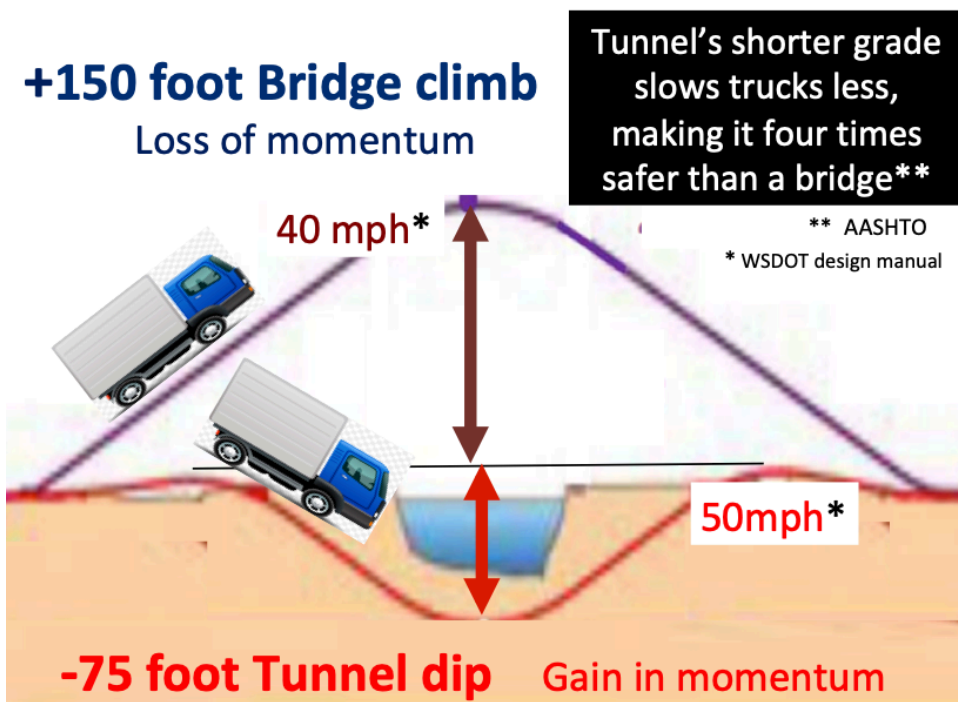
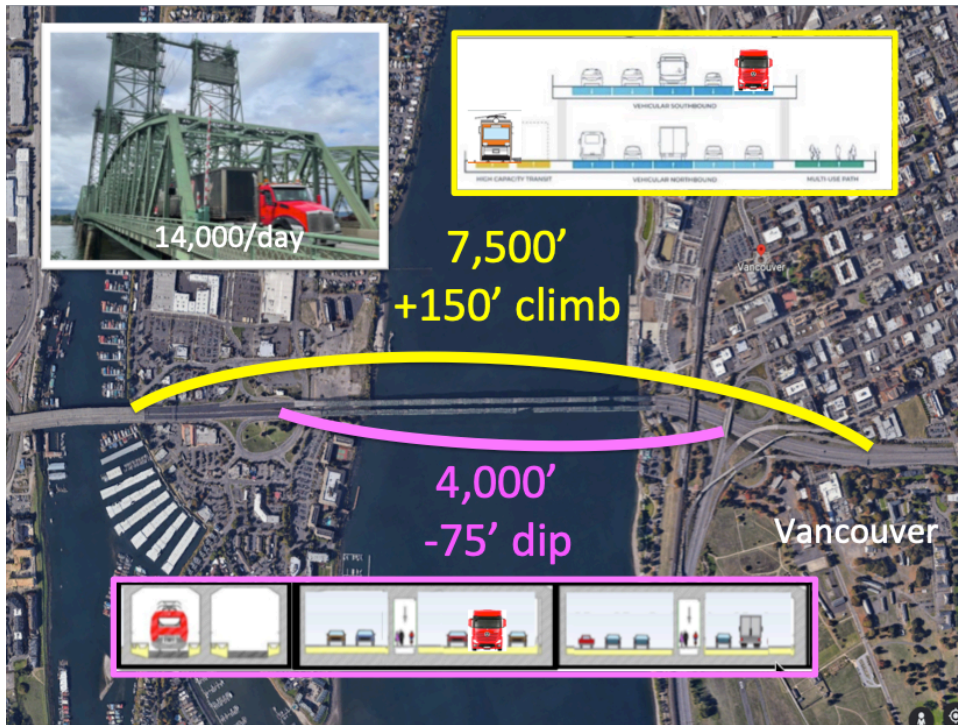
The Seattle Times Nov 4, 2010

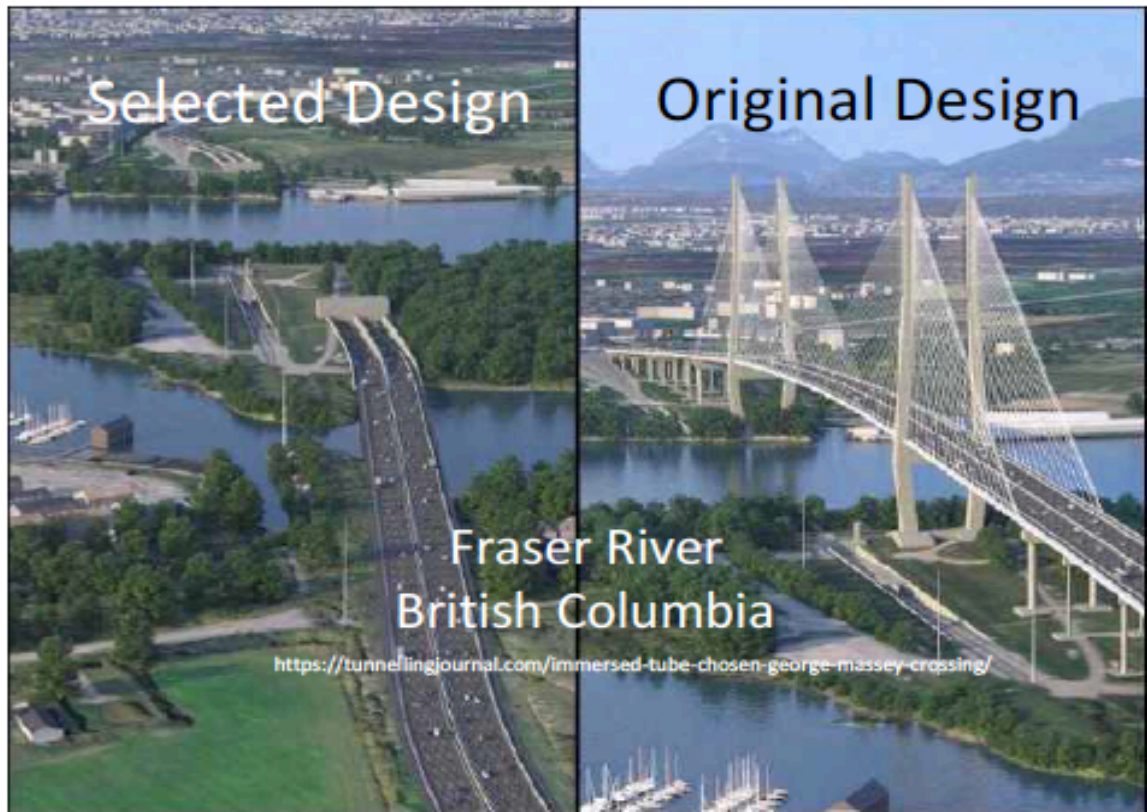
\$2.3M project isn't cutting noise much on I-5 bridge

WSDOT had a contractor install 700 baffles under the highway's upper deck at a cost of \$2.3 million. Tests found a reduction of only a decibel or two.

Using a WSDOT design manual will show trucks will slow by 20 mph on a high bridge but only 10 mph in a shorter immersed tunnel.

An American Assoc. of State Highways (AASHTO) manual shows this 10 mph difference will make tunnel traffic four times safer than a high bridge.





Bridges were originally designed for both the Fraser River and the Fehmarn Baltic Sea crossing. However, after a second analysis by international immersed tunnel engineers, tunnels are now being built.



Federal agencies will see the advantages of immerse tunnel.

FAA clear air path

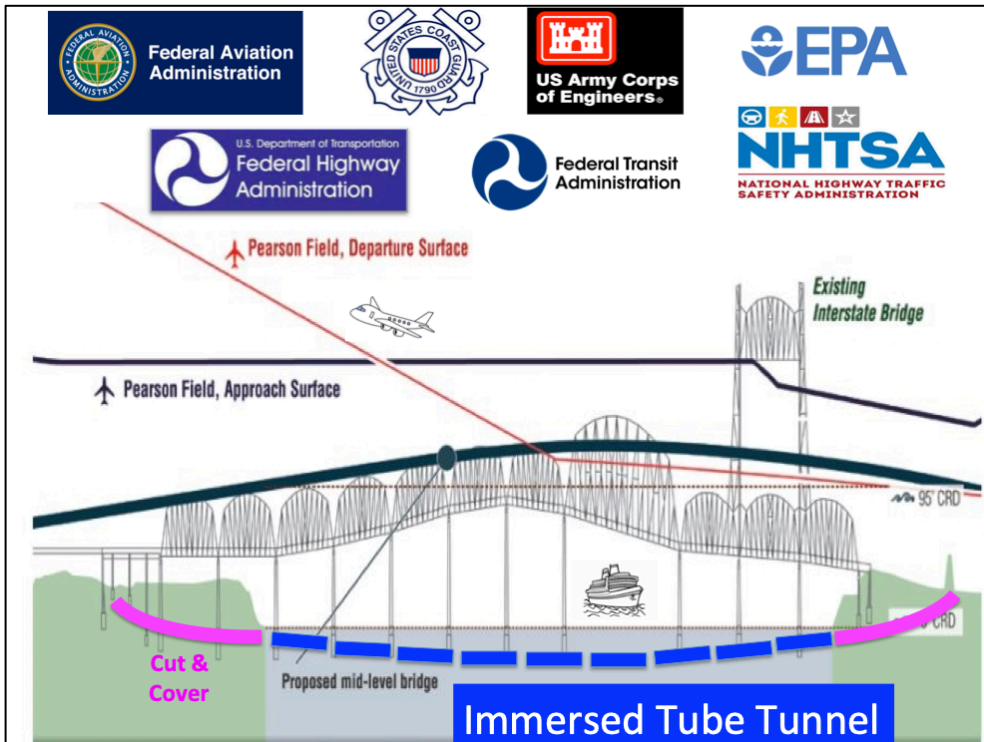
USCG navigation clearance

USACE center channel, no piers

EPA restored river, riverbank

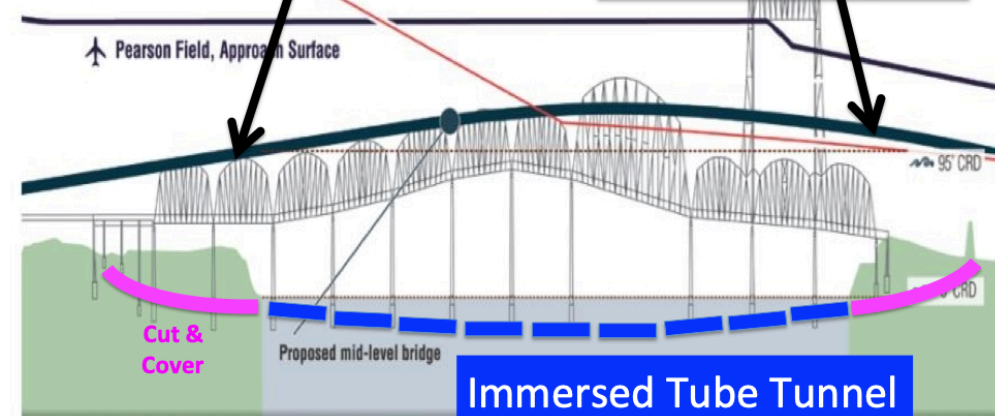
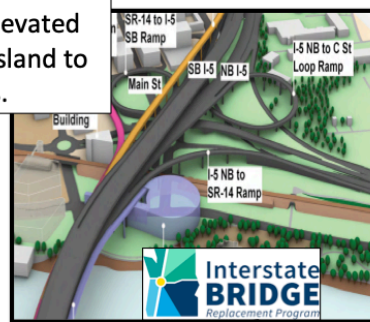
FHWA \$1 billion saved on interchanges

FTA riverbanks rail stations NHTSA protection from weather, safer grades



A new IBR high bridge requires \$500 million elevated interchanges on both Vancouver and Hayden Island to come down a **100 feet** at the riverbanks.

An immersed tunnel can connect to current grade level interchanges, saving a \$1 billion and reducing environmental impacts.

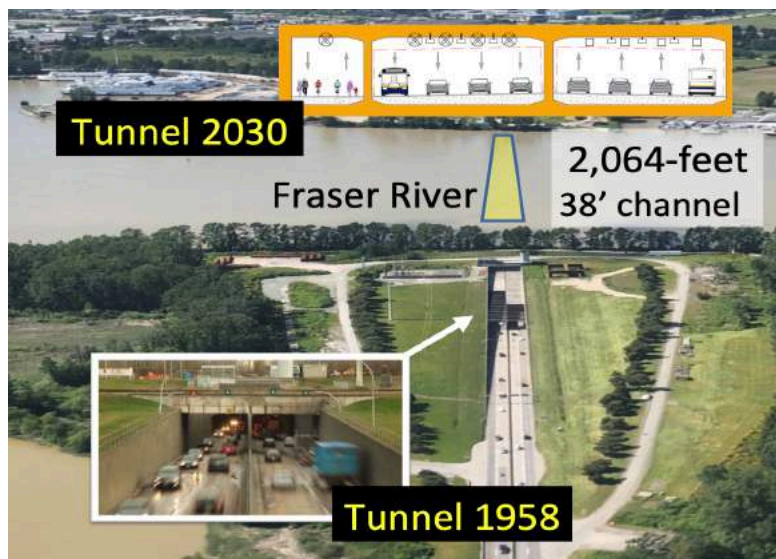


The shallow Columbia River is an ideal immersed tunnel site.

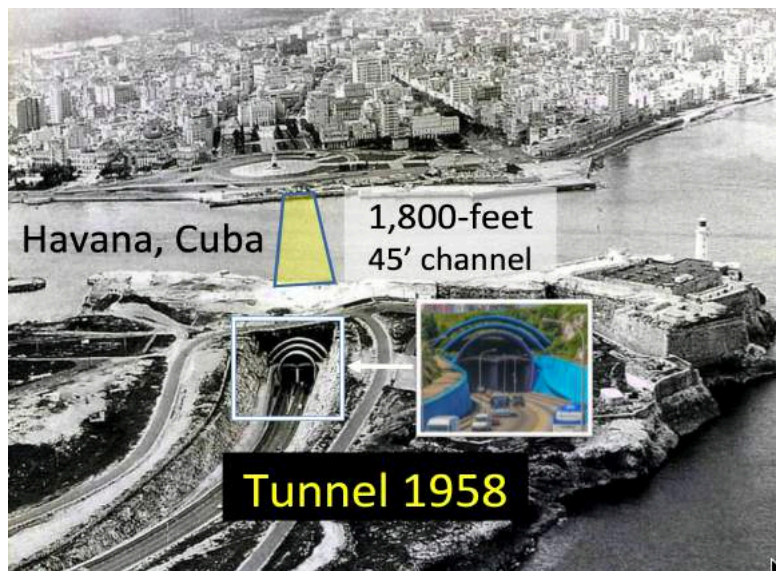
In **1958** Washington and Oregon celebrated the opening of the second Columbia River Bridge, a twin of the first 1917 steel-truss bridge. (**27-foot** river depth)



In **1958** British Columbia opened a four-lane immersed tunnel under the **38-foot** deep Fraser River ship channel. A new eight-lane tunnel (two for BRT) will replace this tunnel in 2030.



In **1958** Havana, Cuba opened a four-lane immersed tunnel under its **45-foot** deep port channel.



*Note both 1958 tunnels are much deeper than the Columbia River's **27-foot** depth.*